



ABN 29 057 616 896

## **ENVIRONMENTAL ASSESSMENT REPORT**

### **PROJECT APPROVAL 142 LOT RESIDENTIAL SUBDIVISION**

### **LOT 171 DP 1081810 HIGHVIEW DRIVE DOLPHIN POINT**

Prepared for:

MALBEC PROPERTIES PTY LTD AND  
ULLADULLA LOCAL ABORIGINAL LAND COUNCIL

SEPTEMBER, 2007



PROJECT APPROVAL  
142 LOT RESIDENTIAL SUBDIVISION

LOT 171 DP 1081810  
HIGHVIEW DRIVE, DOLPHIN POINT



ABN 29 057 616 896

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| <b>SUBMISSION OF ENVIRONMENTAL ASSESSMENT</b>                     |   |
|---|---|
| Prepared under the Environmental Planning and Assessment Act 1979 |   |
| <b>EA prepared by</b>   |   |
| Name  | Stuart Dixon  |
| Qualifications  | B. of Urb. & Reg. Plan., Certified Practising Planner, M.P.I.A.   |
| Address   | 29 Kinghorne Street, Nowra  |
| <b>Part 3A activity</b>   |   |
| Proponent Name  | Allen Price & Associates on behalf of Malbec Properties Pty Ltd and Ulladulla Local Aboriginal Land Council   |
| Proponent Address   | 75 Plunkett Street, Nowra   |
| Land on which activity to be carried out                          | Highview Drive, Dolphin Point<br>Lot 171 DP 1081810   |
| Project   | 142 Lot Residential Subdivision   |
| <b>Environmental Assessment</b>                                   | An Environmental Assessment (EA) is attached  |
| <b>Declaration</b>  | I declare that I have prepared this Environmental Assessment to the best of my knowledge: <ul style="list-style-type: none"><li>• It has been prepared in accordance with the relevant provisions of the Environmental Planning and Assessment Regulation 2000.</li><li>• The information which it contains is neither false or misleading information.</li></ul> |
| Signature   |   |
| Name  | Stuart Dixon  |
| Date  | 7 <sup>th</sup> September 2007.   |







## **EXECUTIVE SUMMARY**

This Environmental Assessment Report (EA) has been prepared in support of a residential subdivision at Dolphin Point, located within the City of Shoalhaven. The application is made pursuant to Part 3A of the Environmental Planning and Assessment Act, 1979 (EP&A). The development is a major project given the location of the site within the Coastal Zone, and the scale of this subdivision, which proposes the creation of in excess of 25 allotments.

The subject site, located at Dolphin Point some 5 kilometres (direct line) from the township of Ulladulla, has an area of 16.39 hectares. The property is bounded by the existing Dolphin Point village to the north and east, the Barnunj State Conservation Area to the south and undeveloped residentially zoned lands to the west.

The site is zoned mostly Residential 2(c) and partly Environmental Protection Ecology 7(a) under the provisions of Shoalhaven Local Environmental Plan 1985. The site has been zoned to allow urban development since 1972 when amendment No. 3 to IDO No. 1 zoned the land for Village purposes. Shoalhaven City Council adopted Shoalhaven Planning Policy No 1 (SPP No. 1) in 2004 to guide the subdivision of the site and this proposal is consistent with its requirements.

The site is well serviced with relevant infrastructure required to support village expansion including reticulated water and sewerage services, power and telephone.

The subdivision provides for the development of 142 residential allotments in a traditional Torrens Title scheme with an initial subdivision of the site into two superlots with development proposed to be undertaken in stages over a number of years dependent on market conditions. **Annexure 1** is a copy of the proposed subdivision layout, prepared by Allen Price and Associates. **Annexure 2** are Design Guidelines prepared by Malbec Properties to be implemented in the further development of the allotments to ensure a suitable built form results at the site.

The property is the subject of a successful land claim by the Ulladulla Local Aboriginal Land Council (ULALC). This proposed development is a joint venture between the ULALC and Malbec Properties which has been granted the necessary joint venture approval by the NSW Aboriginal Land Council (NSWALC) under the Aboriginal Land Rights Act. Under the agreement, development of the site is intended to result in the employment and training of local indigenous people in building and allied trades, construction of residential accommodation within the township of Ulladulla for the local indigenous community, purchase and establishment of a community bus to transport ULALC members, and investment to generate income to support the general operating and administration costs of the ULALC.

This Environmental Assessment Report has been prepared to address the Director-General's Environmental Assessment Requirements (DG EARs). In preparing this Environmental Assessment Report, the following separate reports have been prepared to address the Environmental Assessment requirements:

- *Transport Report for Proposed Residential Subdivision, Dolphin Point* – Colston Budd Hunt & Kafes Pty Ltd (**Annexure 3**).
- *Flora and Fauna Assessment* – Bushfire and Environmental Services (**Annexure 4**).
- *Bushfire Protection Assessment* – Bushfire and Environmental Services (**Annexure 5**).
- *Water Cycle Management Report* – Storm Consulting Pty Ltd (**Annexure 6**); and
- *Aboriginal Heritage Impact Assessment of the Proposed Residential Subdivision of Lot 171 DP 1081810, Highview Drive, Dolphin Point South Coast of New South Wales and Heritage Management Plan* – South-East Archaeology Pty Ltd (**Annexure 7**).

The proposal has been designed mindful of the relevant constraints identified in the above reports, and incorporates the following key features:

- retention of endangered ecological communities;
- provision of public reserves throughout the site consistent with the requirements of SPP No. 1;
- roads to link with the existing and proposed future road network in accordance with SPP No. 1;
- provision of asset protection zones to ameliorate bush fire risk;
- extensive system of pedestrian path and cycleways to encourage out of car trips; and
- drainage infrastructure to protect water quality.

In preparing this Environmental Assessment Report, the following groups/agencies were consulted:

- the Dolphin Point Residents Action Group representing the local community;
- the Turnbull Group (consultants acting on behalf of the owners of the adjoining 'Dairy' site also being developed);
- NSW State Government's Department of Environment and Conservation, and the Department of Planning;
- Shoalhaven City Council (SCC);

- Ulladulla Local Aboriginal Land Council; and
- Infrastructure Service Providers including Integral Energy, Telstra and Shoalhaven Water.

The proposed subdivision has addressed the relevant statutory requirements applying to this Major Project in addition to consideration of the relevant environmental, ecological, natural hazards and social constraints that apply to the site and surrounds.

The various sub consultants reports that have been prepared properly address those matters raised in the DG EARs. The table over page details the relevant sections and annexures of this report which address the specific DG EARs.

The proposal represents a good balance between the reasonable development of a residential resource on lands that have been identified for this purpose for in excess of 30 years, and the appropriate consideration of ecological issues. The design is well considered and gives proper regard to both modern subdivision design, the principles of SPP No. 1, the established character within Dolphin Point and that envisaged by the development of the adjoining lands to the west. It will contribute in a positive sense to the planned expansion of the existing village. The development will also see the use of significant existing infrastructure that has already been invested into the locality to cater for planned additional growth.

The proposal will have a positive impact on the local Aboriginal community due to the range of economic and social benefits derived from the subdivision of the site providing employment opportunities and revenue as part of the Joint Venture agreement for development of the land. The proposal is consistent with the South Coast Regional Strategy which aims to provide in excess of 45,000 new dwellings over the next 25 years.

Given compliance with the Statement of Commitments, which include, but are not limited to, provision of water quality control ponds, provision of public open space for dedication to Shoalhaven City Council, payment of monetary contributions for public facilities and water and sewerage infrastructure, this project is recommended for approval.

**ENVIRONMENTAL ASSESSMENT REQUIREMENTS UNDER PART 3A  
OF THE ENVIRONMENTAL PLANNING AND ASSESSMENT ACT 1979**

**Proposed Residential Subdivision Development  
Lot 171 DP 1081810 Highview Drive, Dolphin Point**

| <i>Key Environmental Assessment Requirements</i>  | <i>Comment</i>   |
|---|--|
| <p><b><i>Statutory and Other Requirements</i></b></p> <p>All relevant legislation and planning provisions applying to the site; nature, extent and justification for any non-compliance. Where non-compliance results in environmental impacts, consideration of alternative/compensatory works to address the impacts. Clearly delineate proposed staging.</p>   | <p>Relevant statutory considerations are addressed in Section 5 of the EA. The proposal is consistent with all relevant policies including SEPP 71, Shoalhaven LEP 1985, Development Control Plan 100 Subdivision Code and Shoalhaven Planning Policy No 1, which guides the subdivision layout for the site.</p> <p>Staging of the proposal is outlined on the Subdivision Sketch Plan prepared by Allen Price and Associates Pty Ltd which forms <b>Annexure 1</b> of this EA.</p> |
| <p><b><i>Traffic Impacts (Construction and Operational)</i></b></p> <p>Demonstrate compliance with relevant Council and RTA traffic and car parking codes; prepare a detailed Traffic Impact Study in accordance with Table 2.1 of the <i>RTA Guide to Traffic Generating Developments</i> including intersection modelling of the access to the development. The aaSIDRA program must be used for the modelling and shall address: AM and PM peak volumes; holiday peak volumes; existing traffic volumes with and without development; 10 year projected volumes with and without the development; and identify suitable treatments to ameliorate any traffic inefficiency and safety impacts associated with the development, such as identification of pedestrian movements and appropriate treatments.</p> | <p>Traffic impacts are addressed in a Transport Report prepared by Colston Budd Hunt and Kafes (CBHK) which forms <b>Annexure 3</b>, and Section 6.2 of the EA.</p> <p>The report of CBHK has examined the impacts of the development including SIDRA analysis, consideration of AM and PM peaks, holiday peaks, 10 year projected increases, and the adequacy of the existing road network. The CBHK report considers both construction and operational impacts.</p>                |

| Key Environmental Assessment Requirements  | Comment  |
|--|--|
| <p><b>Urban Design, Visual Impact and Sustainability</b></p> <p>The concept plan for the development shall be prepared in collaboration with an adjoining proposed subdivision at Lot 1 DP 1045990, Princes Highway, Dolphin Point for a 130 lot residential subdivision (Stage 2 of a 5-stage development). Address <i>Coastal Design Guidelines for NSW, SEPP 71</i> and <i>SEPP 65</i> in particular: aesthetics; built form; energy and water efficiency; safer by design principles; relationship to surrounding areas; visual impacts from public locations; provisions of public precinct, open space and recreational areas; pedestrian and bicycle movement to, within and through the site; and public access to the coast. Visual aids such as scale model and photomontage must be used to demonstrate visual impacts. Amelioration of visual impacts through design, use of appropriate colours and building materials, landscaping and buffer areas must be addressed.</p> | <p>Urban Design, Visual Impact and Sustainability issues are addressed in Section 6.3 of the EA.</p> <p>The subdivision has been designed in order to connect with the subdivision of adjoining land to the west of the subject site regardless of the final layout adopted on that land.</p> <p>The Coastal Design Guidelines and SEPP 71 are addressed in Section 6.3.1, the provisions of SEPP 65 have no relevance to this proposal however are addressed in Section 6.3.2.</p> <p>Visual aids such as models and photomontages are not required in the consideration of this subdivision proposal, however visual impacts, including a suitable photographic analysis of relevant areas, are addressed in Section 6.3.</p> <p>Pedestrian and cycleways have been proposed in order to link allotments with key destination points in the locality and are shown on the Subdivision Sketch Plan prepared by Allen Price and Associates Pty Ltd which forms <b>Annexure 1</b> of this EA.</p> <p>Other mitigation measures are proposed in the form of Design Guidelines which form <b>Annexure 2</b> of the EA, and the use of appropriate darker colours for buildings where allotments adjoin the Barnunj State Conservation Area and retained public reserve.</p> |

| <b>Key Environmental Assessment Requirements</b>   | <b>Comment</b>   |
|--|--|
| <p><b>Bushfire</b></p> <p>Demonstrate compliance with the requirements of Section 100B of Rural Fires Act 1997, Section 79 BA of <i>Environmental Planning and Assessment Act 1979, Planning for Bush Fire Protection 2001</i> and Australian Standard 3959 – <i>Building in Bush Fire Prone Areas</i>. The assessment must address: development and maintenance of asset protection zones; setbacks to protect against bushfire hazards; fuel management control of fuel levels; provision of egress/access to the development and water supplies for bushfire suppression operations; increased bushfire risk from substantial revegetation and suitable construction method and materials to minimise vulnerability of buildings to ignition from radiation and ember. Address future management regimes for any areas of hazard remaining within the subject area, focussing on the level of hazard posed to future development and adjacent land and how the hazard may change as a result of development. The bushfire assessment should also be applied to the adjoining Barnung State Conservation Area.</p> | <p>Accompanying the application as <b>Annexure 5</b> is a Bushfire Protection Assessment (BPA) prepared by Bushfire and Environmental Services. This BPA was utilised in information contained within Section 6.4 of the EA.</p> <p>The BPA has addressed the provisions of Planning For Bushfire Protection, recommended required asset protection zones, setbacks, relevant construction standards for future dwellings, fuel management, and the suitability of road network.</p> <p>The assessment has considered the impact of the adjoining Barnun Conservation Area.</p> <p>The measures recommended by BES have been incorporated into the Subdivision Sketch Plan prepared by Allen Price and Associates Pty Ltd which forms <b>Annexure 1</b> of this EAR.</p> |
| <p><b>Drainage, Hydrological Regime and Flooding</b></p> <p>Address drainage issues in accordance with <i>Shoalhaven Planning Policy No. 1 Development Guidelines</i> – For Certain Residential 2 (c) zoned Land (Milton-Ulladulla). Consult Shoalhaven City Council to develop suitable Flood Planning Levels for the development. Address issues associated with changes in the hydrological regime of the catchment as a result of the development.</p>   | <p>Impacts on Drainage, Hydrology and Flooding are addressed in the Water Cycle Management Report prepared by Storm Consulting (<b>Annexure 6</b>) and Section 6.5 of the EA.</p> <p>The proposal is consistent with the provisions of SPP No. 1 having regard to the siting of drainage reserves and is addressed in <b>Annexure 6</b> and Section 6.5.</p> <p>Shoalhaven Council were consulted to determine relevant Flood Planning Level. The proposed development area is above Council's adopted level.</p> <p>Consideration of impacts is detailed in Section 6 of <b>Annexure 6</b>.</p>   |

| <b>Key Environmental Assessment Requirements</b>  | <b>Comment</b>  |
|---|---|
| <p><b>Impacts on Waterways and Estuary Management</b></p> <p>Demonstrate consistency with objectives of the <i>Rivers and Foreshores Improvements Act 1948</i>, <i>NSW State Rivers and Estuaries Policy</i>, <i>NSW Estuary Management Policy</i> and the <i>Burrill Lake Estuary and Catchment Management Plan</i>. To include provision of native vegetation riparian zones adjacent to watercourses or wetlands; develop management strategies and actions including the use of water sensitive urban design, implementing best practice erosion and sedimentation controls (including impacts on adjoining Barnung State Conservation Area), use of suitable stormwater management provisions to protect the Dolphin Point wetland and maintenance of vegetative buffers and sensitive habitats.</p> | <p>Impacts on Waterways and Estuary Management are addressed in the Water Cycle Management Report prepared by Storm Consulting (<b>Annexure 6</b>) and Section 6.6 of the EA.</p> <p>The Storm Report has recommended provision of stilling basins, bio-retention filters, constructed wetlands, rock-lined channels, rainwater tanks, gross-pollutant traps.</p> <p>The Subdivision Sketch Plan (<b>Annexure 1</b>) prepared by Allen Price and Associates Pty Ltd includes the provision of riparian corridors and water quality control ponds to maintain water quality.</p> |
| <p><b>Impacts on Water Quality, Supply and Sewerage</b></p> <p>Address potential impacts on quality of surface and groundwater; relevant <i>Statement of Joint Intent</i> established by the Health Rivers Commission; demonstrate an acceptable level of water quality protection. Demonstrate adequate water supply provision ensuring that the proposal integrates with Shoalhaven Council's Development Servicing Plan for Water Supply Services. Demonstrate the existing sewerage system's capability to support the development and integrate with Shoalhaven Council's Development Servicing Plan for Sewerage Services and taking into account Ulladulla Sewage Treatment System Environment Protection Licence (No. 446) and Licensing Guidelines for Sewage Treatment Systems (EPA, 2003).</p> | <p>Water Quality issues are addressed in Section 6.6 of the EA and the Storm Report which forms <b>Annexure 6</b>.</p> <p>The supply of sewerage services is detailed in Section 6.7.2 of the EA. Shoalhaven Water, the supply authority for the area, have been consulted (Section 4.3) and have advised that sewerage services will be available to the site. The response of Shoalhaven Water is included in <b>Annexure 9</b>.</p>  |

| <b>Key Environmental Assessment Requirements</b>  | <b>Comment</b>   |
|---|--|
| <p><b>Impacts on Threatened Species</b></p> <p>Address the indirect impacts of the development on threatened species and their habitats, in particular the presence of <i>Greillea barklana</i> and <i>Pseudanthus Divaricatissimus</i>, <i>Tesselated Spider Orchid</i>, <i>Leafless Tongue Orchid</i>, <i>Ground Parrot</i>, <i>Glossy Black Cockatoo</i>, <i>Eastern Pygmy-possum</i>, <i>Microchiropteran Bats</i>, <i>White-footed Dunnart</i>, and <i>Striated Fieldwren</i>.</p>   | <p>The impacts on threatened species were examined by Bushfire and Environmental Services (BES) in a report titled Flora and Fauna Assessment which forms <b>Annexure 4</b> to the EA. In addition, Section 6.8 of the EA deals with this matter. The report of BES has addressed those species which are likely to inhabit the site based on detailed assessment undertaken by BES.</p> <p>The recommendations of BES have resulted in a number of mitigation and offset measures which are outlined in Section 6.8, the Subdivision Sketch Plan prepared by Allen Price and Associates Pty Ltd and these are supported in the Statement of Commitments contained in Section 7.</p> |
| <p><b>Impacts on adjoining Barnung State Conservation Area</b></p> <p>Address management implications and impacts; boundary encroachments; visual impact.</p>   | <p>The potential impacts on the Barnunj State Conservation Area are specifically addressed in the Flora and Fauna Assessment undertaken by BES which forms <b>Annexure 4</b>. This is further considered in Section 6.9 of the EA. The recommendations of BES are contained within the Statement of Commitments and the Subdivision Sketch Plan (<b>Annexure 1</b>) prepared by Allen Price and Associates Pty Ltd which provides an appropriate edge to the SCA and connectivity to suitable habitat on the site.</p>   |
| <p><b>Aboriginal Cultural Heritage Vales</b></p> <p>Address and document information requirements set out in the draft <i>Guidelines for Aboriginal Cultural Heritage Impact Assessment and Community Consultation</i>, which involves surveys and consultation with Aboriginal community; identification of nature and extent of impacts on cultural heritage values; assessment of extent and significance of each site; formulation of actions to mitigate impacts on Aboriginal cultural heritage values in with the Aboriginal communities; and developing options and making recommendations.</p> | <p>Potential Impacts Aboriginal Cultural Heritage are examined in the report prepared by South-East Archaeology titled Aboriginal Heritage Assessment and Heritage Management Plan which forms <b>Annexure 7</b> of the EA, and are considered in Section 6.10.</p> <p>The SEA report was prepared in consultation with the Department of Environment and Climate Change and the local indigenous community.</p> <p>The SEA report recommended that aboriginal cultural heritage be addressed though appropriate management and a Heritage Management Plan has been prepared to address this.</p>  |

| <b><i>Key Environmental Assessment Requirements</i></b>   | <b><i>Comment</i></b>   |
|---|---|
| <p><b><i>General Environmental Risk Analysis</i></b></p> <p>Undertake an environmental risk analysis to identify potential environmental impacts associated with the project (construction and operation); proposed mitigation measures and potential significant residual environmental impacts after application of proposed mitigation measures.</p> | <p>Section 6.11 of the EA provides in a table format a general risk analysis which identifies the potential impacts and proposed mitigation measures.</p> |



## 1.0 INTRODUCTION

### 1.1 SITE INFORMATION AND SUMMARY OF DEVELOPMENT

|                             |  |
|-----------------------------|--|
| Applicant:                  | Allen Price and Associates   |
| Owner:                      | Ulladulla Local Aboriginal Land Council (ULALC)  |
| Developer:                  | Malbec Properties as joint venture partner with ULALC as approved under NSW Aboriginal Land Rights Act   |
| Legal Property Description: | Lot 171, D.P. 1081810  |
| Known Property Address:     | Highview Drive, Dolphin Point  |
| Area:                       | 16.39 ha   |
| Local Government Area:      | City of Shoalhaven   |
| Current Zone:               | Residential 2(c) and Environmental Protection Ecology 7(a) under SLEP 1985   |
| History of Zoning:          | Zoned Village under Shoalhaven IDO No. 1 since 1972  |
| Relevant Plans/Policies:    | Shoalhaven Planning Policy No 1 Development Guidelines <i>For Certain Residential 2(c) zoned land – Milton-Ulladulla</i> (SPP No. 1) adopted November 2004<br><br>Shoalhaven City Council - DCP 100 – Subdivision Code   |
| Description of Development: | Torrens Title residential subdivision comprising 142 residential allotments and 2 public/drainage reserves, including initial consent for the subdivision of the site into two superlots at the commencement of the project prior to any works being carried out |
| Permitted in Zone:          | Yes  |
| Consistent with SPP No. 1:  | Yes  |

## 1.2 THE PROPOSAL

The application proposes the subdivision of the property into 142 residential allotments to allow for the planned expansion of the Dolphin Point Village with the initial subdivision of the site into two superlots. The proposal includes the creation of an additional two allotments for ecological, public reserve and drainage purposes.

The proposed allotments range in size from 557 m<sup>2</sup> to 1296 m<sup>2</sup> (average lots size approximately 700 m<sup>2</sup>).

In addition, the proposal includes Design Guidelines which provides a series of requirements relating to the development of the proposed allotments to ensure an appropriate visual outcome is achieved.

The proposal incorporates the dedication of land to Shoalhaven City Council in accordance with the provisions of SPP No. 1 and Shoalhaven Contributions Plan 1993 for open space and drainage reserve purposes. Such lands are to be embellished in accordance with the recommendations of this report, and as required by Shoalhaven City Council.

The proposal includes a main collector road through the site to link with the current road network to the north-east of the site, and proposed new subdivision to the west. In addition, the proposal includes a perimeter road around vegetated lands.

The development is to be completed in a number of stages, commencing with the creation of two superlots which are not proposed to be serviced at the outset, with servicing being undertaken once further subdivision proceeds from stage 1 through to completion.

In an overall planning context, the current development proposal balances a number of imperatives of which the main ones are as follows:

- The subject parcel of land is an infill site. It has been zoned for residential release for over 30 years and is integral to the orderly and planned expansion of the Dolphin Point Village;
- The subject site is not a large site. Therefore, there is not a great deal of flexibility for the internal road layout. It is constrained by the:
  - fixed location of existing connecting roads;
  - neighbouring subdivision layout;

- the need for provision of a collector road through the site (including emergency access to/from 'the Dairy' site) as outlined in Council's Planning Policy structure plan which is critical to traffic management in the village;
- environmental considerations; and,
- bushfire constraints/controls.
- The question of long term sustainability of areas retained for conservation purposes on such a relatively small site. The resulting irregular and disjointed shape and high boundary to area ratio of these areas being in close proximity to existing urban areas being a major factor to the long term sustainability of the sites (particularly the small percentage of area that the potential habitat on this site constitutes in comparison to the adjoining conservation reserves of Meroo National Park and Barnunj SCA which total 3,731 ha in area);
- The proposal is consistent with the South Coast Regional Strategy which aims to provide in excess of 45,000 new dwellings over the next 25 years;
- The project will provide employment opportunities, particularly for the local indigenous community through joint development provided an appropriate scale of development and therefore economic viability is able to be achieved.

### **1.3 BACKGROUND TO PROJECT**

The subject site is currently owned by the Ulladulla Local Aboriginal Land Council (ULALC) following a successful claim, No 6691, under the NSW Aboriginal Lands Rights Act 1983. The land was subsequently transferred to the ULALC on 5<sup>th</sup> July 2005.

Prior to its ownership by the ULALC, the site was Crown Land, administered by the NSW Department of Lands.

It is understood that during the assessment of the Land Claim, consideration was also given by the NSW National Parks and Wildlife Service to the establishment of the Barnunj State Conservation Area and Meroo National Park. At that time, consideration was given to including the subject site into the parks conservation system however it is understood that this was not pursued as the property was considered to be less than ideal for conservation purposes due to its close proximity to existing residential development and high boundary to area ratio.

The current proposal is the result of a joint venture undertaken between the ULALC and Malbec Properties. Joint ventures are approved by the New South Wales Aboriginal Land Council (NSWALC) under Section 40D of the Aboriginal Land Rights Act 1983.

This process included a Public Tender process held independently by Heard McEwen Lawyers on behalf of the ULALC.

It must be noted that the joint venture is the first one endorsed by the NSWALC under the current legislative requirements. As well as dealing with financial implications of the development, the agreement also addressed other related benefits that would flow to the local Aboriginal community as a consequence of the development. These include:

- Formation of an Indigenous Building company that will employ a builder to train local indigenous people to obtain apprenticeships and building industry skills.
- TAFE training for members in carpentry, bricklaying, plumbing, electrical work, tiling and plastering.
- Construction of up to 22 houses and villas to provide lodging for members that require accommodation on other land owned by ULALC located in Ulladulla.
- The purchase and establishment of a community bus service to transport members to and from training, work, sporting events and social functions,
- investment in a term deposit in a local bank with interest to be used for the general operating and administration costs of the Ulladulla LALC; and,
- An education trust fund that is to be set up through contributions from the Developer for the benefit of the local indigenous community.

#### **1.4 PART 3A OF THE ENVIRONMENTAL PLANNING & ASSESSMENT ACT 1979**

The proposed development is a project within the terms of Part 3A of the Environmental Planning & Assessment Act 1979. In this regard, the subject site is located entirely within the coastal zone and the subdivision proposes in excess of 25 allotments, ultimately to be developed for residential purposes. Accordingly the provisions of Part 3A apply.

The Director-General has previously issued the Environmental Assessment Requirements dated January 2006, a copy of which are provided as **Annexure 8**.

## **2.0 DEVELOPMENT PROPOSAL AND JUSTIFICATION**

### **2.1 DEVELOPMENT PROPOSAL – PROJECT APPLICATION**

This application is seeking consent to the subdivision of the subject site into 142 residential lots, in a traditional Torrens Title scheme with an initial subdivision of the site into two superlots preceding development. Accompanying this application as **Annexure 1** is a subdivision sketch plan (Reference No. 24163-03) and services concept plan (Reference No. 24163-08) prepared by Allen Price & Associates which shows the following:

- a variety of lot sizes ranging in area from 557 m<sup>2</sup> to 1296 m<sup>2</sup> (average lot size of 700 m<sup>2</sup>);
- identified medium density allotment with an area of 1240 m<sup>2</sup>;
- the allotments have a predominant east-west or north-south orientation;
- provision of proposed drainage/public reserve with area of 1.596 ha immediately adjoining the Barnunj State Conservation Area;
- provision of proposed drainage/public reserve with area of 0.9 ha in the north-western corner of the site;
- pedestrian pathways and cycleways providing access through the site to link with surrounding lands;
- perimeter road skirting the southern boundary of the site and retained areas of natural vegetation;
- a subdivision layout providing a hierarchy of roads consistent with the provisions of SPP No. 1;
- water quality control ponds and other drainage infrastructure to manage stormwater prior to its discharge to the west and north-west of the site; and
- servicing by way of reticulated water and sewerage.

In addition, the following is proposed:-

- a requirement for on site detention for all proposed allotments to minimise downstream impacts.
- electricity and telephone are to be provided underground.
- site landscaping through the planting of street trees and works within the proposed public open space, and

- in addition to the physical features of the subdivision, it is intended to prepare separate Design Guidelines which will guide the built form on the lots to be created. A copy of the Design Guidelines is provided as **Annexure 2**.

The proposed subdivision has been designed to accommodate predominantly single dwellings, particularly where allotments are sited near established properties. In addition, a larger lot (1240 m<sup>2</sup>) is proposed to accommodate medium density development such as villa-homes.

## **2.2 EXPECTED POPULATION INCREASE**

This subdivision proposes the creation of an additional 142 residential allotments, plus a medium density parcel which could accommodate 3 to 4 medium density units. Consequently, a total of 146 dwelling could be expected. Shoalhaven City Council has produced a "Population Profile 2001", based on information contained in the Australian Bureau of Statistics 2001 census. This document places Dolphin Point in Area 5 Planning District, which covers the southern part of the Shoalhaven. In some circumstances, the profile provides specific information for Dolphin Point, whilst other information relates to Planning District 5. The following statistics are relevant to consider potential population expansion resulting from this subdivision:

- as at 2001, Dolphin Point had a population of 207 persons and experienced a growth rate of 1.7% between 1996 and 2001;
- Dolphin Point has an unoccupied dwelling rate of 43%, therefore permanent occupation is around 57%;
- the entire Shoalhaven has an unoccupied dwelling rate of 26.1%, therefore permanent occupation is around 74%;
- occupancy rates for Planning Area 5 are an average of 2.44 persons per dwelling.

It is also worth noting the population breakdown of the area and **Table 1** shows this information for Planning Area 5.

**Table 1**  
**Population Breakdown for Area 5 Planning District**

| Age     | Percentage of Overall Population |
|---------|----------------------------------|
| 0 - 4   | 5.7%                             |
| 5 - 12  | 11.7%                            |
| 13 - 17 | 6.9%                             |
| 18 - 24 | 4.4%                             |
| 25 - 39 | 15.0%                            |
| 40 - 54 | 20.5%                            |
| 55 - 64 | 13.4%                            |
| 65 - 74 | 13.3%                            |
| 75+     | 9.1%                             |

It is reasonable to make population projections based on the above profile. As outlined above, this proposal provides for a total of 146 dwellings. Assuming an occupied dwelling rate of 57%, as is currently the case for this locality, it is expected that approximately 83 dwellings (146 x 57%) will be permanently occupied. Given that this development will provide primarily for detached dwellings only, the 83 permanently occupied dwellings are likely to generate an additional population of 203 persons (83 x 2.44) when completed.

It is noted that the occupancy rate for Dolphin Point is less than that for the whole Shoalhaven, which averages 73.9%. In the event that an occupancy rate of 73.9% is attained, then 108 dwellings would be permanently occupied (146 x 73.9%), which would result in a total additional population of 263 persons. That is, an additional 60 persons beyond that predicted utilising Area 5 occupancy statistics.

As the subdivision is proposed to be developed in stages, it is anticipated that this increase in permanent population will occur over a 7 to 10 year period. The consequences of this would result in approximately 20-30 additional persons per year. Whilst this is significant in a local context, it must be noted that the locality has been identified under SPP No. 1 for the expansion of residential development to service the entire Milton/Ulladulla district, and on this basis, the growth is considered reasonable. In this regard, it is noted that the total population for urban settlements in Area 5 as at 2001 was 11734 persons.

In addition to an anticipated overall population growth of 203 persons **Table 2** below shows the projected additional population, divided into the various age categories assuming current age distribution rates for Area 5 as contained in **Table 1** above.

**Table 2**  
**Projected Additional Permanent Population**

| <b>Age</b>   | <b>No. of Additional Persons</b> |
|--------------|----------------------------------|
| 0-4          | 12                               |
| 5-12         | 24                               |
| 13-17        | 14                               |
| 18-24        | 9                                |
| 25-39        | 30                               |
| 40-54        | 42                               |
| 55-64        | 27                               |
| 65-74        | 27                               |
| 75+          | 18                               |
| <b>TOTAL</b> | <b>203</b>                       |

### **2.3 STAGING**

The development will be completed in stages, contingent on the buoyancy of the residential market and take up rates. Accompanying the subdivision sketch plan in **Annexure 1** is the indicative stages which show the development of 6 stages, each accommodating between 22-27 allotments. It is anticipated that development will take approximately 10 years to fully develop.

As part of the staging of the project, consent is requested for the creation of two superlots at the outset of the project preceding development, the first superlot encompassing all the lots shown in Stage 1 within the staging plan, with the second superlot comprising the balance of the site. This initial subdivision into two superlots is intended to occur prior to any works being carried out, and is required to satisfy the structure of the Joint Venture agreement with the ULALC.

Dedication of the public reserves and drainage infrastructure will occur at various stages throughout the construction of the subdivision as it is not practical, nor desirable, to dedicate all areas up front. Despite this, all essential drainage infrastructure will be in place when required to serve upstream properties, whilst public reserves will be provided incrementally commensurate with growth in the subdivision.

It is usual practice for Council to consider the dedication of relevant lands which are proposed for public purposes, including roads, public reserves and drainage reserves in the assessment of applications. In this regard, discussions have been held with staff of

Shoalhaven Council whereby the intention to dedicate certain lands and infrastructure to the Council were outlined. This is further discussed in Section 4.2.

The staging is mindful of the need to provide relevant services for residential development along with appropriate maintenance of Asset Protection Zones in order to mitigate bushfire risk and allow reasonable residential development of lots upon their release.

## **2.4 JUSTIFICATION**

Justification for this development is provided as:

- The site has been identified by Shoalhaven City Council as one suitable for residential development by zoning it predominantly Residential 2(c) Living Area in Shoalhaven Local Environmental Plan (Amendment No 195 which was gazetted on 13 June 2003). The proposal is consistent with the requirements of SLEP.
- The site has been identified for residential development for in excess of 30 years, being first zoned for village purposes under Interim Development Order No. 1.
- Shoalhaven City Council have provided controls for the residential development of the site in Shoalhaven Planning Policy No. 1 (SPP No. 1), adopted by Council in November 2004. The proposal is generally consistent with the requirements outlined in SPP No 1.
- The project is one approved and supported by the NSW Aboriginal Land Council.
- The site is well located, being close to the coast in an area experiencing high amenity, accessible to the commercial facilities of Burrill Lake, and within relatively close proximity to the Ulladulla township where a wider range of services and employment opportunities are available.
- State and Local Government have already invested in considerable infrastructure in the locality which is necessary for residential development, and the use of the subject site for residential development will maximise the return on this investment. This infrastructure is in the form of provision of sealed roads, reticulated water and sewerage services, power, telephone and community facilities.
- The Shoalhaven Local Government Area has limited land available for residential purposes and it is appropriate that lands that are currently zoned for this purpose are properly developed at appropriate densities to provide land for orderly residential development.

- The development of additional land for residential purposes will lead to a greater supply of residential land, which will assist in ensuring that real estate prices are not artificially inflated by land shortages.
- The development of the site for residential purposes will provide appropriate asset protection and bushfire mitigation along the western edge of the existing village, and allow for its ongoing management in an appropriate manner.
- Although close to the coast, the site is not prominent from the actual coastline and visual impacts can be properly mitigated.
- It will provide for the implementation of Council's plans for the locality, including LEP and relevant Section 94 projects, achieving growth targets and residential strategies.
- Increased economic opportunities for the region with increased employment in the building and allied industries, and increased demand for building materials, landscaping supplies and white goods.
- The proposal is in the public interest, and
- the development can be undertaken in a fashion that properly balances the relevant ecological and environmental constraints applying to the site.

## **2.5 CONSEQUENCES OF NOT DEVELOPING**

In the event that this development is not undertaken, it is likely that this will lead to a valuable community resource remaining idle, leading to a reduced supply of residential land. The effects of this would see further increases in the value of residential land and reduced housing affordability in the locality.

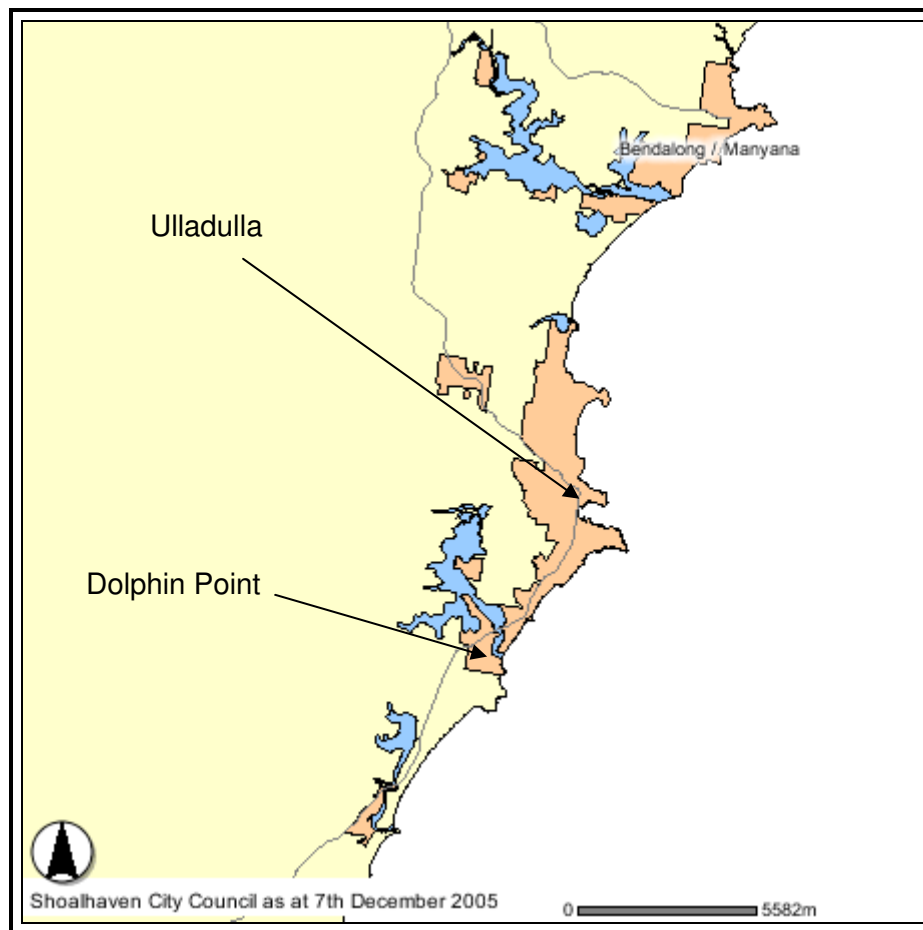
The land remaining undeveloped would be contrary to the established policies of Shoalhaven City Council, as espoused in Shoalhaven Local Environmental Plan 1985 and SPP No. 1 which has provided for the development of the site and further guides the layout of development. It will also be contrary to the policies of the NSW State Government having regard to the South Coast Regional Strategy which has established growth targets of 45,600 new dwellings by 2031.

In addition, the full benefit of investment already undertaken to provide significant infrastructure in the locality, including reticulated water, the sewerage system, telephone and power, will not be properly realised.

Finally, if the development does not proceed the local Aboriginal community will have lost an opportunity to realise an asset which will contribute significantly to the long-term well-being of the indigenous community.

### 3.0 SITE ANALYSIS

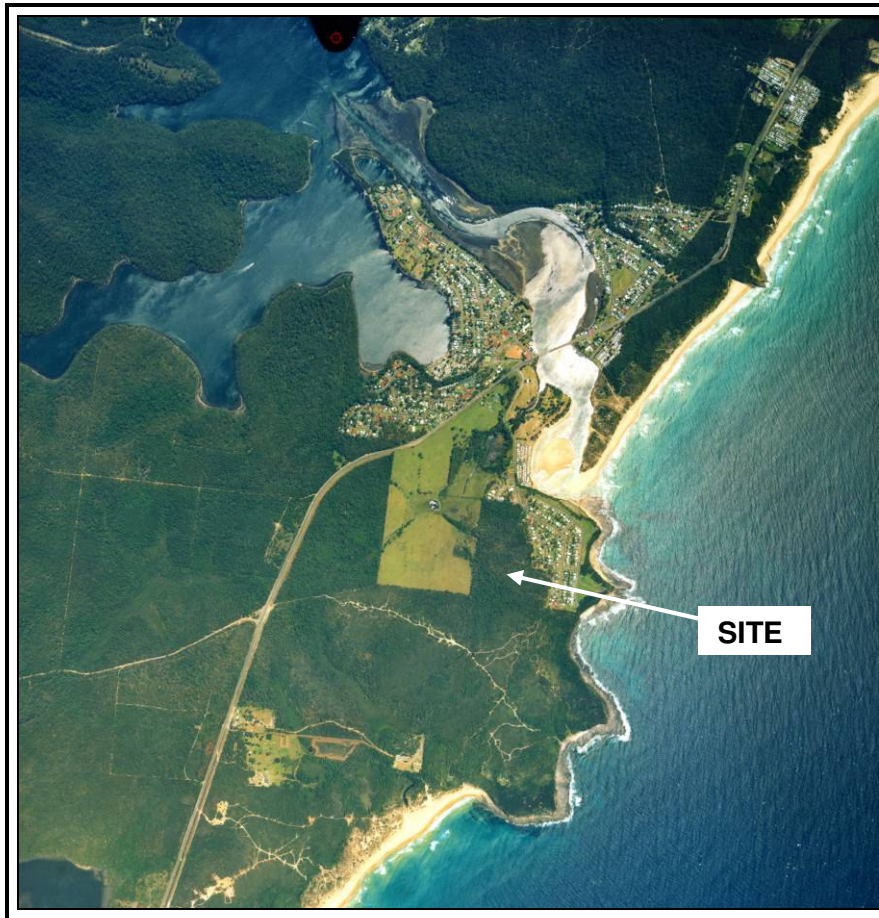
The subject site is located at Dolphin Point on the south coast of NSW in the City of Shoalhaven, some 5 kilometres south of Ulladulla on the Princes Highway. Dolphin Point is sited at the inlet of Lake Burrill, and is bordered generally by Lake Burrill itself to the north, the Pacific Ocean to the east, the Princes Highway to the west and the Barnunj State Conservation Area to the south. For the purposes of this report, Burrill Lake is a reference to the urban/developed area, whilst Lake Burrill is a reference to the natural waterbody. **Figure 1** shows the location of the subject site within the district.



**Figure 1: Locality plan (extract from SCC GIS).**

**Annexure 1** includes a Locality Context Plan that outlines the main local features in the vicinity of the development. The constraints and opportunities afforded by the local features are outlined below. Existing development at Dolphin Point consists of predominantly single detached housing, along with a caravan park. Although principally single housing predominates, a variety of forms are present, from modest weekender type accommodation with simple design finished in light weight materials, through to more substantial two storey dwellings, particularly closer to the actual coast.

**Figure 2** shows an aerial view around the villages of Dolphin Point and Burrill Lake.



**Figure 2: Aerial photo of Dolphin Point and Burrill Lake.**

The Locality Context Plan contained within **Annexure 1** shows the site in relation to various local and district facilities.

Dolphin Point is currently well planned given the village is edged by public roads and public reserves giving good public access to the ocean and other foreshore areas. The village is relatively permeable for pedestrians giving reasonably good access to the southern foreshores of Lake Burrill and the headland at Dolphin Point. This is attributable to the street layout, the relatively small size of the village and limited number of streets, and the large extent of public reserve which is available in a variety of locations, but most particularly on the foreshore areas.

To the north of the Inlet to Lake Burrill is Burrill Beach (see **Plate 1**), whilst to the south, a rock platform provides the interface with the ocean (see **Plate 2**), with a relatively low rise of some 10 metres up to where existing residential development is contained (see **Plate 3**).

Commercial facilities for the locality are provided at Burrill Lake on both sides of the Princes Highway. **Plate 4** shows the commercial precinct servicing Dolphin Point. Facilities

include a post office/convenience store, café, hairdressers, restaurant, take away bottle shop, and take away food. The township of Ulladulla provides greater variety of retail and commercial opportunities.



**Plate 1: View to north from Dolphin Point.**



**Plate 2: Rock platform south of Lake Burrill entrance.**



**Plate 3: View towards Dolphin Point from rock platform.**



**Plate 4: View of neighbourhood commercial precinct.**

The subject site itself is located to the east of the Princes Highway, adjoining the existing village on its eastern and northern boundaries. **Figure 3** is an aerial photo depicting the immediate locality in greater detail.



**Figure 3 – Aerial photo of site and surrounds.**

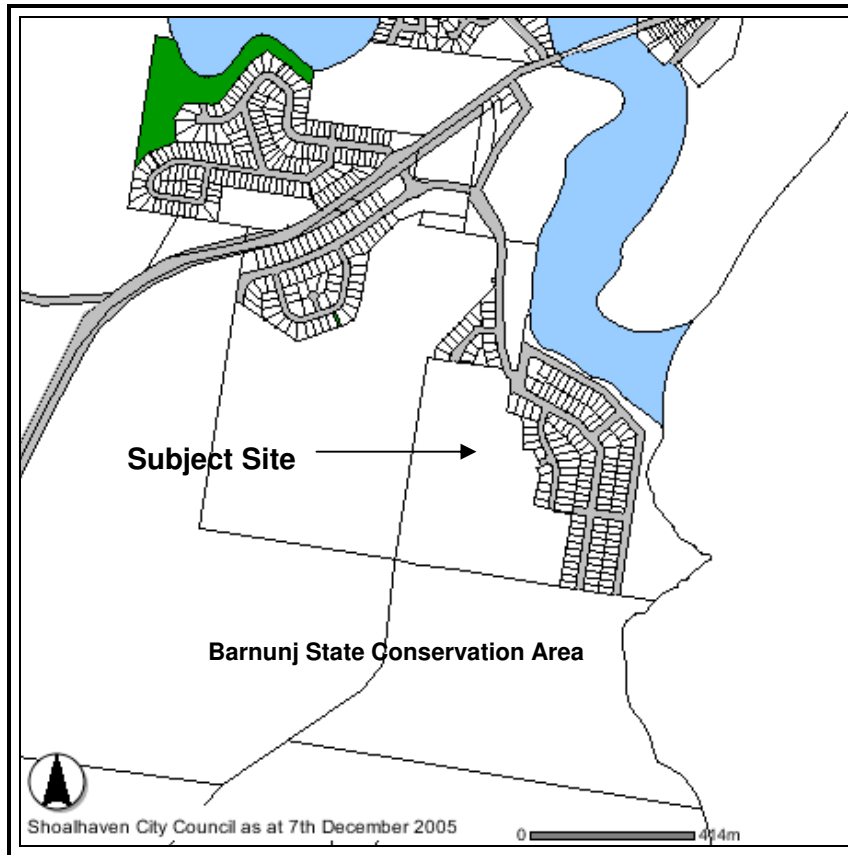
**Figure 4** shows the cadastral boundaries which demonstrates that the site adjoins:

- the existing Dolphin Point Village to the north and east;
- the Barnunj State Conservation Area (SCA) to the south; and
- other lands zoned to allow for residential development to the west.

The other lands to the west are the subject of a Major Project Application (Reference No. 05\_0016) which is currently being assessed by the Department of Planning (DoP).

The subject property is considered to constitute an in-fill site due its location surrounded by existing residential development, or other cleared lands zoned and proposed for residential use which is clearly demonstrated in the Locality Context Plan.

The main site features affecting the proposed development (including natural features, existing road patterns, adjoining development and the like.) are shown in the Site Analysis Plan prepared by Allen Price and Associates Pty Ltd included in **Annexure 1** to the report. A more detailed discussion on the features affecting the proposal and their incorporation into the layout is outlined below.



**Figure 4: Cadastral Plan - Location of subject site and surrounds.**

The subject site has an area of 16.39 hectares, is irregular in shape, and is currently vacant. Although irregular in shape, the property is rectangular along its western and southern boundaries, and some of its northern and eastern boundaries. These eastern and northern boundaries are less regular where adjoining existing allotments. A copy of the deposited plan of the allotment is included in **Annexure 1**.

The site adjoins a number of existing constructed roadways that provide connectivity to the established public road network within Dolphin Point via Bonnie Troon Close (see **Plate 5**), Vista Drive (see **Plate 6**), Highview Drive/Dolphin Point Road (see **Plate 7**), and an un-named road reserve (**Plate 8**) as is shown on the Site Analysis Plan.

The site is at its highest at the south-eastern corner (RL 33 m AHD), sloping down to the north-western corner of the property where it has a height of RL 1 m AHD. The site has a generally consistent fall of approximately 32 m from its highest to lowest point. According to the Water Cycle Management Report prepared by Storm Consulting (**Annexure 6**), the site has a slope of approximately 7 - 9%. The site has two distinct drainage paths in the south-west and north-west corners of the property. These converge outside the site and ultimately drain via low-lying lands to Lake Burrill.



**Plate 5: View of existing residences within Bonnie Troon Close.**



**Plate 6: View of site from end of Vista Drive.**



**Plate 7: View of proposed entry with Highview Drive.**



**Plate 8: View of site from un-named road reserve.**

The site contains native vegetation however this has been substantially disturbed by recent bush fire events and perimeter clearing, particularly along the common boundaries with established residential allotments. According to the report prepared by Bushfire and Environmental Services which is included as **Annexure 4** to this EA, the site contains five native vegetation communities as follows:

- Bangalay Swamp Forest.
- Stringybark-Bangalay Dry Open Forest/Woodland.
- Scribbly Gum-Bloodwood Woodland.
- Red Bloodwood Shrubland, and
- Bangalay Tea-tree Ecotonal Open Forest.

## **4.0 CONSULTATION**

Initial consultation was undertaken prior to seeking formal declaration by the DoP under Clause 6 of the Major Projects SEPP and formulating the Director General's Environmental Assessment Requirements.

Since receiving the Director General Environmental Assessment Requirements, consultation has been had with the relevant agencies on an 'as needs' basis. The following outlines the detailed consultation that has been undertaken with agencies where it has been deemed necessary.

### **4.1 DEPARTMENT OF ENVIRONMENT AND CONSERVATION**

#### **4.1.1 Threatened Species**

Following the completion of the initial assessment and identification of the relevant flora and fauna constraints, a series of meetings and discussions have been held with the then Department of Environment and Conservation (DEC) to discuss the threatened flora and fauna issues relevant to this proposal. The following details the meetings, discussions and correspondence with our project team and DEC.

- Meeting in Queanbeyan on 11<sup>th</sup> May 2006 with DEC and ecological consultants, Bushfire and Environmental Services (BES) to discuss findings of fieldwork and possible offsets.
- Meeting in Nowra on 13 June 2006 with DEC and BES to review fieldwork in detail, proposed offsets. Due to the recent introduction of the Part 3A legislation and offsets, it was agreed that DEC would further consider the proposal and provide further comment.
- Telephone conference call with DEC and project team on 6<sup>th</sup> July 2006 to consider facsimile from DEC which identified their preferred exclusion zones. It was agreed that DEC would consider a written submission that outlined the fieldwork, consideration of flora and fauna matters for their further consideration.
- Written correspondence was provided to DEC by BES on 10<sup>th</sup> August 2006, a copy of which is included in the Flora and Fauna Assessment which appears as **Annexure 4** to this EA.
- DEC correspondence dated 6<sup>th</sup> September 2006 and a copy of their response is also included in the BES Flora and Fauna Assessment which appears as **Annexure 4**.

Review of the threatened flora and fauna issues are discussed in Section 6.8 of this EA.

#### **4.1.2 Aboriginal Cultural Heritage Values**

Consideration of Aboriginal Cultural Heritage Values was undertaken by South East Archaeology (SEA). Consultation with DEC undertaken by SEA in relation to the project included:

- Meeting with relevant staff to determine process of assessment and consultation necessary to consider proposal. This meeting confirmed that:
  - No test excavation will be required within the LALC land subject to obtaining suitable data from other nearby developers;
  - The new DEC Aboriginal consultation process will not need to be implemented;
  - The Statement of Commitments will need to incorporate mitigation measures and include an Aboriginal Heritage Management Plan which will incorporate the full details of the proposed mitigation;

The work undertaken by SEA has been considerate of the consultation undertaken with DEC.

#### **4.2 SHOALHAVEN CITY COUNCIL**

Various staff of Shoalhaven City Council have been informed of the project throughout its design as follows:

- meeting with Council's Subdivision Planner prior to seeking Clause 6 declaration of Major Project Status;
- consideration of Preliminary Assessment and inclusion of its requirements in the Director General's Environmental Assessment Requirements;
- meeting with various Council Officers on 25th July 2006 to discuss relevant environmental constraints and the proposed subdivision layout;
- meeting with Council's Subdivision Manager on 19<sup>th</sup> September 2006 to discuss management of public/drainage reserves. At this meeting, Council's Subdivision Manager acknowledged that the proposed public and drainage reserves were generally consistent with the provisions of SPP No. 1, which has established the Council policy for the provision of such facilities on the site; and
- meeting with Council's Director of Development and Environmental Services, Subdivisions Manager and Senior Strategic Planner – Contributions, on 31<sup>st</sup> May 2007 to discuss the final allotment layout.

The proposal is consistent with the provisions of SPP No 1 which, amongst a number of requirements, details the siting of drainage reserves. The Subdivision Sketch Plan prepared by Allen Price and Associates Pty Ltd has included a drainage reserve entirely consistent with that area identified in SPP No. 1.

#### **4.3 SHOALHAVEN WATER**

Shoalhaven Water is the supply authority for water and sewer services within the Shoalhaven LGA. Shoalhaven Water was written to in relation to the ability to service the subject site, and their response is produced in **Annexure 9**. To summarise, Shoalhaven Water have advised as follows:

*“... with respect to water supply, a water main extension as set out in the Water Supply Development Servicing Plan (DSP) (Nov 2005) will be required to support this proposed 170 lot subdivision development. The water supply works involves the construction of 100 Ø main x approximately 500 m. This works is programmed for in 2011/12.*

*With respect to sewerage services to the area the Sewerage Services DSP outlines the provision of a new sewage pumping station (SPS) D2 plus rising main is required to support this proposed 170 lot development, existing and other future developments. SPS D2 is programmed for construction in 2006/07 and to be in operation in 2007/08. Alternative to a new SPS, is for a new gravity line from SPS D2 to the new SPS B4 (proposed to be relocated to the eastern side of the Princes Hwy).”*

#### **4.4 LOCAL COMMUNITY**

Shoalhaven City Council officially acknowledges Community Consultative Bodies which are formally notified of applications and other relevant information relating to Council's affairs. In relation to Dolphin Point, the Dolphin Point Residents Action Group (DPRAG) is the formal group that is identified, and a meeting with DPRAG was arranged through the Secretary of this Association.

Members of the Project Team met with DPRAG on the 1<sup>st</sup> November 2006, and following this written comment was provided by its Secretary dated 28<sup>th</sup> November 2006. A copy of this correspondence is provided as **Annexure 10**. Concerns from the community with this proposal can be summarised as follows:

- Minimise total lot numbers.

Comment – the development proposes a reasonable number of lots based on the constraints of the site and the goals of sustainable development. The proposal does not seek to create the maximum number of lots allowable under DCP 100 or SPP No. 1.

- Subdivision should provide a wildlife corridor connecting the Barnunj SCA with the wetlands to the north.

Comment – the subdivision layout provides a corridor to connect the Barnunj SCA with the wetlands to the north of the site. This is further addressed in the report prepared by BES (**Annexure 4**) and Section 6.8 of this EA.

- Development should protect marine ecology.

Comment – the proposal includes a series of water quality control measures in order that water quality is maintained. This is further addressed in the report titled Water Cycle Management prepared by Storm and Section 6.6 of this EA.

- Subdivision should provide multiple parklands and open space areas separate to the wetlands.

Comment – the layout includes a series of parks, reserves and open space areas in accordance with the requirements outlined in SPP No. 1. It is considered that these provide a good variety of open space opportunities, combining more formalised parks and play space, with areas having more natural qualities including native vegetation and drainage corridors.

- Applicant should contribute under Section 94.

Comment – Shoalhaven City Council has a Section 94 Contributions Plan for the locality which requires contribution towards a variety of community and recreation projects. The applicant is committed to the payment of contributions under the provision of this Plan and this is outlined in Section 7.

- Design should include wide roads and footpaths should be provided.

Comment – the subdivision design includes the provision of roads that comply with the requirements of DCP 100 – Subdivision Code and SPP No. 1. It is noted however that the main collector road is of a width that exceeds the minimum requirements. In addition, footpath locations have been identified which will provide access to and around the site, linking not only the subject property with desired destination points, but improving pedestrian and cycle movements for adjoining lands.

- Development should provide bushfire protection buffer zones;

Comment – the proposal is considerate of the requirements of Planning for Bushfire Protection and has included the provision of asset protection zones as necessary. This is further addressed in the separate Bushfire Risk Assessment Report prepared by BES (**Annexure 5**) and Section 6. 4 of this EA.

- Proposal should comply with SPP No. 1, DCP 100 and DCP 52.

Comment – the proposal is generally consistent with the requirements of SPP No. 1 and DCP 100 – Subdivision Code. This is further addressed in Section 5.6.1 of this EA.

In relation to DCP 52, investigations with staff of Shoalhaven City Council have revealed that this DCP was never formally adopted by Council, and whilst it was prepared to apply to certain lands at Dolphin Point and Burrill Lake, it did not include the subject site. It is likely that this policy was superseded by the provisions of SPP No. 1 which have been addressed in this EA.

#### **4.5 ABORIGINAL COMMUNITY**

In preparing the Aboriginal Heritage Impact Assessment, South East Archaeology undertook consultation with the Aboriginal community by way of direct consultation with the Ulladulla LALC, which included participation in field surveys, provision of the initial report for comments, and provision of the present report for their comment.

#### **4.6 DEVELOPERS OF ADJOINING LAND**

Land to the north-west of the subject site is currently the subject of a Major Project application Reference No. 05\_0016) currently with the DoP. Consultation was had with the Turnbull Group who are representatives of the owners of this land, including providing copies of draft layouts through the evolution of the design. A copy of the final plan was provided on 17<sup>th</sup> May 2007. No response had been received prior to the completion of this EA.

## 5.0 STATUTORY FRAMEWORK

The following section considers the various statutory matters requiring consideration in the assessment of this proposal.

### 5.1 COMMONWEALTH LEGISLATION

#### 5.1.1 Environment Protection & Biodiversity Conservation Act

The Commonwealth *Environmental Protection and Biodiversity Conservation Act 1999* (EPBC Act) specifies that approval is required from the Commonwealth Minister for the Environment for actions that have, will have or are likely to have a significant impact on a matter of “*national environmental significance*”, including:

- (i) declared World Heritage Areas;
- (ii) declared RAMSAR wetlands;
- (iii) listed threatened species and ecological communities;
- (iv) listed migratory species;
- (v) nuclear actions; and
- (vi) the environment of Commonwealth marine areas.

Actions on or outside Commonwealth land that have, will have or are likely to have a significant impact on the environment on or outside Commonwealth land must also be referred to the Commonwealth Minister for assessment and approval.

The Department of Environment and Heritage (2005) has published guidelines to assist in determining whether an action will have or is likely to have a significant impact on a matter of national environmental significance and, hence, whether a referral should be submitted to the Department for a decision by the Minister on whether assessment and approval is required under the EPBC Act.

The Guidelines state that, to make a decision as to whether or not to refer an action to the Minister, you should consider the following questions:

1. *Are there matters of national environmental significance located in the area of the proposed action?*
2. *Considering the proposed action at its broadest scope, is there potential for impacts on matters of national environmental significance?*
3. *Are there any proposed measures to avoid or reduce impacts on matters of national environmental significance?*
4. *Are any impacts of the proposed action on matters of national environmental significance likely to be significant impacts?*

The Guidelines provide the following important definitions:

"A *significant impact* is an impact which is important, notable, or of consequence, having regard to its context or intensity. Whether or not an action is likely to have a significant impact depends upon the sensitivity, value, and quality of the environment which is impacted, and upon the intensity, duration, magnitude and geographic extent of the impacts. You should consider all of these factors when determining whether an action is likely to have a significant impact on matters of national environmental significance."

"To be *likely*, it is not necessary for a significant impact to have a greater than 50% chance of happening, it is sufficient if a significant impact on a matter of national environmental significance is a real or not remote chance or possibility."

"*Population*, in relation to critically endangered, endangered or vulnerable, threatened species, means:

- a geographically distinct regional population, or collection of local populations; or
- a regional population, or collection of local populations occurring within a particular bioregion."

"An *important population* is a population that is necessary for a species' long-term survival and recovery. This may include populations that are:

- key source populations either for breeding or dispersal;
- populations that are necessary for maintaining genetic diversity; and/or
- populations that are near the limit of the species' range.

"*Habitat critical to the survival of a species* refers to:

- habitat identified in a recovery plan for the species as habitat critical for those species or communities; and/or
- habitat listed on the Register of Critical Habitat maintained by the Minister under the Act; and/or
- areas that are necessary:
  - for activities such as foraging, breeding, roosting, or dispersal,
  - for succession,
  - to maintain genetic diversity and long term evolutionary development, or
  - for the reintroduction of populations or recovery of the species."

Accompanying the application as **Annexure 4** to the EA is a Flora and Fauna Assessment undertaken by BES which has considered the requirements of the EPBC Act and has concluded that

*“Following consideration of the Significant Impact Guidelines for determining significance for matters of national environmental significance in the study area, it is concluded that the proposal is unlikely to have a significant impact on any matter of national environmental significance, and that a referral to the Commonwealth Environmental Minister is not required.”*

## **5.2 STATE LEGISLATION/POLICIES**

### **5.2.1 State Significant Development - Part 3A Environmental Planning & Assessment Act and State Environmental Planning Policy – Major Projects**

The introduction of Part 3A to the Environmental Planning & Assessment Act 1979, and the introduction of *State Environmental Planning Policy (Major Projects)*, brought about a change in the regime concerning the assessment of state significant development. Pursuant to Section 75B of the Act, development subject to the provisions of Part 3A of the Act includes development referred to within a State Environmental Planning Policy. The Minister for Planning is the consent authority for such development.

*State Environmental Planning Policy (Major Projects)* supports the introduction of Part 3A to the Act. Schedules 1 and 2 of this SEPP outline those developments that are subject to the provisions of Part 3A of the Act.

Schedule 1 of SEPP (Major Projects) outlines classes of development that, in the opinion of the Minister, are declared to be projects to which Part 3A of the Act apply.

Schedule 2 of SEPP (Major Projects) also outlines those classes situated within the coastal zone that are also deemed to be state significant development.

The project is affected by the provisions of the Major Projects SEPP due to the location of the site within the Coastal Zone, and the nature of the application, being the subdivision of land into more than 25 allotments. In this regard, the Director-General of the DoP formed the opinion on 8 November 2005 that the provision of Part 3A of the Environmental Planning and Assessment Act would apply, and the relevant DG EARs were issued in January 2006.

In relation to this Project, the SEPP aims to identify development to which the development assessment and approval process under Part 3A of the Act applies, and to facilitate the development, redevelopment or protection of important urban, coastal and regional sites of economic, environmental or social significance to the State so as to facilitate the orderly use, development or conservation of those State significant sites for the benefit of the State.

### 5.2.2 Threatened Species Conservation Act

The New South Wales *Environmental Planning and Assessment Act 1979*, as amended by the *Threatened Species Conservation Act 1995* and *Threatened Species Conservation Amendment Act 2002*, requires that various factors be taken into account in deciding whether a proposed action, development or activity is likely to have a significant effect on threatened species, populations or communities, or their habitats and, hence, whether the preparation of a Species Impact Statement (SIS) is warranted.

The TSC Amendment Act also specifies that any assessment guidelines issued by the Minister for the Environment be taken into account when making an assessment of significance. The Department of Environment and Conservation published the guidelines in August 2005. Referred to as the *Assessment of Significance Guidelines*, they clarify technical terms and assist in the interpretation and application of the various factors.

The Guidelines state that:

*"the revised factors maintain the same intent [as the Eight Part Test] but focus consideration of the likely impacts in the context of the local rather than the regional environment as the long-term loss of biodiversity at all levels arises primarily from the accumulation of losses and depletions of populations at a local level. This is the broad principle underpinning the TSC Act, State and Federal biodiversity strategies and national agreements. The consideration of impacts at a local level is designed to make it easier for local government to assess, and easier for applicants and consultants to undertake the Assessment of Significance because there is no longer a need to research regional and statewide information in considering potential impacts. Further consideration is required when a significant effect is likely and is more appropriately considered when preparing a Species Impact Statement."*

*"When applying each factor, consideration must be given to all of the likely direct and indirect impacts of the proposal. Direct impacts are those that directly affect habitat and individuals and include but are not limited to acute death through predation, trampling, poisoning of the animal/plant itself and removal of suitable habitat. Indirect impacts occur when project-related activities affect resources in a manner other than a direct loss of the resource. A broad range of impacts need to be considered, for example, killing of species through starvation, exposure, predation, by domestic and/or feral animals, loss of breeding opportunities, loss of shade/shelter, deleterious changes in the water table, increased soil salinity, promotion of erosion, inhibition of nitrogen fixation, provision of suitable seed bed for exotic weed invasion, fertiliser drift, or increased human activity within or directly adjacent to sensitive habitat areas."*

*"Mitigating, ameliorative or compensatory measures propose as part of the action, development or activity should not be considered in determining the degree of effect on threatened species, populations, or ecological*

*communities, unless the measure has been proven successful for that species in a similar situation."*

*"In determining the nature and magnitude of an impact, it is important to consider matters such as:*

- *Pre-construction, construction and occupation/maintenance phases.*
- *All on-site and off-site impacts, including location, installation, operation and maintenance of auxiliary infrastructure and fire management zones.*
- *All direct and indirect impacts.*

- *The frequency and duration of each known or likely impact/action.*
- *The total impact which can be attributed to that action over the entire geographic area affected, and over time.*
- *The sensitivity of the receiving environment, and*
- *The degree of confidence with which the impacts of the action are known and understood."*

*"Application of the precautionary principle requires that a lack of scientific certainty about the potential impacts of an action does not in itself justify a decision that the action is not likely to have a significant impact. If the information is not available to conclusively determine that there will not be a significant impact on the threatened species, population or ecological community, or its habitat then it should be assumed that a significant impact is likely."*

The factors to be considered are as follows:

- (a) *in the case of a threatened species, whether the action proposed is likely to have an adverse effect on the life cycle of the species such that a viable local population of the species is likely to be placed at risk of extinction;*
- (b) *in the case of an endangered population, whether the action proposed is likely to have an adverse effect on the life cycle of the species that constitutes the endangered population such that a viable local population of the species is likely to be placed at risk of extinction;*
- (c) *in the case of an endangered ecological community or critically endangered ecological community, whether the action proposed;*
  - (i) *is likely to have an adverse effect on the extent of the ecological community such that its local occurrence is likely to be placed at risk of extinction;*
  - (ii) *is likely to substantially and adversely modify the composition of the ecological community such that its occurrence is likely to be placed at risk of extinction;*
- (d) *in relation to the habitat of a threatened species, population or ecological community;*

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- (i) *the extent to which habitat is likely to be removed or modified as a result of the action proposed;*
- (ii) *whether an area of habitat is likely to become fragmented or isolated from other areas of habitat as a result of the proposed action;*
- (iii) *the importance of the habitat to be removed, modified, fragmented or isolated to the long-term survival of the species, population or ecological community in the locality;*
- (e) *whether the action proposed is likely to have an adverse effect on critical habitat (either directly or indirectly);*
- (f) *whether the action proposed is consistent with the objectives or actions of a recovery plan or threat abatement plan;*
- (g) *whether the action proposed constitutes or is part of a key threatening process or is likely to result in the operation of, or increase the impact of, a key threatening process.”*

Accompanying the application as **Annexure 4** to the EA is a Flora and Fauna Assessment prepared by BES which has considered the requirements of the TSC Amendment Act and has concluded that:

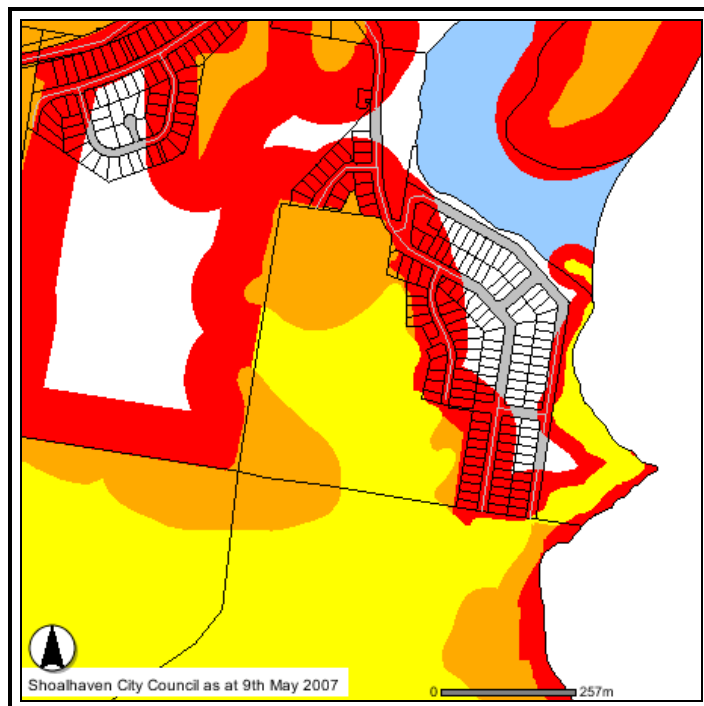
- a) *The proposal includes actions to avoid and mitigate impacts on Swamp sclerophyll forest that will maintain or improve the biodiversity values of this endangered ecological community. The hydrologic and vegetation management practices to be implemented for the proposal along with the design of roads will provide appropriate long-term protection for the Swamp sclerophyll forest.*
- b) *The proposal includes actions to offset impacts on the Leafless Tongue Orchid and White-footed Dunnart that will maintain or improve the biodiversity values of these threatened species.*
- c) *The proposal is unlikely to reduce the long-term viability of a local population of the Glossy Black-cockatoo, Osprey, Eastern Freetail Bat or Large-footed Myotis.*
- d) *The proposal is unlikely to accelerate the extinction of the Leafless Tongue Orchid, Glossy Black-cockatoo, Osprey, Eastern Freetail Bat, Large-footed Myotis, White-footed Dunnart and Swamp sclerophyll forest. Impacts on the Leafless Tongue Orchid and White-footed Dunnart have been offset with off-site local area proposals. No breeding habitat for the Glossy Black-cockatoo, Osprey or Large-footed Myotis was recorded in the study area. The potential Eastern Freetail Bat breeding resources to be removed by the proposal are not unique to the study area and occur extensively in the adjoining Barnunj State Conservation Area and in Meroo National Park. The extent of foraging resources for the Glossy Black-cockatoo, Osprey, Eastern Freetail Bat and Large-footed Myotis to be affected by the proposal is very small relative to the home ranges of these highly mobile fauna species and the presence of extensive foraging resources in adjoining conservation reserves.*

- e) *The proposal will not affect critical habitat as none is listed in the Shoalhaven local government area.*
- f) *The study area does not contain any potential or core Koala habitat pursuant to NSW State Environmental Planning Policy No 44 – Koala Habitat Protection.*
- g) *Following consideration of the Significant Impact Guidelines for determining significance under the Commonwealth Environment Protection & Biodiversity Conservation Act 1999, the proposal is unlikely to have a significant impact on matters of National Environmental Significance, and a referral to the Commonwealth Environment Minister is not necessary.*
- h) *The proposal is unlikely to result in substantial impacts on the adjacent Barnunj State Conservation Area.”*

Flora and fauna issues are further discussed in Section 6.8.

### **5.2.3 Rural Fires Legislation and Planning for Bushfire Protection 2006**

The subject site is identified by mapping prepared by Shoalhaven City Council in conjunction with the Rural Fire Service. Under the provisions of section 100B of the Rural Fires Act, 1997, authorisation is required with respect of bushfire safety in relation to the subdivision of land that could lawfully be used for residential or rural residential purposes. **Figure 5** is an extract from Shoalhaven City Council’s mapping system showing those lands which are identified as bushfire prone.



**Figure 5: Bushfire Prone Lands (extract from SCC GIS).**

As a consequence of this, the application would be integrated development were it not for the fact that the development is a Major Project.

Despite this, a separate Bushfire Assessment Report has been prepared by Bushfire and Environmental Services to address the requirements of the DG EARs and accompanies the application. A copy of this report is provided as **Annexure 5**. This report has recommended the provision of Asset Protection Zones, identified relevant class of construction for dwellings, examined the adequacy of the road layout, water supply requirements and staging of the development. The BES Report has concluded that:

*“...the recommendations within this report will provide an appropriate standard of bushfire protection which is at a standard consistent with current state guidelines for development within bushfire prone lands.”*

This is discussed in greater detail in Section 6.4 of this report.

#### **5.2.4 Rivers and Foreshores Improvements Act (R&FI)**

The R&FI Act makes provisions for the carrying out of excavation works or the removal of obstructions for the improvement of rivers and foreshores and the prevention of erosion of lands by tidal and non-tidal waters.

In particular Part 3A requires that excavation works proposed within 40 metres of protected land (that includes a “river”) be required to obtain a permit from the relevant authority (DNR).

Given the provisions of Section 75U of the EP & A Act however as the subject proposal constitutes a Major Project the need to obtain a permit under Part 3A of this legislation is not required.

Despite this, the proposal does consider the impacts of the development on the water quality as required by the DG EARs and specifically, **Annexure 6** is a Water Cycle Management Report prepared by Storm Consulting. Stormwater and erosion control issues are further discussed in Section 6.6.

#### **5.2.5 Native Vegetation Conservation Act 2003**

The Native Vegetation Conservation Act 2003 (NVC) came into force on 11<sup>th</sup> December 2003 to control the removal of native vegetation. The associated Regulations came into force on 1<sup>st</sup> December 2005. This legislation operates separately to the Environmental Planning and Assessment Act, 1979 (EP&A), and requires that approval be obtained for the clearing of remnant native vegetation or protected regrowth unless

the clearing is a permitted activity. Schedule 1 of the NVC outlines those areas where the Act does not apply, and clause 14 of this schedule outlines the following:

*“Land within a zone designated **“residential”** (but not **“rural-residential”**), **“village”**, **“township”**, **“industrial”** or **“business”** under an environmental planning instrument or, having regard to the purpose of the zone, having the substantial character of a zone so designated, not being land to which a property vegetation plan applies.”*

In relation to the subject site, the land where development is to occur is zoned Residential 2(c) under the provisions of Shoalhaven LEP 1985, and as such, the NVC will have no further implications for this development proposal.

### **5.2.6 National Parks & Wildlife Act**

The National Parks & Wildlife Act, 1974 provides for the protection of national parks, nature reserves, state recreation areas, designated wilderness areas and archaeological sites. The Act also prohibits the disturbance of archaeological sites, threatened and protected fauna, designated wilderness and National Parks.

The NSW National Parks & Wildlife Act 1974 (as amended) provides the primary basis for the legal protection and management of Aboriginal sites within NSW. Implementation of the Aboriginal heritage provisions of this Act is the responsibility of the Aboriginal Heritage Division of the NSW National Parks & Wildlife Service. The rationale behind the Act is to prevent unnecessary or unwarranted destruction of relics and to protect and conserve relics where such action is considered warranted.

If any previously unrecorded Aboriginal sites or relics are detected during the course of carrying out the proposed, work must cease immediately and any finds must be reported to the NSW National Parks & Wildlife Service Southern Directorate and advice sought as to appropriate course of action.

Under the terms of the National Parks & Wildlife Act, 1974, it is an offence to knowingly destroy, damage or deface an Aboriginal relic without obtaining the prior written permission of the Director-General of the NSW National Parks & Wildlife Service.

Pursuant to Section 75U(d) of the EP & A Act however, a permit under Section 87 or a consent under Section 90 of this Act is not required to be obtained for a project affected by Part 3A of the EP & A Act.

Aboriginal Cultural heritage issues are addressed in a separate report titled “Aboriginal Heritage Impact Assessment” prepared by South East Archaeology which forms **Annexure 7** to this EA.

### **5.2.7 SEPP Building Sustainability Index (BASIX)**

This SEPP was introduced in order to ensure consistency throughout the state in applying the BASIX scheme which aims to encourage sustainable residential development.

At this time, the SEPP has no direct implications for the subdivision of land, however residential development on the resultant allotments will need to comply with the required targets applicable at the time of development.

### **5.2.8 State Environmental Planning Policy (SEPP) No. 11 – Traffic Generating Developments**

The proposal entails the subdivision of the site into 142 residential allotments. Under the provisions of Schedule 2 of SEPP 11, development involving:

*“(g) subdivision of land into 50 or more allotments”*

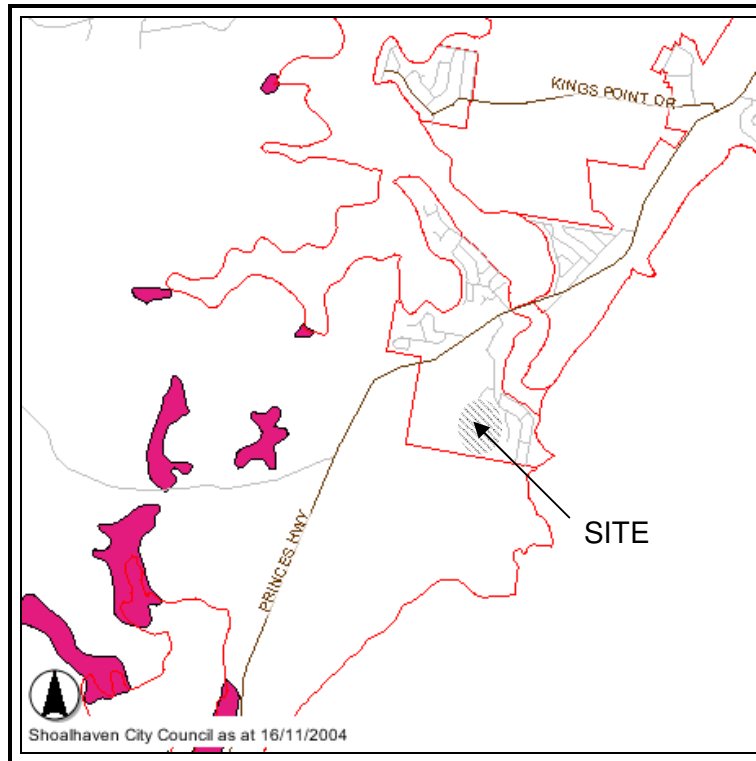
requires consideration by the Local Traffic Committee. Accompanying this Assessment as **Annexure 3** is a Transport Report prepared by CBHK which has concluded that:

- “(i) the proposed residential subdivision comprises 142 lots;*
- (ii) vehicular access to the proposed subdivision will be via Dolphin Point Road, Vista Drive and Bonnie Troon Close, with connections to the adjoining land to the west;*
- (iii) the proposed access arrangements are consistent with Planning Policy No. 1 and DCP 52 and are considered appropriate;*
- (iv) internal roads will be provided in accordance with the principles in Council’s Subdivision Code and AMCORD;*
- (v) the proposed development would have a peak period traffic generation of some 150 vehicles per hour two-way during peak hours; and*
- (vi) the road network will be able to cater for traffic from the approved development to the west, the proposed development, other proposed development to the west, the closure of Dolphin Point Road, future growth on Princes Highway and traffic flows during holiday periods.”*

Traffic matters are further addressed in Section 6.2 of this Environmental Assessment.

### **5.2.9 State Environmental Planning Policy No. 14 – Coastal Wetlands**

The aims of this Policy are to ensure that the coastal wetlands are preserved and protected in the environmental and economic interests of the State. The policy applies to certain wetlands that are identified on mapping accompanying the SEPP. Following is an extract from SCC GIS which identifies those areas identified under SEPP 14.



**Figure 6: Extract from SCC GIS showing SEPP 14 wetlands.**

It is clear from this map that the site is not identified as containing a SEPP 14 wetland, and nor is the adjoining land. In this locality, the only lands that are identified are located well away from the site to the west of the Princes Highway. The provisions of SEPP 14 are considered to have no further implications for this proposal.

#### **5.2.10 State Environmental Planning Policy No 44 – Koala Habitat Protection**

The aims of State Environmental Planning Policy 44 are to:

*“encourage the proper conservation and management of areas of natural vegetation that provide habitat for koalas to ensure a permanent free-living population over their present range and reverse the current trend of koala population decline.”*

The ecological values of the site have been examined by Bushfire and Environmental Services who have indicated in the Flora and Fauna Assessment (**Annexure 4**) that the site does not contain potential koala habitat due to the type of vegetation existing on the property.

The provisions of SEPP No 44 have no further consequences for the application.

### **5.2.11 State Environmental Planning Policy No 55 – Remediation of Land**

SEPP No. 55 aims essentially to promote the remediation of contaminated land for the purpose of reducing the risk of harm to human health and other aspects of the environment. In particular clause 7 of the SEPP requires that a consent authority must not consent to any development unless:

- it has considered whether the land is contaminated;
- if the land is contaminated whether the land is suitable in its contaminated state (or will be suitable after remediation) for the purpose for which the development is proposed; and
- if the land requires remediation to be made suitable, it is satisfied that the land will be remediated before the land is used for that purpose.

Furthermore, if a change of use of land for residential purpose is proposed, where;

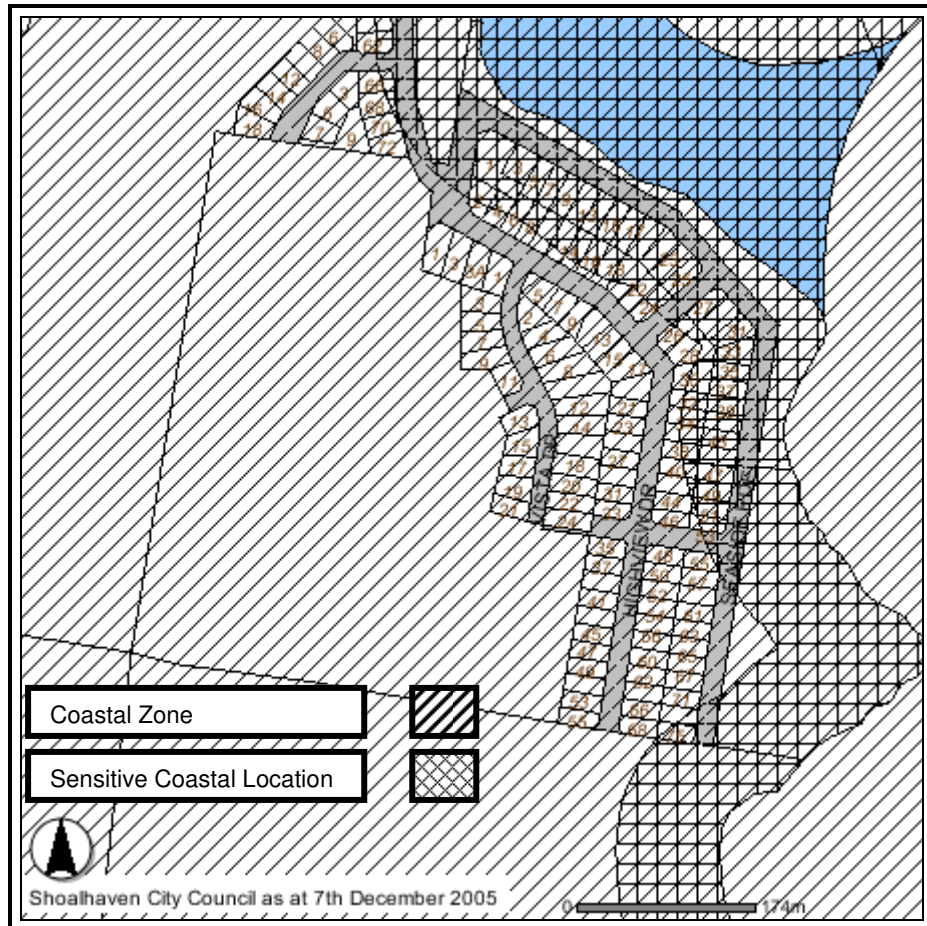
- there is no knowledge (or incomplete knowledge) of past uses;
- on which it would have been lawful to carry out such past uses during any period in respect of which there is no knowledge (or incomplete knowledge).

The consent authority is required to consider a report specifying the findings of a preliminary investigation of the land.

The subject site is relatively undisturbed, except on the fringes where surrounding urban development has impacted on the site by way of weed invasion, generally through the unauthorised dumping of garden waste and the like. Prior to ownership by the ULALC, the site was Crown Land administered by the Department of Lands and appears to have been used for relatively passive purposes. For this reason, contamination is unlikely.

### **5.2.12 State Environmental Planning Policy No. 71 – Coastal Protection**

The site is located within the coastal zone, and as such, the provision of the Coastal Policy and SEPP 71 require consideration. **Figure 7** below shows an extract from Shoalhaven City Council's GIS with the location of the Coastal Zone overlay the locality. In this regard, it is noted that the site is **NOT** within a sensitive coastal location.



**Figure 7: Extract from Shoalhaven City Council's GIS showing the location of the Coastal Zone**

The aims of the SEPP are as follows:

- (a) *to protect and manage the natural, cultural, recreational and economic attributes of the New South Wales coast, and*
- (b) *to protect and improve existing public access to and along coastal foreshores to the extent that this is compatible with the natural attributes of the coastal foreshore, and*
- (c) *to ensure that new opportunities for public access to and along coastal foreshores are identified and realised to the extent that this is compatible with the natural attributes of the coastal foreshore, and*
- (d) *to protect and preserve Aboriginal cultural heritage, and Aboriginal places, values, customs, beliefs and traditional knowledge, and*
- (e) *to ensure that the visual amenity of the coast is protected, and*
- (f) *to protect and preserve beach environments and beach amenity, and*
- (g) *to protect and preserve native coastal vegetation, and*

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- (h) *to protect and preserve the marine environment of New South Wales, and*
- (i) *to protect and preserve rock platforms, and*
- (j) *to manage the coastal zone in accordance with the principles of ecologically sustainable development (within the meaning of section 6 (2) of the Protection of the Environment Administration Act 1991), and*
- (k) *to ensure that the type, bulk, scale and size of development is appropriate for the location and protects and improves the natural scenic quality of the surrounding area, and*
- (l) *to encourage a strategic approach to coastal management.*

The provisions of Clause 8 of the SEPP require consideration of additional matters by the consent authority when assessing development applications. These additional matters are as follows:

- (a) *the aims of this Policy set out in Clause 2,*
- (b) *existing public access to and along the coastal foreshore for pedestrians or persons with a disability should be retained and, where possible, public access to and along the coastal foreshore for pedestrians or persons with a disability should be improved,*
- (c) *opportunities to provide new public access to and along the coastal foreshore for pedestrians or persons with a disability,*
- (d) *the suitability of development given its type, location and design and its relationship with the surrounding area,*
- (e) *any detrimental impact that development may have on the amenity of the coastal foreshore, including any significant overshadowing of the coastal foreshore and any significant loss of views from a public place to the coastal foreshore,*
- (f) *the scenic qualities of the New South Wales coast, and means to protect and improve these qualities,*
- (g) *measures to conserve animals (within the meaning of the Threatened Species Conservation Act 1995) and plants (within the meaning of that Act), and their habitats,*
- (h) *measures to conserve fish (within the meaning of Part 7A of the Fisheries Management Act 1994) and marine vegetation (within the meaning of that Part), and their habitats*
- (i) *existing wildlife corridors and the impact of development on these corridors,*
- (j) *the likely impact of coastal processes and coastal hazards on development and any likely impacts of development on coastal processes and coastal hazards,*

- (k) *measures to reduce the potential for conflict between land-based and water-based coastal activities,*
- (l) *measures to protect the cultural places, values, customs, beliefs and traditional knowledge of Aboriginals,*
- (m) *likely impacts of development on the water quality of coastal waterbodies,*
- (n) *the conservation and preservation of items of heritage, archaeological or historic significance,*
- (o) *only in cases in which a council prepares a draft local environmental plan that applies to land to which this Policy applies, the means to encourage compact towns and cities,*
- (p) *only in cases in which a development application in relation to proposed development is determined:*
  - (i) *the cumulative impacts of the proposed development on the environment, and*
  - (ii) *measures to ensure that water and energy usage by the proposed development is efficient.*

The proposal is considered to be consistent with the requirements of Clause 8 for the following reasons:

- The proposal will not adversely affect public accessibility to and along the coastal foreshore given the location of the site away from the actual coastline and the site does not have frontage to a beach, estuary, coastal lake, headland, cliff or rock platform. The proposal includes the provision of publicly accessible lands throughout the subdivision within road reserves, drainage reserves, open space areas, and formalised pathways/cycleways.
- The development is considered suitable given it adjoins existing residential development to the north, east and west, and appropriately edges the Barnunj Conservation Area to the south.
- The assessment has considered the impacts on Aboriginal cultural heritage and further information is provided in Section 6.10.
- The site is located behind existing development when viewed from the coast.
- The proposal includes measures to maintain water quality of Lake Burrill by the provision of water quality control measures and water sensitive urban design principles. Refer to Section 6.6 for further details.
- The site does NOT contain any rock platforms.

- The proposal is for the subdivision of land only and does not result in the construction of buildings. Measures have been put in place to control development on the allotments proposed and further consideration is given to this in Section 6.3.
- The development is compatible with the established character of the surrounding area.
- The site is well away from the coastal foreshore and the height limits that would be imposed on residential development would ensure that there is no overshadowing of the coastal foreshore or significant view loss from public places.
- Measures have been implemented to conserve plants, animals and habitats and consideration is given to this in Section 6.8.
- The site is an isolated portion of forested land that is surrounded by urban development (existing or future) and as such does not contain wildlife corridors. It is noted that the site is NOT identified as a wildlife corridor under mapping prepared in support of the Illawarra Regional Environmental Plan.
- The site does not contain any areas of heritage, archaeological or historic significance.
- Give the nature of the development, it is unlikely to cause conflict between land based and water based activities.
- The subject proposal has been designed in accordance with the principles of Shoalhaven Planning Policy No. 1 which aims to control the subdivision of land and ensures appropriate integration between adjoining lands which should minimise cumulative impacts of the development; and
- with the introduction of BASIX, all new development on the resultant allotments will need to meet the relevant energy and water saving targets that are required.

Clauses 14 - 16 of the SEPP require consideration of the following additional matters when determining development applications:

*14 Public access*

*A consent authority must not consent to an application to carry out development on land to which this Policy applies if, in the opinion of the consent authority, the development will, or is likely to, result in the impeding or diminishing, to any extent, of the physical, land-based right of access of the public to or along the coastal foreshore.*

The property does not have frontage to a coastal foreshore area. As such, this clause is not considered to have implications for this proposal.

### 15 Effluent disposal

*The consent authority must not consent to a development application to carry out development on land to which this Policy applies in which effluent is proposed to be disposed of by means of a non-reticulated system if the consent authority is satisfied the proposal will, or is likely to, have a negative effect on the water quality of the sea or any nearby beach, or an estuary, a coastal lake, a coastal creek or other similar body of water, or a rock platform.*

The site will be connected to the reticulated sewerage system.

### 16 Stormwater

*The consent authority must not grant consent to a development application to carry out development on land to which this Policy applies if the consent authority is of the opinion that the development will, or is likely to, discharge untreated stormwater into the sea, a beach, or an estuary, a coastal lake, a coastal creek or other similar body of water, or onto a rock platform.*

The site drains into the ocean via Dolphin Point wetland and then Lake Burrill. As part of this development, it is intended to provide water quality control measures including constructed wetlands, bio-filtration trenches. This is addressed in the report prepared by Storm Consulting (**Annexure 6**) and is further discussed in Section 6.6 of this Environmental Assessment. The development is considered to be consistent with the requirements of Clause 16.

#### 5.2.13 NSW Coastal Policy

The NSW Coastal Policy applies:

- three nautical miles seaward of the mainland and offshore islands;
- one kilometre landward of the open coast high water mark;
- a distance of one kilometre around:
  - ⇒ all bays, estuaries, coastal lakes, lagoons and islands;
  - ⇒ tidal waters of coastal rivers to the limit of mangroves, as defined by NSW Fisheries (1985) maps or the tidal limit whichever is closer to the sea.

The subject site is located within the coastal zone and as such the NSW Coastal Policy 1997 applies. The Policy guides the management and planning of the coastal zone and has a strong emphasis on ecologically sustainable development. The Policy essentially brings together all policies, programs and standards that apply to the coastal zone into the one document. In addition, the Policy seeks to co-ordinate the multiple agencies and authorities, and various levels of government, to ensure consistency in application of the

Policy and outline who is responsible for implementing the Policy, and what stage in the development process. The Coastal Policy culminates in a number of Strategic Actions that outline Goals and a series of Strategic Actions. Table 2 of the Coastal Policy outlines the Strategic Actions that are relevant to development control, whilst Table 3 of the Coastal Policy outlines the Design and Locational Principles for consideration in Development Control. These are considered in **Table 3** below.

**TABLE 3**

| <b>TABLE 2 – NSW Coastal Policy 1997 – Compliance Checklist for the Preparation of Development Proposals<br/>Malbec Properties – Lot 171, DP 1081810 - Highview Drive, Dolphin Point</b> |   |                               |   |
|--|---|-------------------------------|---|
| <b>Strategic Action</b>  | <b>Provision</b>  | <b>Compliance (yes/no/na)</b> | <b>Indicate how the Development Proposal is consistent/inconsistent with the Policy</b>   |
| <b>Natural environment</b>   |   |                               |   |
| 1.1.6  | Negotiation of Voluntary Conservation Agreements  | N/A                           | Consideration of ecological issues relevant to this proposal have been addressed in Section 6.8 and <b>Annexure 4</b> .   |
| 1.1.7  | Conservation and management of seagrasses, mangroves, saltmarshes and wetlands                                  | N/A                           | The subject site does not contain these features and the development does not cause any impact due to water quality control measures that are proposed in conjunction with the subdivision works. |
| 1.2.3  | Consideration to be given to changes in fish populations and communities.                                       | N/A                           | The proposal is unlikely to impact on fish populations.   |
| 1.2.5  | List of threatened species, populations and ecological communities will be established under the TSC Act        | N/A                           | This strategic action does not relate to the consideration of this project however <b>Annexure 4</b> and Section 6.8 of this EA address the requirements of the TSC Act.                          |
| 1.3.1  | The EPA will continue to licence limits on discharge points such as STP   | N/A                           | The proposal does not include discharge of pollution. <b>Annexure 6</b> addresses water quality.  |
| 1.3.2  | Non-point source pollution will be addressed by Council's through the development of best management practices. | Yes                           | The proposal is accompanied by <b>Annexure 6</b> addressing the stormwater impacts associated with the development. Refer to Sections 6.5 and 6.6.  |
| 1.3.7  | Maintain high water quality for coastal waters  | Yes                           | <b>Annexure 6</b> considers the impacts of the development on water quality. Refer to Section 6.6.  |

| <b>Strategic Action</b>  | <b>Provision</b>   | <b>Compliance (yes/no/na)</b> | <b>Indicate how the Development Proposal is consistent/inconsistent with the Policy</b>   |
|--|--|-------------------------------|---|
| 1.3.8  | Discharge of contaminated stormwater to coastal waters will be minimised   | Yes                           | The proposal includes water quality control measures to ensure water discharged from the site will be of a suitable quality. This is addressed in <b>Annexure 6</b> . Refer to Section 6.6, |
| 1.3.12   | Discharge of toilet and galley waste will be enforced  | N/A                           | Does not apply to this development.   |
| 1.3.13   | Re-use of treated bio-solids and effluent will be investigated.  | N/A                           | Reuse of biosolids and treated effluent is not available at the subject site.   |
| 1.4.5  | Consideration being given to coastal hazards   | N/A                           | The property is not subject to coastal hazards given the location of the property.  |
| 1.4.7  | Development proposals in or adjacent to estuaries must consider the potential impacts under the Rivers and Foreshores Improvements Act 1948 and Fisheries Management Act 1994.       | Yes                           | Accompanying the EA as <b>Annexure 6</b> is report which examines the impacts of the development on water quality. Refer Section 6.6 of this EA.  |
| <b>Give impacts of natural processes and hazards a high priority</b> |  |                               |   |
| 2.1.3  | Physical and ecological processes and hazards will be given consideration when assessing development applications.   | Yes                           | Accompanying the EA is a report addressing water quality and flooding ( <b>Annexure 6</b> ).  |
| 2.1.4  | Consider impacts of Acid Sulfate Soils   | N/A                           | The subject site is not identified by Council mapping as being affected by Acid Sulfate Soils – refer Section 5.4.1.2.  |
| 2.2.2  | Consideration of sea level change  | N/A                           | This is a consideration for Council, Dept of Environment and Climate Change and DoP when making policy and strategic planning decisions.  |
| <b>Aesthetic qualities of the coastal zone</b>                       |  |                               |   |
| 3.2.1  | Consideration shall be given to the South Coast Design Guidelines.   | Yes                           | This document has been replaced by the Coastal Design Guidelines which are considered in Section 5.2.14.  |
| 3.2.4  | In assessing development application, consideration is to be given to the design and locational principles contained in the Coastal Policy Appendix C Table 3 of the Coastal Policy. | Yes                           | See below   |
| 3.2.5  | Navigational aids, marine communication towers, warning signs and moorings will be sited to minimise visual impacts  | N/A                           | Not applicable to this proposal.  |

| Strategic Action                               | Provision  | Compliance (yes/no/na) | Indicate how the Development Proposal is consistent/inconsistent with the Policy   |
|--|--|------------------------|--|
| <b>Cultural Heritage</b>                       |  |                        |  |
| 4.2.3  | Coastal sites of Aboriginal significance shall be identified                                       | Yes                    | Accompanying this EA as <b>Annexure 7</b> is an Aboriginal Heritage Impact Assessment prepared by South East Archaeology. This is further addressed in Section 6.10. |
| <b>Ecological Sustainable Use of Resources</b> |  |                        |  |
| 5.1.11   | Land use mapping will be utilised as tool for identifying suitable land uses                       | N/A                    | Not applicable in this assessment however the subject site has been identified for residential development by various policies for in excess of 30 years.            |
| 5.3.3  | Procedures and permits for aquaculture will be reviewed and new guidelines issued                  | N/A                    | Not applicable to this project.  |
| 5.3.4  | The recovery of mineral resources in the coastal zone will be responsible.                         | N/A                    | Not applicable to this project.  |
| <b>Sustainable Human Settlement</b>            |  |                        |  |
| 6.1.4  | Canal estate development will not be permitted   | N/A                    | This proposal does not include canal estate development.   |
| <b>Public Access and Use</b>                   |  |                        |  |
| 7.1.5  | New tourism development near foreshore areas will require provision of public access to foreshores | N/A                    | The proposal does not include tourist development whilst the site does not include foreshore land.   |

**TABLE 3 – Design and Locational Principles for Consideration in Development Control (Strategic Action 3.2.4)**

| Principle   | Compliance | Comment  |
|---|------------|--|
| Only developments which do not compromise the natural and cultural values of the area shall be permitted on beaches and frontal dunes | N/A        | The land the subject of the application does not include beaches or frontal dunes.   |
| Works to protect, restore and rehabilitate beaches and frontal dunes may be permitted where appropriate.                              | N/A        | The land the subject of the application does not include beaches or frontal dunes.   |
| Undeveloped headlands will be preserved.  | N/A        | <p>The subject property is located in excess of 200 metres west of a headland, and separated by existing residential development within Highview Drive and Seaside Parade. The site is not prominent from the beach due to the separation, topography and existing development. This is further demonstrated in <b>Annexure 11</b> Visual Analysis which features a series of photographs from the locality.</p> <p>Existing development in the vicinity of the subject site is limited to single residential dwellings having both one and two storeys. Although this proposal does not propose any buildings per se, dwellings will inevitably result once the subdivision develops. Shoalhaven City Council controls the overall height and scale of residential development through its policy titled “Building Height and Amenity in Residential Areas”. Amongst other things, this specifies a maximum height of 8.5 metres, two levels above natural ground, and a floor space ratio of 0.6:1 (60%). It is likely that it is this policy that many dwellings within Dolphin Point would have been assessed against, apart from those sited nearer the water, in which case the more stringent requirements under Council’s Residential Development in Foreshore Areas DCP No 62 would apply. Despite this, Design Guidelines (<b>Annexure 2</b>) are proposed to encourage an appropriate built form at the site.</p> |

| Principle   | Compliance | Comment   |
|---|------------|---|
|   |            | <p>It is considered that the development of the site will not lead to an unsatisfactory impact for the following reasons:</p> <ul style="list-style-type: none"> <li>• The site is well setback from the actual headland.</li> <li>• The site is not prominent from the coastline.</li> <li>• The site is not visible from beaches near the site.</li> <li>• The property is sited amongst existing residential development.</li> <li>• Shoalhaven City Council has adequate policies in place to control residential future development</li> </ul> |
| <p>Any developments on headlands already developed should be strictly limited to height and scale no greater than existing buildings and will require an environmental assessment, including an assessment of visual impact from adjoining beaches.</p>   | <p>N/A</p> | <p>The land the subject of the application does not include a headland.</p>   |
| <p>Beaches and waterfront open space will be protected from overshadowing. The standard to be applied will vary according to local circumstances, however generally the standard to be applied is:</p> <ul style="list-style-type: none"> <li>• in cities or large towns, no overshadowing before 3pm midwinter and 6:30pm Summer Daylight Saving Time;</li> <li>• elsewhere, no overshadowing before 4pm midwinter and 7pm Summer Daylight Saving Time.</li> </ul> | <p>Yes</p> | <p>The land the subject of this application is not near a beach and the further development of the resultant allotments will not overshadow beach areas.</p>  |

| Principle   | Compliance | Comment   |
|---|------------|---|
| <p>Tall buildings (greater than 14 metres) will not be permitted outside cities, towns and growth centres except where they can be justified due to environmental planning considerations (eg hinterland topography), the prevailing scale of development or a relevant LEP,DCP or REP. Any such proposals should be subject to environmental assessment, public consultation and the concurrence of the Director- General of the Department of Urban Affairs and Planning.</p>   | N/A        | <p>The proposal does not include buildings. Furthermore, Shoalhaven City Council's Policy to Control Building Heights in Residential Areas will provide requirements controlling the heights of future development.</p> |
| <p>Applications for buildings taller than 14 metres within cities, towns and growth centres will be assessed on their merits having regard to the prevailing scale of development and in accordance with any relevant LEP, DCP or REP. As a general principle, buildings taller than 14m should generally not be permitted in urban areas unless subject to environmental assessment, public consultation and the concurrence of the Director-General of the Department of Urban Affairs and Planning.</p>  | N/A        | <p>The proposal does not include any buildings whilst it is likely that the controls already adopted by Shoalhaven City Council in this residential locality would not permit such structures.</p>                      |
| <p>Public setback lines will be set for every new development that immediately adjoins coastal lakes, estuaries, beaches, foreshores and cliffs. The amount of setback will be determined by consent authorities taking into consideration specific details of public access requirements, local topography, scenic factors (including the impact of the development as viewed from the waterway and foreshore area), coastal hazards (including sea level rise considerations), building design criteria and pollution and siltation management measures. No new development will be permitted to impede public access to foreshore areas. Apart from facilities essential to surf life saving, community facilities, works to protect property and environmental restoration measures, no development will be permitted seaward of this setback line and developers will be required to dedicate this land for public use or enter into a satisfactory agreement for ensuring public access, use and maintenance of the area to a suitable standard, as a condition of the development.</p> | N/A        | <p>The subject site does not adjoin a coastal lake or estuary, beach, foreshore or cliff.</p>   |

| Principle  | Compliance | Comment   |
|--|------------|---|
| <p>As a continuation of existing practice, any tourist or recreational development which is adjacent to, or proposes to utilise the natural assets of, a National Park, Nature Reserve or State Recreation Area must not compromise the natural values of the area. Any tourist developments adjacent to areas reserved or dedicated for conservation purposes must be consistent with the "Guidelines for Tourist Developments in Proximity to Major Natural Areas in the North Coast Region" prepared by the Department of Urban Affairs and Planning or other conservation oriented design controls adopted in an LEP or DCP.</p> | <p>N/A</p> | <p>The proposal does not include tourist development. Impacts on the adjoining Barnunj SCA are considered in Sections 6.3 (Visual Analysis) and 6.9 (Ecological Impacts).</p> |

It is considered that the proposal is consistent with the requirements of the Coastal Policy 1997.

#### **5.2.14 Coastal Design Guidelines 2003**

The Coastal Design Guidelines for NSW were prepared by the NSW State Government with reference to the NSW Government's Coastal Policy 1997 and complement the Government's Coastal Protection Package (which included SEPP No 71). The Coastal Design Guidelines are based upon the principles of ecologically sustainable development. The Guidelines provide additional direction to supplement the limited design matters contained in the Coastal Policy and are broad brush guidelines that support the place-based planning approaches espoused in PlanFirst, the NSW Government's plan making reform package released in 2002.

The Guidelines operate by firstly applying the hierarchy of coastal settlements, which provides seven different settlement types ranging in size from Coastal Cities down to isolated coastal dwellings on large rural allotments.

Part 1 of the Guidelines outlines the relevant issues, opportunities, and desired future character which apply to each of the seven settlement types.

Part 2 of the Guidelines outlines the 5 Design Principles that should apply to each of the Settlements, providing a series of 'desirable' and 'undesirable' practices that are to be applied to five principles for coastal settlements. The 5 Design Principles relate to:

- defining the footprint and boundary of settlements,
- connecting open spaces,
- protecting the natural edges,
- reinforcing the street pattern,
- appropriate buildings in a coastal context.

Part 3 concludes the document and outlines how the Guidelines are to be implemented.

It should be noted that since the release of the NSW Coastal Design Guidelines, Shoalhaven City Council has adopted Shoalhaven Planning Policy No 1 (SPP No. 1). The requirements contained within this document relate to, amongst other things, the location of a collector road and perimeter roads, open space/drainage reserves and the like. This document was prepared subsequent to the release of the Coastal Design Guidelines and considers many of its requirements. The requirements of SPP No. 1 are outlined below in greater detail in Section 5.6.1.

The following addresses the 5 Design Principles contained with the NSW Coastal Design Guidelines that are considered to have relevance to this proposal:-

Principle 1 - Defining the Footprint and Boundary of Settlements

The subject property is sited adjoining existing residential development to the east and north, undeveloped land zoned for residential development to the west, and the Barnunj SCA to the south. **Figure 4** provides a locational context for the subject site which shows that it is surrounded on three sides by an existing or proposed urban environment. It is considered that development of the subject site would form an appropriate southern edge to the village and its southern limit bounded by the Barnunj SCA.

The proposal allows for the following:

- retention of some vegetation within the site along riparian corridors that have been identified by Council in SPP No. 1;
- provision of a permeable subdivision pattern allowing for pedestrian and cycle movements both within and beyond the site to places of importance, such as the foreshore reserves;
- utilises existing public infrastructure;
- Does not intrude into view corridors that are considered to have importance; and
- sited topographically below the Barnunj SCA, the proposal provides an opportunity to properly edge, and thereby minimise impacts on, this important ecological resource.

Principle 2 - Connecting Open Space Networks

The subdivision provides for the provision of open space in the following locations:

- the north-western corner of the site; and
- along the drainage corridor that runs from the south-western corner of the site.

These have been located in accordance with SPP No. 1, to protect valuable habitat, to improve water quality, and ensure protection from natural hazards.

In addition to this, the site is well located close to the foreshores of Lake Burrill and the ocean being within walking distance through the public road network.

In general, it is considered that the proposal provides an adequate open space network to link with that existing, the adjoining Barnunj State Conservation Area and the developing lands to the west.

#### Principle 3 - Protecting the Natural Edges

The subject site does not have direct frontage to the actual coastline or foreshore areas, however it does adjoin the Barnunj SCA and an Endangered Ecological Community (EEC) which is recommended for retention. It is here where appropriate edge treatment is critical to ensure that impacts are acceptable.

In relation to accessibility to the coastline, the site provides for vehicle, pedestrian and cycle use of the local road network to link it with existing and proposed residential development where suitable public infrastructure is available.

In relation to the Barnunj SCA, the proposal seeks to edge this resource with sealed public roads to avoid direct common boundary neighbours and reasonably protect these areas.

#### Principle 4 - Reinforcing the Street Pattern

The proposal seeks to reinforce the street pattern by:

- building on the established street pattern and using existing access points where possible;
- having a clearly defined road hierarchy with one obvious collector road at the entrance to the site, coupled with a series of minor roads serving the remainder of the allotments;
- a perimeter road to properly edge the Barnunj SCA, thereby reducing the risk of bushfire plus provision of a strategic position to fight fires that may threaten the Dolphin Point village;
- having a road system that encourages lower speeds culminating in a more pedestrian friendly environment;
- linkages to the west to access the adjoining lands and provide emergency egress;
- appropriate widths of roads;
- maintaining the established amenity within Bonnie Troon Close by discouraging through traffic and encouraging appropriate speeds;
- permeability for motorists, cyclists and pedestrians; and
- generally consistent with the requirements of SPP No. 1.

### Principle 5 - Appropriate Buildings for a Coastal Context

Although no buildings are proposed as part of this project, it is important that the allotments that are created allow for the development of appropriate residences in accordance with that espoused in the Coastal Design Guidelines. In this regard, it is considered that the proposal allows for suitable residential development due to:

- the size of the allotments;
- the proposed orientation of the majority of the subdivision;
- suitable road pattern;
- due regard to natural hazards;
- preservation of reasonable native vegetation within the site.

It should be noted that Shoalhaven City Council has controls relating to future residential development on the resultant allotments and this is expanded upon in Section 6.3 of this report. Further Design Guidelines are proposed to further maintain the established character and promote appropriate design.

It is considered that the proposal is generally consistent with the requirements of the NSW Coastal Design Guidelines 2003.

## **5.3 REGIONAL PLANNING PROVISIONS**

### **5.3.1 Illawarra Regional Environmental Plan**

The subject site is affected by the provisions of the Illawarra Regional Environmental Plan.

The objectives of the Regional Plan that apply to living areas are:

- *to ensure that urban expansion is orderly and efficient having regard to the constraints of the natural environment and that sufficient land is available to prevent price rises resulting from scarcity of land,*
- *to ensure that new residential land or land for higher density development is only developed where there are adequate utility and community services available or there is a commitment from the relevant authorities or developer to provide those services,*
- *to provide for a range of lot sizes, dwelling types and tenure forms to cater for varying household needs in all local government areas,*
- *to ensure that residential development does not take place on hazard-prone lands, and*
- *to minimise bush fire risks to urban development.*

It is considered that the application is consistent with these objectives as follows:

- the land has been identified for at least 30 years to provide for the expansion of the Dolphin Point village;
- the project appropriately considers the natural hazards applying to the site, principally relating to bushfire along the southern boundary, and the low lying nature of a small portion in the north of the site. The proposal provides appropriate mitigation, including Asset Protection Zones to the bushfire hazard, and does not seek to develop the low lying portion of the site with residential allotments, with this area forming the location of water quality control measures;
- the subdivision provides a variety of allotment sizes, including traditional allotments, along with a larger sized lot to provide an opportunity for higher density housing; and
- all relevant services are available and can be connected to the site.

A series of maps are attached to the Plan, which identify localities where specific policy issues apply. In relation to these maps, the subject land is:

- NOT identified as containing rainforest vegetation.
- NOT identified as a wildlife corridor.
- NOT Identified as land with prime crop and pasture potential.
- NOT identified as containing extractive resources.
- Identified as land with landscape or environmental attributes.

#### **5.3.1.1 Landscape and Environmental Attributes**

The Regional Plan does not provide requirements relating directly to the assessment of development applications, instead requiring that draft local environmental plans be prepared having regard to recommendations contained in the *"Illawarra Region Landscape and Environmental Study"*. The *"Illawarra Region Landscape and Environment Study"* supports the Regional Plan and provides recommendations in terms of these attributes. In relation to the subject site, it is located within Unit 7 – South Coast as identified by this study. The subject land is identified by the VI policy recommendation however the *"Illawarra Region Landscape and Environment Study"* has no specific requirements in relation to this.

### **5.3.2 South Coastal Regional Strategy**

The primary purpose of the Regional Strategy is to ensure that adequate land is available and appropriately located to sustainably accommodate projected housing and employment needs for the South Coast Region for the next 25 years.

In summary the aims of the strategy include:

- *Protect high value environments including pristine coastal lakes, estuaries, aquifers, threatened species, vegetation communities and habitat corridors by ensuring that no new urban development occurs in these important areas and their catchments.*
- *Cater for a housing demand of up to 45,600 new dwellings by 2031 to accommodate the additional 60,000 people expected in the Region over the next 25 years.*
- *Increase the amount of housing in existing centres to ensure the needs of future households are better met, in particular the needs of smaller households and an ageing population.*
- *Prioritise and manage the release of future urban lands to ensure that new development occurs in and around existing well serviced centres and towns.*
- *Use the recommendations of the Sensitive Urban Lands Panel to guide the finalisation of the development form and environmental management of the 17 'sensitive urban lands'.*
- *Manage the environmental impact of settlement by focusing new urban development in existing identified growth areas such as Nowra-Bomaderry, Milton-Ulladulla, Batemans Bay and Bega.*
- *Only consider additional development sites if it can be demonstrated that they satisfy the Sustainability Criteria (Appendix 1).*
- *No new towns or villages will be supported unless compelling reasons are presented and they can satisfy the Sustainability Criteria.*
- *No new rural residential zones will be supported unless as part of an agreed structure plan or settlement strategy.*
- *Ensure an adequate supply of land to support economic growth and provide capacity to accommodate a projected 25,800 new jobs, particularly in the areas of finance, administration, business services, health, aged care and tourism.*
- *Limit development in places constrained by coastal processes, flooding, wetlands, important primary industry resources and significant scenic and cultural landscapes.*
- *Protect the cultural and Aboriginal heritage values and visual character of rural and coastal towns and villages and surrounding landscapes.*

*Where development or rezoning increases the need for State infrastructure, the Minister for Planning may require a contribution to the provision of such infrastructure, having regard to the State Infrastructure Strategy and equity considerations.*

The proposal considers the provisions of the South Coast Regional Strategy as:

- the subject site is already zoned for residential purposes and will contribute to the target of 23 600 dwellings for the City of Shoalhaven;
- the proposal has properly considered the ecological (flora and fauna, water quality, soils) and natural hazards (flooding/bushfire) applying to the subject lands;
- the application is supported by a Heritage Impact Assessment that examines cultural and Aboriginal heritage values;
- the locality is already serviced with capacity to cater for additional demand generated by this planned expansion of the Dolphin Point village; and
- the proposal does not seek to rezone lands, relying upon residential zoning that has been in place for in excess of 30 years.

## **5.4 LOCAL ENVIRONMENTAL PLAN**

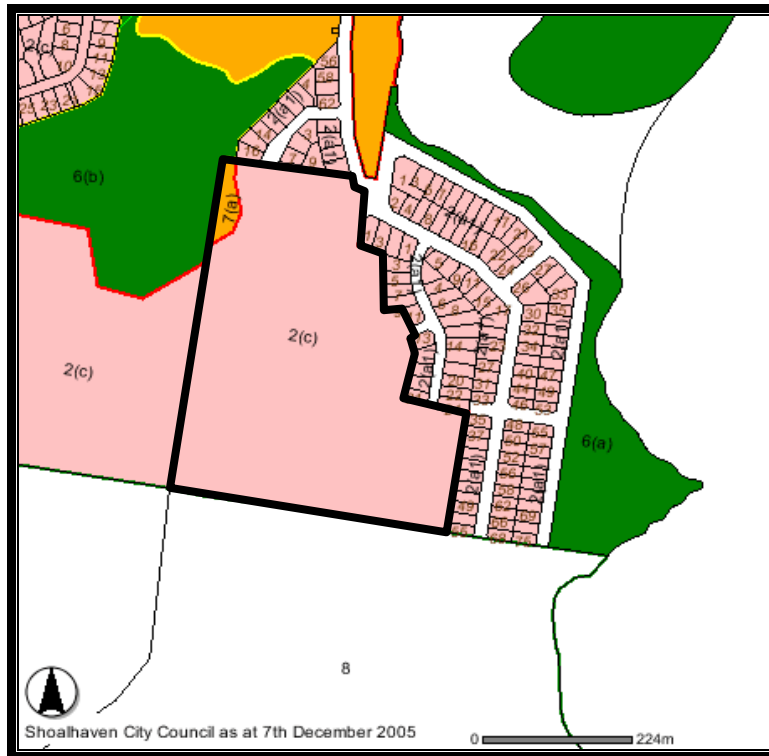
### **5.4.1 Shoalhaven Local Environmental Plan 1985**

#### **5.4.1.1 Zoning**

The subject site has been zoned for urban purposes since 1972 when Amendment No 3 of the Shire of Shoalhaven IDO No 1 zoned the land for village purposes. An extract of IDO No. 1 Amendment No. 3 is shown as **Figure 8** over page which shows the entire zoning map and the subject site is clearly visible as being zoned Village.

The site is currently zoned predominantly Residential 2(c) under the provisions of Shoalhaven LEP 1985, however a small low-lying portion of the site, located in the north eastern corner is zoned Environmental Protection Ecology 7(a). All of the proposed residential allotments are located within that part of the site zoned Residential 2(c). **Figure 9** is an extract from Council's GIS which shows the location of the relevant zones.





**Figure 9: Extract from Council’s GIS showing location of relevant zones.**

The objectives of the Residential 2(c) are:

*“to provide for new residential areas with a range of housing types with provision for urban facilities to serve the local community.”*

The development of the proposed subdivision will provide additional residential development opportunities and is entirely consistent with these objectives.

The objectives of the Environmental Protection Ecology 7(a) are:

- “(a) to protect and conserve important elements of the natural environment, including wetland and rainforest environments;;*
- (b) to maintain the intrinsic scientific, scenic, habitat and educational values of natural environments;*
- (c) to protect threatened species and habitats of endangered species;*
- (d) to protect areas of high biodiversity value; and*
- (e) to protect and enhance water quality in the catchment.”*

That land zoned 7(a) is not proposed for any development as part of this proposal, with the land remaining undeveloped. Furthermore, the development provides measures to ensure the protection of soil and water quality on lands sited above the 7(a) zone. In this regard, the Storm Report has addressed this matter and has concluded that:

*“Water quality impacts from the development are limited through the diversion of stormwater away from sensitive areas, and through the implementation of stormwater treatment systems. Stormwater discharged to from the site is treated to the current EPA guideline of 80% removal of suspended solids, and 45% removal of nutrients from the development site.”*

Soil and water quality are further discussed in Section 6.6.

On this basis, it is considered that the proposal is entirely consistent with the relevant objectives of the 7(a) zone.

#### **5.4.1.2 Environmental Management – Division 5**

Shoalhaven LEP at Division 5 relates to the environmental management of certain lands, contingent on certain locational criteria. The majority of these apply only to land zoned for rural or environmental protection purposes and as such will not be relevant to this proposal. The following addresses those matters that may apply or have relevance to this proposal.

##### Clause 21 – Land of Ecological Sensitivity

Clause 21 applies to those lands that are identified on the accompanying LEP map with distinctive hatching. The relevant mapping does NOT identify the subject site with distinctive hatching.

##### Clause 22 – Activities in Zone No 1(c), 7(a), 7(c), 7(d1), 7(d2), 7(e), 7(f1), 7(f2), and 7(f3)

Clause 22 applies to a portion of the site zoned Environmental Protection 7(a) and requires that consent be obtained for the removal of trees, clearing the land of trees, placing fill upon land, altering the surface of the land.

This proposal does NOT propose the removal of trees, clearing the land of trees, placing fill upon land, altering the surface of the land and as such, Clause 22 has no further implications.

##### Clause 23 – Protection of Streams

Clause 23 applies to development in the vicinity of watercourses and has the following objectives:

- “(a) to protect water quality;*
- (b) to protect aquatic habitats and riparian communities;*
- (c) to protect and enhance the function of perennial water courses and their associated vegetation as habitat corridors;*
- (d) to protect the scenic and recreational values of perennial water courses and their associated vegetation communities; and*
- (e) to protect perennial water courses from erosion and sedimentation.”*

The clause requires at subclause 4 that *"despite clause 9, the consent of the Council is required for any development within 50 metres from the centre line of a perennial water course or, where the perennial water course is greater than 20 metres in width, from the bank of the perennial water course."*

The 1:25 000 topographic map for 'Tabourie' has been reviewed which shows that the site does not contain a perennial watercourse, with watercourses on the site being limited to ones having intermittent flows. Clause 23 has no further implications for this proposal.

#### Clause 24 – Water Catchment Areas

The site is not within a water catchment area and as such, Clause 24 has no further implications for the proposal.

#### Clause 26 – Soil, Water and Effluent Management

This clause requires the following:

- "(1) A person must not carry out development that relates to the habitation of land by humans unless and until arrangements satisfactory to the Council have been made by the applicant (and if the applicant is not the owner, the owner also) for the provision of a water supply, facilities for the removal of sewage, and for the drainage of stormwater and other surface water from the land.*
- (2) In deciding whether arrangements for drainage of stormwater and other surface water and the treatment and disposal of effluent are satisfactory, the Council must take into account whether the proposed systems can be accomplished in a manner which meets the following objectives:
  - (a) economical feasibility and practicality in terms of design, installation and maintenance;*
  - (b) protection of public health;*
  - (c) protection of surface water;*
  - (d) protection of ground water;*
  - (e) encouragement of the utilisation of wastewaters as a resource rather than a waste for disposal; and*
  - (f) protection of community amenity.**
- (3) Despite any other provision of this plan, except clauses 2, 9 (3) and 21 and the objectives of the zone in which development the subject of this clause is proposed, the Council may consent to the construction of devices which, in the opinion of the Council, are to be used principally for the purpose of soil and water management or water pollution control.*

It is intended that the development connect to the reticulated water and sewerage supply. This is further discussed in Section 6.7 of this Environmental Assessment.

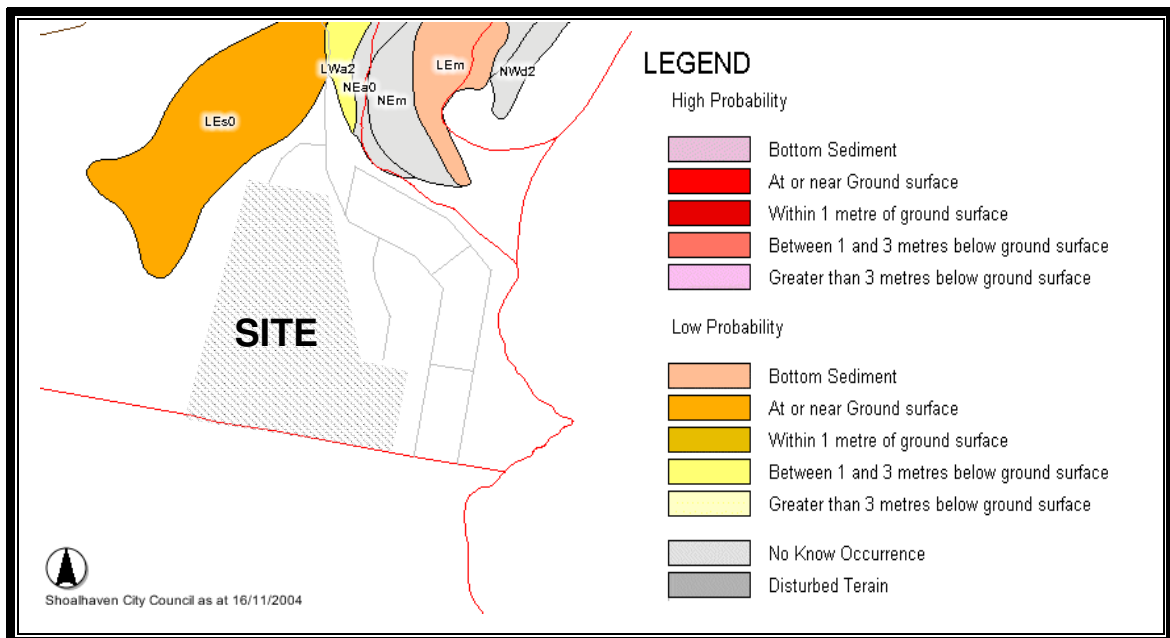
Issues pertaining to stormwater and water quality are addressed in Section 6.5 and 6.6 of this Environmental Assessment.

**Clause 27 – Acid Sulfate Soils**

Clause 27 of SLEP specifies:-

- “(1) This clause applies to land identified as having high probability to be affected by acid sulfate soils on the map prepared by the Department of Land and Water Conservation entitled Acid Sulfate Soil Risk Map dated December 1997 and available for public inspection at the office of the Council.*
- “(2) Despite any other provision of this plan, the consent of the Council is required for any development which involves or is likely to involve, through drainage, earthworks, or any other means, the exposure to the atmosphere of any part of soil which contains iron pyrites within land to which this clause applies.*
- “(3) The Council must not consent to development described in subclause (2) unless it is satisfied that measures can and will be taken to avoid or mitigate the actual or potential contamination of waterways in the vicinity of the land concerned by acid from acid sulfate soils.”*

**Figure 10** is an extract from SCC GIS identifying lands affected by acid sulphate soils. The subject site is not identified, and as such, this clause has no further implications for the proposal.



Clause 28 – Bushfire prone land

The site is identified as being bushfire prone by mapping prepared by Shoalhaven City Council and signed by the RFS. Clause 28 requires:-

- (1) *The Council must not grant consent to the carrying out of development on bush fire prone land if it is of the opinion that:*
  - (a) *the development may have a significant adverse effect on the implementation of:*
    - (i) *any strategies for bush fire hazard reduction or risk management adopted by the Council, or*
    - (ii) *any relevant provisions of the Act or the Rural Fires Act 1997, and*
  - (b) *the development, including the arrangements for access to and from the development, may constitute a significant threat to the lives of residents, visitors or emergency services personnel, and*
  - (c) *the development may give rise to an increased demand for emergency services during bush fire events that will result in a significant decrease in the ability of the emergency services to effectively control major bush fires.*

**Note:** *Section 146 of the Act provides that bush fire prone land is land recorded by the Council as such on a map certified by the Commissioner of the NSW Rural Fire Service as a bush fire prone land map for the area of the Council.*
- (2) *The Council must not grant consent to the carrying out of development on bush fire prone land unless it is satisfied that adequate measures are proposed to avoid or mitigate the threat from bush fire, having regard to:*
  - (a) *the siting of the development, and*
  - (b) *the design of, and the materials used in, any structures involved in the development, and*
  - (c) *the clearing of vegetation, and*
  - (d) *the provision of asset protection zones, landscaping and fire control aids (such as roads and water supplies).*
- (3) *Before deciding to grant consent to any development on bush fire prone land, the Council:*
  - (a) *must have regard to the requirements set out in Planning for Bushfire Protection (ISBN 0 9585987 8 9), prepared by Planning & Environment Services, NSW Rural Fire Service in co-operation with the Department of Planning (as it then was), and published in December 2001, and*
  - (b) *must be satisfied that those requirements will be met as far as is practicable in the circumstances.*

Accompanying this application is a Bushfire Protection Assessment prepared by Bushfire and Environmental Services. This addresses the requirements of Planning for Bushfire Protection and has concluded that:

*“...the recommendations within this report will provide an appropriate standard of bushfire protection which is at a standard consistent with current guidelines for development within bushfire prone lands.”*

This is addressed further in Section 6.4 of this Environmental Assessment.

#### Clause 29 – Development of Flood Liable Land

The vast majority of the site is on higher lands and as such, is not considered flood liable. According to Shoalhaven City Council, the 1% AEP is RL 2.6 m AHD. The majority of the site is relatively high, however a small portion of the site is lower lying.

Clause 29 of the LEP requires that:

- “(2) Council may consent to the carrying out of development on flood liable land if:*
- (a) the development is for a purpose ancillary or incidental to the use of land for the purpose of agriculture, or*
  - (b) the development comprises the extension or alteration of an existing dwelling-house, or*
  - (c) the land is in any urban zone under this plan, or*
  - (d) the Council has received a flood assessment report, in relation to the land, that addresses each of the matters referred to in subclause (3), and the Council is of the opinion that the development is feasible despite the land being flood liable.”*

In this instance, the development is restricted to that part of the site zoned Residential 2(c) and is permissible under subclause (c). Flooding and hydrology are further discussed in Section 6.5 of this report.

## **5.5 DEVELOPMENT CONTROL PLANS**

### **5.5.1 DCP 100 – Subdivision Code**

The proposal, being for the subdivision of the site into residential allotments, is subject of DCP 100 – Subdivision Code which applies when the subdivision of land is proposed.

The aims of the DCP are:

- *to encourage high quality urban design and residential amenity;*
- *to set appropriate environmental criteria for subdivision development;*
- *to provide a comprehensive design approach for residential, rural, industrial and commercial subdivision;*

- *to provide a user friendly document with flexible performance-based criteria to guide development; and*
- *to provide for the ecologically sustainable subdivision of land.*

The DCP outlines a number of Performance Criteria with objectives that need to be met in the subdivision of land, along with Acceptable Solutions that may be examples of what is considered acceptable in complying with the Performance Criteria. The Acceptable Solutions are generally numerically based, and in this include issues relating to minimum allotment size, along with width and depths.

In relation to this subdivision, the following compliance table addresses the Acceptable Solutions that are considered to have relevance to this proposal.

**Table 4**  
**DCP No. 100 - Subdivision Code**

| <i>Issue</i>  | <i>Compliance</i>  | <i>Comments</i>   |
|---|--|---|
| <b>Lot Size</b><br><i>Minimum lot size of 500 m<sup>2</sup></i>   | ✓  | The application proposes allotments with the smallest being 557 m <sup>2</sup> . The proposal is entirely compliant with this requirement.  |
| <b>Dimensions</b> <ul style="list-style-type: none"> <li>• Rectangular non-corner lots<br/><i>Minimum width of 16 m and depth of 30 m.</i></li> <li>• Rectangular corner lots<br/><i>Square width of 20 m depth of 30 m</i></li> <li>• Irregular shaped lots<br/><i>Square width of 12 m</i><br/><i>Width at building line of 16 m</i><br/><i>Mean width 18 m</i><br/><i>Depth of 30 metres</i></li> <li>• Corner Splays<br/><i>4 metres</i></li> </ul> | <ul style="list-style-type: none"> <li>✓</li> <li>✓</li> <li>✓</li> <li>✓</li> </ul> | <p>Each of the proposed regular shaped allotments is of a reasonable size and shape to allow for the orderly development of a dwelling house.</p> <p>The corner allotments are of a reasonable size and shape to allow for the orderly development of a dwelling house.</p> <p>The proposal includes very few irregular shaped allotments, however where proposed, these are larger in area to ensure that reasonable building opportunities are provided.</p> <p>Each proposed intersection is provided with splays.</p> |
| <b>Energy efficiency</b><br>Allotments Design to achieve 5 star rating in accordance with Council's Energy Efficiency Policy  | ✓  | The proposed subdivision is designed such the vast majority of allotments are provided with either an east-west, or north-south orientation.  |

The proposal is consistent with the numerical requirements of DCP 100 – Subdivision Code.

### **5.5.2 DCP 71 – Medium Density Housing**

Whilst not strictly applying to this subdivision application, development of the larger allotment identified for medium density development will ultimately be subjected to the provisions of DCP 71 which applies to forms of medium density housing, and includes controls relating to density, car parking, minimum landscaped areas and open space, heights and privacy/amenity issues. Any future development would be required to consider the requirements of this DCP.

### **5.5.3 Area Specific Development Control Plans**

The site is not subject to any specific area based DCP adopted by Council however is the subject of Shoalhaven Planning Policy No. 1, the requirements of which are detailed below.

## **5.6 PLANNING POLICIES**

### **5.6.1 Shoalhaven Planning Policy No. 1**

The site is within the area affected by the provisions of Shoalhaven Planning Policy No. 1 – Development Guidelines for Certain Residential 2(c) zoned land – Milton-Ulladulla (SPP No. 1). The aims of SPP No. 1 are:

*“To provide for and co-ordinate the subdivision of certain land zoned Residential 2(c) in the Milton-Ulladulla area to ensure the following urban form principles:*

- *cohesive access networks;*
- *appropriate forms of development; and*
- *conserved scenic and ecological values and opportunities for recreation.”*

The objectives of SPP No. 1 are:

- *“Identify in-principle vehicular access alignments and hierarchies.*
- *Establish appropriate densities for residential development.*
- *Ensure provision of adequate and strategic public open space.*

This policy was adopted by Council on 23<sup>rd</sup> November 2004. The policy was exhibited as Draft Development Control Plan No. 110. In this format, SPP No. 1 was formulated and exhibited in accordance with the EP&A requirements relating to the preparation of Development Control Plans. However, when finally considering the policy, Shoalhaven City Council took the opportunity to adopt it as a Planning Policy, rather than as the

intended DCP. Therefore, whilst Planning Policy No.1 is not a DCP in the strict legal sense, to a large degree this is in name only as its formulation has been undertaken in accordance with the legislative requirements associated with a DCP.

SPP No. 1 was formulated to provide area specific requirements for the subdivision and development of land, including the subject site. As a result, and given the process followed in its preparation including community consultation, the requirements of this policy should be given considerable weight in the consideration and assessment of this application.

SPP No. 1 should therefore be read in conjunction with Council's Subdivision Code (DCP No.100). The Policy essentially supports DCP No. 100, and provides more refined area specific guidelines for this particular area, in conjunction with the more generic requirements of DCP 100.

SPP No. 1 applies to certain Residential 2(c) land within the urban expansion areas of Milton, Narrawallee, Mollymook, Ulladulla, Kings Point, Burrill Lake and Dolphin Point. The policy sets out aims, objectives and general urban form requirements for all locations. The document also sets out "*Area-Specific Urban Form Requirements*". These area specific requirements are categorised under criteria relating to Access Network, Residential Subdivision and Open Space Network. They are provided in a "Performance Criteria" and "Acceptable Solution" format.

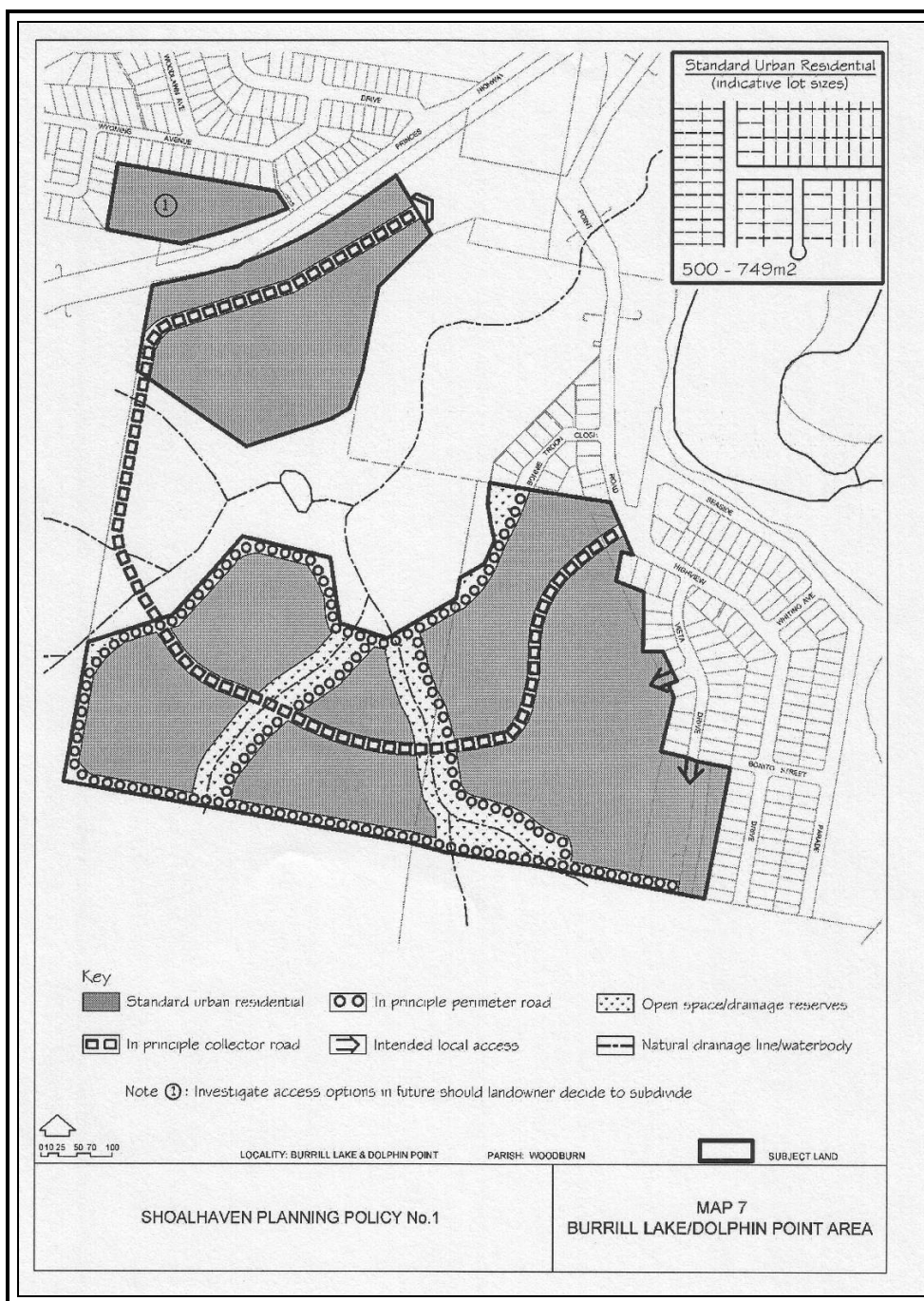
The subject site is identified as Area No. 7, which includes the subject site, the adjoining land immediately to the west of this site, and land on the opposite side of the Princes Highway. Map 7 which accompanies the SPP No. 1 is shown as **Figure 11**.

This plan shows the site being affected by the following:

- an in principle collector road intersecting with Dolphin Point Road and traversing the site to link with the land immediately to the west, and continuing through that site to ultimately connect with the Princes Highway;
- an open space/drainage reserve along an existing intermittent watercourse that traverses the site;
- an open space/drainage reserve on the lower portion of the property near Bonnie Troon Close; and
- the location of in principle perimeter roads along:
  - the southern boundary of the site linking the southern end of Vista Drive with the adjoining site to the west;
  - the eastern edge of the open space/drainage reserve; and

- a western extension of Bonnie Troon Close linking with the adjoining land to the west.

It is noted that the map accompanying SPP No. 1 does NOT identify the need for a specific/dedicated pedestrian/cycleway for the subject site, unlike some other areas that are also affected by this policy.



**Figure 11: Shoalhaven Planning Policy No. 1 (SPP No. 1)**

### **5.6.1.1 General Urban Form Requirements**

SPP No. 1 includes a number of general requirements relating to the access network, the form of residential subdivision/development, public open space, supply of water, supply of sewerage, and stormwater. The following addresses the general requirements of SPP No. 1.

#### 5.6.1.1.1 Access Network

SPP No. 1 seeks to provide an appropriate hierarchy of roads throughout new subdivision, co-ordinated accesses and pedestrian/cycleways. The locations of these, where applicable, are shown on the map accompanying the area specific requirements and are addressed below.

#### 5.6.1.1.2 Form of Residential Subdivision/Development

SPP No. 1 attempts to control character and the future urban structure of Milton/Ulladulla district by requiring certain allotment sizes. These are addressed in the site specific controls outlined below.

#### 5.6.1.1.3 Public Open Space

SPP No. 1 addresses the provision of open space within those areas to be developed for arrange of goals including linkages, performance of ecological functions, maintenance of visual integrity and buffer to the Princes Highway. These are addressed in the site specific requirements outlined below.

#### 5.6.1.1.4 Water Supply

SPP No. 1 seeks to ensure that the provision of water supply occurs in a planned fashion, where developers contribute to the provision of the service. Consultation has been held with Shoalhaven Water and their comments are included in **Annexure 9**.

#### 5.6.1.1.5 Sewerage

SPP No. 1 seeks to ensure that the provision of sewerage services occurs in a planned fashion, where developers contribute to the provision of the service. Consultation has been held with Shoalhaven Water and their comments are included in **Annexure 9**.

#### 5.6.1.1.6 Stormwater

SPP No. 1 seeks to ensure that drainage from urban development minimises stormwater run-off. Stormwater issues are addressed in **Annexure 6** which is a Water Cycle Management Strategy prepared by Storm Consulting which proposes a range of

measures aimed at minimising the impacts of stormwater. This is further addressed in Section 6.5 and 6.6.

**5.6.1.2 Area Specific Requirements**

In relation to the subject site, SPP No. 1 has specific requirements relating to:

5.6.1.2.1 Vehicular access

| Performance Criteria   | Acceptable Solutions   | Comment   |
|--|--|---|
| BD1. The street network forms an efficient and purposeful access system with a clear hierarchy. As far as practicable, the street network will disperse, rather than concentrate, traffic flows. | BD1a. Collector Roads and Perimeter Roads are provided in accordance with the in-principle alignments on Map 7.          | The proposed subdivision provides a clear hierarchy of roads including collector road servicing the site, and linking with the adjoining land to the west, along with a perimeter road along the southern boundary.   |
|  | BD1b. The 'dead-end' streets of Vista Drive and the unnamed road off Vista Drive are utilised as local access points.    | The layout utilises both Vista Drive and the un-named road reserve off Vista Drive as local access roads.   |
|  | BD1c. Multiple access points and routes are provided within the subject area (extensive cul-de-sac systems are avoided). | The subdivision utilises a variety of access points, including land to the west and Vista Drive as outlined above, as well as restricted access off Bonnie Troon Close, which will be given appropriate threshold treatment to minimise through traffic) and no cul-de-sacs are proposed. |
| BD2. Further access points on the Princes Highway are limited but not disregarded.   | BD2a. Options for appropriate access to Lot 1 DP 204535 are investigated.  | The subject site does not have direct frontage to the Highway and vehicular access is limited to the existing street network within Dolphin Point, and the network that ultimately results on land to the west of the site.   |

**5.6.1.2.2 Residential subdivision**

| Performance Criteria  | Acceptable Solutions   | Comment   |
|---|--|---|
| <p>BD3. Residential lot sizes are relevant to demand and context.</p> | <p>BD3a. Lots are subdivided to a size applicable to 'standard urban residential' in the relevant area identified on Map 7.</p> <p>BD3b. Between 10% and 20% of the total area of land identified as 'standard urban residential' on Map 7 will be subdivided to provide for 'medium density development' fronting the 'Collector Road' or road able to accommodate the traffic generated.</p> | <p>SPP No. 1 defines 'standard urban residential' as lots having areas of between 500 m<sup>2</sup> and 749 m<sup>2</sup>. The proposed lot sizes generally comply with this requirement. The average lot size is 697 m<sup>2</sup>, well within the range outlined in SPP No. 1.</p> <p>The application includes one larger allotment fronting the collector road which would be developed for medium density purposes. Whilst this does not account for between 10 &amp; 20% of the area, it does provide some opportunity for variety in housing offered at the site. The provision of significant quantities of higher density housing in this locality is not seen as desirable given the location of the property, which is in excess of 800 metres from the nearest neighbourhood shopping precinct.</p> <p>It is considered that the provision of standard residential subdivision would allow better integration with the established character of Dolphin Point which the site immediately adjoins.</p> <p>It is also noted that the DPRAG expressed concern with higher density development (refer Section 4.4).</p> |

**5.6.1.2.3 Open Space network**

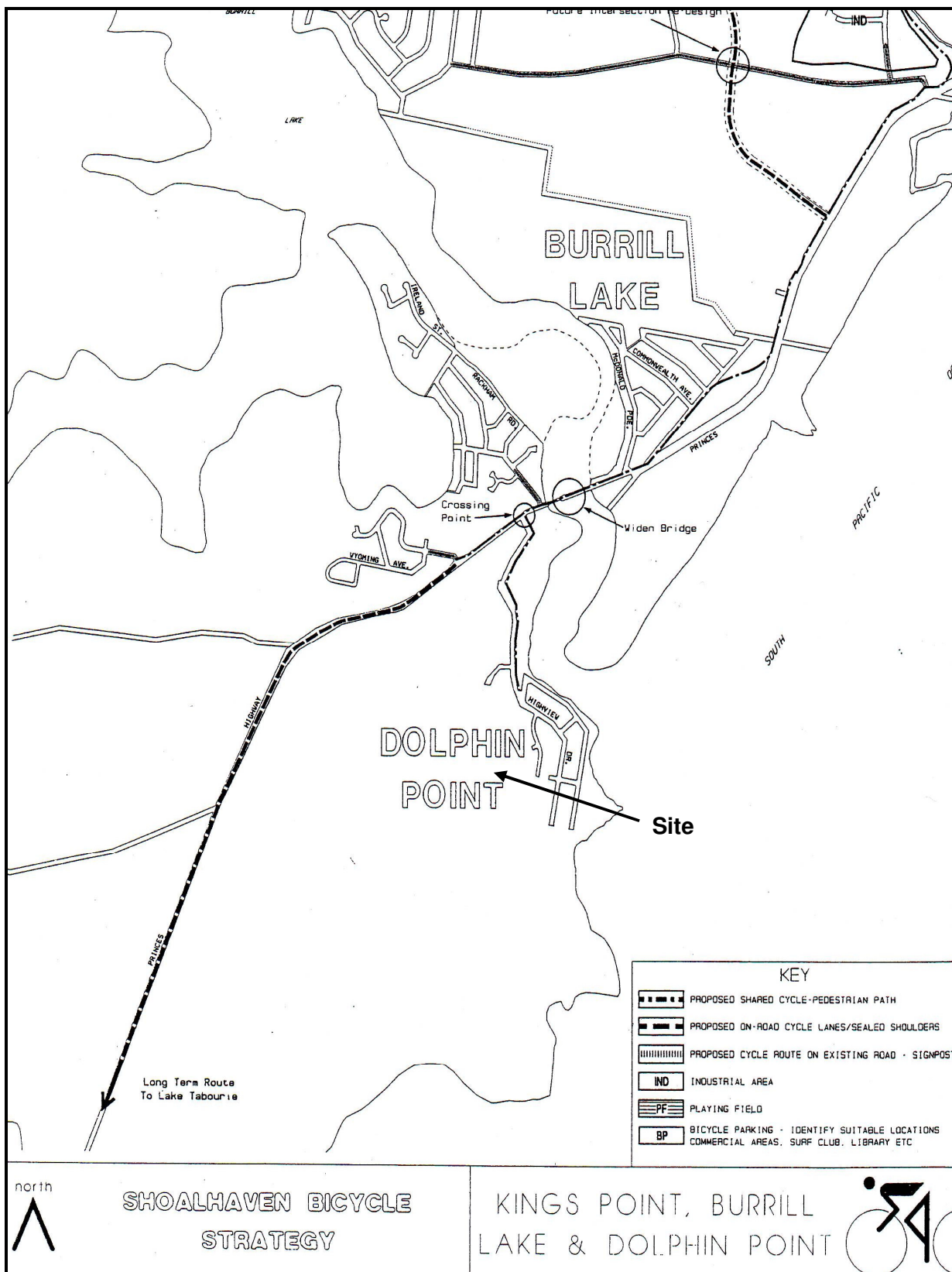
| Performance Criteria  | Acceptable Solutions  | Comment   |
|---|---|---|
| BD4. Public open space reflects topography, maintains the riparian integrity of natural drainage lines and provides open space linkages across and within the area. | BD4a. Drainage reserves are provided in accordance with the in-principle areas identified on Map 7. | The proposal provides for the provision of two open space areas sited near the south-western boundary of the site and adjacent the north-western boundary. This is entirely consistent with the areas shown on Map 7. |

**5.6.2 Shoalhaven Cycleway Strategy**

Shoalhaven City Council adopted a Cycleway Strategy on 16<sup>th</sup> December 1997 in order to recognise the needs of cyclists, to ensure that the Shoalhaven is a 'cycle friendly' city and to identify a realistic network of cycleways for implementation. A series of maps accompanies the strategy in order to identify appropriate routes for cycleways, and the nature of the facility, that is whether it is a stand alone pathway or a cycleway contained with the roadway.

In relation to Dolphin Point, a shared cycle-pedestrian pathway was identified running along the foreshore area of Dolphin Point Road to link with the Princes Highway for access to either north or south of the area. This does NOT affect the subject site. See **Figure 12** which is an extract from the strategy as it applies to Dolphin Point.

Despite this, the proposal does include the provision of a cycleway/pedestrian pathway along the collector road and also traversing the site in a generally east west fashion. Such will assist in providing good connectivity throughout the site for cyclists, as well as pedestrians.



**Figure 12: Extract from SCC Cycleway Strategy**

### **5.6.3 Policy to Control Building Height and Amenity in Residential Areas**

Shoalhaven City Council on 3 April 1990 adopted this policy which controls the height and floor space of residential dwellings in order to preserve residential amenity. This policy includes, amongst other things, requirements relating to overall height (8.5 metres) and a maximum of two storeys, building height plane (projected at 45° from a height of 5 metres) and a floor space ratio (0.6:1).

This policy has no specific implications for this subdivision proposal, however it is expected that future dwellings would be required to comply with the requirements of this policy.

### **5.6.4 Lake Burrill Estuary and Catchment Management Plan**

The property is within the area affected by the provisions of the Lake Burrill Estuary and Catchment Management Plan. The aim of the ECMP is to provide a *“comprehensive and integrated set of strategies to enhance, protect and conserve the natural resources of Lake Burrill and its catchments so as to ensure that its use is ecologically sustainable in the long term”*.

The Water Cycle Management Report prepared by Storm Consulting (**Annexure 6**) has considered the provisions of the ECMP and has concluded that *“average nutrient concentration levels are lower than the Lake Burrill Estuary guideline levels”*. Water quality is further discussed in Section 6.6 of this EA.

### **5.6.5 Section 94 Contributions Plan**

The subject site is included in Shoalhaven City Council's Section 94 Contributions Plan 1993. This plan seeks a monetary contribution to the provision of a range of open space (active and passive), community facilities, emergency services and road projects. In addition, the Contributions Plan identifies part of the subject site as suitable for use as open space. The subdivision sketch plan prepared by Allen Price & Associates (**Annexure 1**) shows the proposed open space areas and this accords with the requirements of Council's Contributions Plan. The Statement of Commitments outlines the commitment to contribute towards those facilities and services identified for the site.

## **5.7 CONCLUSION**

It is considered that there are no statutory impediments to the approval of the proposal.

## **6.0 ASSESSMENT**

The DoP has identified key issues in the consideration of the Preliminary Assessment as follows:

- a) Statutory and Other Requirements;
- b) Traffic Impacts;
- c) Urban Design, Visual Impact and Sustainability;
- d) Bushfire;
- e) Drainage, Hydrological Regime and Flooding;
- f) Impact on Waterways and Estuary Management;
- g) Water Quality, Supply and Sewerage;
- h) Impact on Threatened Species;
- i) Impact on Adjoining Barnunj State Conservation Area;
- j) Aboriginal Cultural Heritage Values; and
- k) Environmental Risk Analysis.

### **6.1 STATUTORY AND OTHER REQUIREMENTS**

Section 5 of this report provides a thorough assessment of the relevant statutory controls applying to the subdivision of the subject site. This assessment concluded that the proposal is generally consistent with the relevant State Environmental Planning Policies, Regional Environmental Plans, and Local Environmental Plans that apply.

That Section also considered non-statutory controls applying, including SPP No. 1 and the proposal is generally consistent with the requirements contained therein.

It is considered that there are no legal impediments to the approval of this major project.

### **6.2 TRAFFIC**

The subject site is located at Dolphin Point some 5 km south of Ulladulla. Accessibility to the area is restricted to the Princes Highway which provides main road access along the coast generally in a north-south direction. Dolphin Point is sited to the east of the Princes Highway and the local road network has altered in recent years to improve accessibility to the village. In this regard, access used to be available solely via Dolphin Point Road which intersected with the Highway approximately 120 metres south-west of the bridge across Lake Burrill. More recently, development located to the

north-west of the subject site has been accompanied by the construction of a roundabout approximately 350 m south-west of Dolphin Point Road, with new roads being constructed to link the roundabout with the existing village. Dolphin Point Road has been modified to provide 'left-in' and 'left-out' only at its intersection with the Highway.

The location of proposed roads within the site is affected by the provisions of SPP No. 1 which guides the location of perimeter roads, collector roads and local access roads. This requires the following:

- a perimeter road running along the southern boundary of the site accessed via the continuation of Vista Drive and continued to link with the adjoining lands to the west;
- local access via an existing un-named road reserve to the west of Vista Drive;
- a collector road accessed by Dolphin Point Drive/Highview Drive and continued to link with the adjoining lands to the west;
- perimeter road along the north-western portion of the site formed by the continuation of Bonnie Troon Close and continued to link with the adjoining lands to the west; and
- a perimeter road to link the northern and southern perimeter roads.

In addition, the location of roads is affected by the existing subdivision pattern within Dolphin Point and that proposed by the adjoining subdivision to the west.

The subdivision layout that has been proposed generally accords with these considerations and constraints as follows:

- provision of a perimeter road along the southern boundary and adjoining retained vegetation within the site;
- provision of a collector road through the site linking the Highview Drive with the adjoining property to the west, giving appropriate vehicular access, and importantly alternative emergency egress, which is critical during bushfire events; and
- provision of a permeable layout utilising all possible existing roads and road reserves.

It has not been possible to layout the development of the site entirely in keeping with that proposed in SPP No. 1 due to other constraints which have emerged, however the general principles have been achieved.

The proposed layout is suitable for the following reasons:

- a clear and distinct hierarchy of roads will be apparent for motorists;

- adequate consideration has been given to the provision of perimeter roads to buffer environmentally sensitive areas and bushfire threats;
- the layout is very permeable for pedestrians to filter through the site along roads, drainage corridors and the like and not concentrate along specific routes; and
- the layout adequately considers existing residential amenity, particularly along Bonnie Troon Close where a quiet cul-de-sac environment has been enjoyed for many years.

Accompanying this report as **Annexure 3** is a Transport Report, prepared by Colston Budd Hunt Kafes Pty Ltd (CBHK) which has specifically addressed the Environmental Assessment Requirements including:

- Council and RTA traffic codes.
- Intersection modelling including an assessment of AM and PM peaks, holiday peaks.
- 10 year projections; and
- ameliorative measures.

The following section of this report is based on the findings of the CBHK report.

## **6.2.1 Existing Traffic Conditions**

### **6.2.1.1 Existing Traffic Volumes**

In order to obtain an indication of the existing level of service of the road network adjoining the subject site, CBHK undertook a survey of the Princes Highway, Dolphin Point Road, Highview Drive, Link Road, Seaside Parade, Vista Drive and Bonnie Troon Close. This found that the Princes Highway carries some 500 to 800 vehicles per hour, two way, during the morning and afternoon peaks. Flows along all other roads were much lower and generally less than 100 vehicles per hour two way.

### **6.2.1.2 Current Intersection Operation**

In order to estimate the existing efficiency of the surrounding local road network, a SIDRA analysis was undertaken by CBHK of all intersections surveyed. SIDRA is an analytical tool to evaluate alternative intersection designs in terms of capacity, level of service, a wide range of performance measures including delay, queue length and the like. A useful measure is the average delay per vehicle which results in the allocation of a level of service (LOS), ranging from A to F with A representing a good LOS, and F indicating an unsatisfactory LOS that requires additional capacity.

Based upon the above modelling, CBHK indicates that:

- the operation of the roundabout intersection of the Princes Highway and Wallaroy Drive/Link Road is operating at Level A/B, which is good;
- the intersection of the Princes Highway and Dolphin Point Road is operating at LOS B, which is good;
- The intersection of Dolphin Point Road with Link Road and Seaside Parade and of Highview Drive with Vista Drive are operating at A/B, which is a good LOS; and
- with consideration given to the 50% increase in traffic flows factored in to account for holiday traffic, the operation of the intersection of the Princes Highway and Wallaroy Drive/Link Road is operating at Level A/B, a good LOS.

#### **6.2.1.3 Amenity**

In addition to the physical capacity of the local road network capacity, the Roads and Traffic Authority “*Guide to Traffic Generating Developments*” has outlined the acceptable environmental performance of local streets and suggests a maximum flow of 200 vehicles per hour is an acceptable environmental goal. The existing traffic flows are well below that as outlined in Table 2.1 of the CBHK report.

#### **6.2.2 Proposed Road Network**

The proposal includes the following:

- Collector road linking land to the west with the existing road network at Highview Drive.
- Perimeter road along the southern boundary and adjoining retained vegetation (EEC).
- Local roads intersecting with proposed collector road and existing streets.
- Continuation of Bonnie Troon Close with a raised pavement; and
- series of cycleway and pathways to encourage active transport options.

#### **6.2.3 Projected Traffic Conditions**

##### **6.2.3.1 Traffic Generation**

The Roads & Traffic Authority’s “*Guide to Traffic Generating Developments*” publication has illustrated trip generation rates for a variety of uses and activities based on surveys of existing developments. In relation to residential subdivisions, the RTA indicates that trip generation equates to 8.5 trips per allotment per day. Council’s Subdivision Code

DCP 100 indicates a higher rate of 10 trips per allotment. For the purposes of the study, CBHK have utilised the higher Council rates.

Based upon the above guidelines, CBHK estimates that the proposal will generate 150, two way trips during morning and afternoon peaks. Of these total trips, 70% have been assigned to outbound traffic in the mornings, and 70% inbound in the afternoons.

In order to gauge the impact of the traffic projected to be generated by the proposed development on the local road network CBHK assigned the additional traffic to the road network. This has been determined by CBHK by based on counts of existing traffic and likely traffic routes once the subdivision is developed.

### **6.2.3.2 Projected Intersection Performance**

Utilising the SIDRA analysis, the study of CBHK found that:

- the operation of the roundabout intersection of the Princes Highway with Wallaroy Drive/Link Road will continue to operate at Level A/B, which is good;
- the intersection of Princes Highway and Dolphin Point Road will operate at Level A/B, which is good;
- the intersection of Dolphin Point Road with Link Road and Seaside Parade and of Highview Drive with Vista Drive will continue to operate at Level A/B, which is good;
- with consideration to growth over 10 year period, the intersection of Princes Highway and Link Road will operate at Level B, which is good;
- with consideration to holiday traffic and additional traffic from the development, the intersection of Princes Highway and Link Road will operate at Level B, which is good;
- the additional traffic from the development will not cause traffic flows beyond the environmental amenity thresholds; and
- during the construction of residential development, construction traffic is expected to peak at 200 trips per day, which based on an eight hour day, would equate to an average of 25 two way trips per hour.

### **6.2.4 Traffic Conclusion and Recommendations**

According to the findings of CBHK, the proposed subdivision will not result in any decrease in the performance of intersection in the local road network.

This study would indicate therefore that the intersections are currently performing satisfactorily, and that they will continue to do so even accounting for additional traffic

generated by this development, general growth in traffic volumes, and increased traffic volumes expected during holiday periods. As a result, no work on existing intersections would be necessary. Furthermore, no adverse impacts result on the environmental performance of existing or proposed local roads and as such, no ameliorative measures are required.

The Transport Report undertaken by CBHK makes the following conclusions with respect to this proposal at Section 3.32:

- *the proposed residential subdivision comprises 142 lots;*
- *vehicular access to the proposed subdivision will be via Dolphin Point Rd, Vista Dr and Bonnie Troon Close;*
- *the proposed access arrangements are consistent with Planning Policy No 1 and DCP 52 and are considered appropriate;*
- *internal roads will be provided in accordance with the principles in Council's Subdivision Code and AMCORD;*
- *the proposed development would have a peak period traffic generation of some 150 vehicles per hour two-way during peak hours; and*
- *the road network will be able to cater for traffic from the approved development to the west, the proposed development, other proposed development to the west, the closure of Dolphin Point Road, future growth on Princes Highway and traffic flows during holiday periods.*

The Transport Report addresses the matters raised in the Director-General's Environmental Assessment Requirements and the recommendations of this Report are supported by this Environmental Assessment.

### **6.3 URBAN DESIGN, VISUAL IMPACT AND SUSTAINABILITY**

Dolphin Point is a coastal village with development generally limited to detached dwellings, both single and two storey in height, and a caravan park. Existing development varies considerably from modest fibro/lightweight single storey cottages, to large two storey masonry dwellings, particularly close to the coast where water views are available. Dolphin Point appears to have been developed over a number of years, with more recent subdivisions involving more contemporary dwelling design and construction, particularly within Bonnie Troon Close, co-existing amongst older established dwellings.

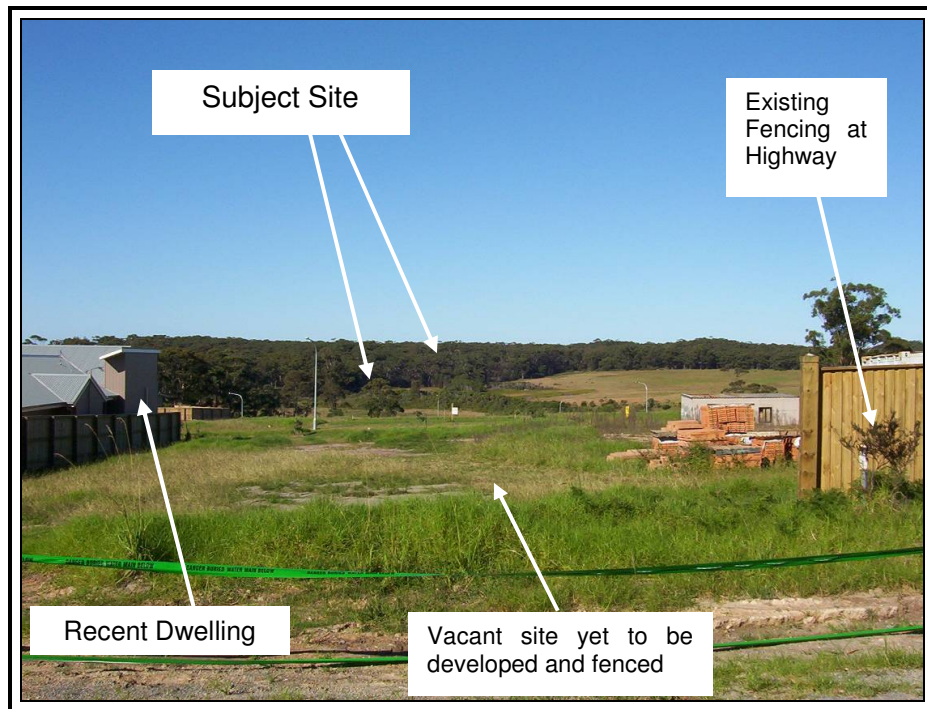
Although Dolphin Point is provided with kerb and gutter along with formalised drainage, the village generally has an informal quality, principally due to its close proximity to Lake Burrill and the coast. Evidence of this informality exists in the lack of fencing evident

forward of established building lines, little formal landscaping for most properties and a lack of consistency in street plantings.

The following series of plates show the site and its relationship with the coast, the existing village and surrounding areas. **Figure 13** shows the location where the plates were taken.

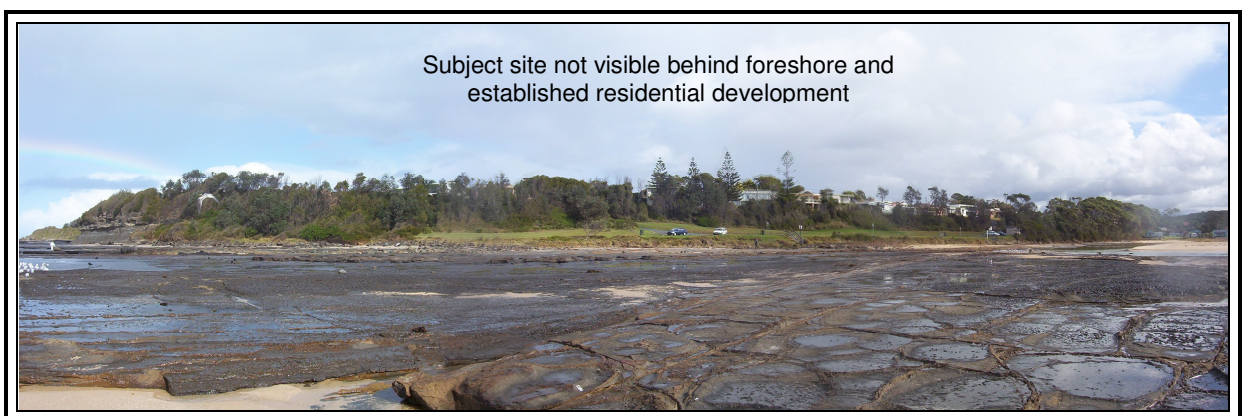


**Figure 13 – Location of Plates in Visual Analysis**



**Plate 9 - View of site and surrounds from Princes Highway**

**Plate 9** demonstrates that the site is not prominent from the Princes Highway, and ultimately is unlikely to be visible from the Highway at all due to the development of other lands nearer the Highway. It must be noted that the subject site is only visible over lands that have been subdivided and are available for development. This plate depicts development which is expected to be fairly representative of properties sited closer to the Highway.



**Plate 10: View towards Dolphin Point from rock shelf  
(southern side of entry to Lake Burrill).**

**Plate 10** demonstrates that from this foreshore area, the subject site is not visible being located behind existing foreshore vegetation and established residences.



**Plate 11: View looking towards subject site from foreshore.**

Subject site is not visible due to the topography and foreshore vegetation in **Plate 11**.



**Plate 12: View along Seaside Parade.**

**Plate 12** shows established development along Seaside Parade which forms the eastern edge of the village, overlooking foreshore reserves and the ocean. Such residences screen the subject site from foreshore areas.



**Plate 13: View of Dolphin Point from northern shores of Lake Burrill**

**Plate 13** shows the developed nature of Dolphin Point behind foreshore reserves. The subject land itself is not visible, however tree canopies do rise up above the roofline of established dwellings.

It is considered that the above photographic analysis demonstrates that:

- the subject property is sited further away from the actual coastline and foreshores of Lake Burrill than the established village and as such, its visual relationship with the coast is not as strong as most existing properties;
- the property is separated from the Princes Highway by development associated with recent village expansion; and
- the site is not prominent.

Having regard to sustainability principles and the development, the following points are made:

- the land is zoned Residential 2(c) under Shoalhaven Local Environmental Plan and has been the subject of a more detailed planning study culminating in the preparation of SPP No. 1. The proposal is generally consistent with the requirements of SPP No. 1;
- provision will be made for adequate infrastructure to allow its residential development;

- the site is provided with adequate road transport and the development will not adversely impact on the performance of the Princes Highway;
- the development will positively impact on the provision of housing choice;
- the site is well located in close proximity to the Ulladulla township, identified in the Draft South Coast Regional Strategy as providing regionally significant employment lands and infrastructure, to be protected and added to;
- Adequately avoids natural hazards, and provides alternative evacuation route in the event of bushfire.
- capacity has been made in Shoalhaven City Council's water and sewer infrastructure planning for the development of the site;
- avoids the development of areas identified as containing resources, such as prime crop and pasture lands or mineral resources; and
- properly considers Aboriginal cultural heritage.

Having regard to those matters specifically raised in the Director-General Environmental Assessment Requirements, the following comments are made.

### **6.3.1 Coastal Design Guidelines and SEPP 71**

The project has been assessed against the requirements of the Coastal Design Guidelines and SEPP 71 – Coastal Protection in Section 5.2.14 above. The proposal is considered to be consistent with the requirements of the Coastal Design Guidelines and SEPP 71.

### **6.3.2 SEPP 65**

The provisions of SEPP 65 – Design Quality of Residential Flat Development applies to the development relating to:

- *the erection of a new residential flat building, and*
- *the substantial redevelopment or the substantial refurbishment of an existing residential flat building, and*
- *the conversion of an existing building to a residential flat building.*

This subdivision proposal does not incorporate residential flat development and as such, the provisions of SEPP 65 have no implications in this instance.

### **6.3.3 Aesthetics, Built form**

The subdivision does not include the construction of buildings, however it is clear that ultimately the allotments to be created will be developed with residential dwellings. The further development of the lots will be controlled by a range of existing policies currently adopted by Shoalhaven City Council. In addition to this, it is intended to further guide development through the application of the Design Guidelines which form **Annexure 2** to this EA. This document contains the following controls:

- encourage the use of appropriate light weight materials and discourage brick and concrete structures, particularly those replicating past periods (eg. Federation);
- ensure compliance with BASIX principles regarding reduced water and energy consumption;
- garages that are setback an additional 1 metre behind the front façade to reduce their visual dominance on dwelling design;
- encourage the use of a mix of materials to reduce apparent height and bulk.
- use of gabled roofs to create consistency in roofscape, thereby unifying development;
- common letterbox design;
- all designs to include eaves;
- consistent fencing material and colour (Colorbond “Grey Ridge”); and
- adoption of a scheme with local nurseries to encourage the prompt landscaping of sites, use of consistent landscaping and planting of species that will grow to a suitable height in order to soften development.

This will further enhance the visual appeal of the overall development by ensuring compatibility with the established character.

### **6.3.4 Energy and Water Efficiency**

Having regard to the sustainability of the development, as noted above, all future development will be subject to the water and energy efficiency targets established in the BASIX SEPP. This will see the use of water tanks to enable the collection and reuse of roof water, appropriate fittings and fixtures to meet the relevant targets applicable at the time of development, as well as the use of appropriate building materials to ensure energy efficient construction.

In addition, the proposed allotments are provided with a reasonable orientation in order to maximise solar access benefit.

### **6.3.5 Safer by Design**

The proposal adequately considers safer by design principles in the following ways:

- adequate street lighting will be provided;
- the proposal considers the appropriate siting and design of public open space areas by ensuring that future dwellings will overlook these areas providing passive surveillance opportunities;
- appropriate space management by clearly defining and delineating public open space from private space, with unambiguous separation provided by way of public roads;
- provision of pedestrian pathways to channelise pedestrian movements in the locality; and
- appropriate siting and design of pathways which are straight with reasonable grades that will provide unrestricted view from end to end. The pathways increase connectivity between the site and surrounding areas, including future desired destination points and are sited immediately adjoining dwellings, where casual surveillance is available. Further, the permeable nature of the proposed road network is such that the pathways do not provide access to areas that can not be followed by vehicles, and therefore, a low-risk escape option is not provided for criminal or unruly behaviour.

### **6.3.6 Relationship to Surrounding Areas**

The subject site is surrounded by the established village of Dolphin Point along its northern and eastern boundaries, the Barnunj SCA along its southern boundary and future residential development along the western boundary.

This development will have a suitable relationship to surrounding areas as:

- design guidelines are proposed to control building materials and ensure consistency in design which, when used in conjunction with Council's Policy to Control Height and Amenity, will ensure that further buildings will be appropriate in this coastal location;
- future development will be the subject to the policy requirements of Shoalhaven City Council that has overseen the development of the established village; and

- the subject site is located below the Barnunj SCA and the layout proposes a sealed road along the edge where possible. This is considered an appropriate manner in which to treat this boundary, minimising private properties that adjoin the SCA.

It is noted having regard to the development of the adjoining land to the west (proposed under MP 05-0016) that no special controls are proposed to mitigate visual impact, with the future development being controlled by Shoalhaven City Council via its Policy to Control Building Height and Amenity. This will see development restricted to an overall height of 8.5 metres and a maximum of two storeys, a floor space ratio of 0.6:1, along with reasonable setbacks established by implementing the building height plane. This will not be incompatible with what is being proposed in this application.

### **6.3.7 Visual Impacts from Public Locations**

The site is visible from the following public locations:

- surrounding public road network;
- Barnunj SCA; and
- the Princes Highway to the north where distant views are available over adjoining lands.

**Annexure 11** shows the site from various vantage points in the vicinity of the property.

In relation to the views available from the Princes Highway, the visual impact is considered reasonable given that:

- the views that are available are distant, with the subject site being at least 450 metres in a direct line from this major thoroughfare;
- development located close to the Princes Highway screens the subject site such that ultimately it will NOT be visible; and
- the site is provided with a vegetated backdrop in the form of the Barnunj SCA which will assist in mitigating the visual impact associated with development in this location. In this regard, the site is not on a prominent ridgeline such that development will rise above the landform.

In relation to the actual coastline, the nature of the topography screens much of the Dolphin Point urban area from the foreshore and Lake Burrill. In addition, the developed nature of Dolphin Point has resulted in the construction of urban development adjoining foreshores with the subject site being located further away from these more visually sensitive areas, as well as being separated by the existing development. In relation to

the surrounding public road network, it is considered that this subdivision is unlikely to have any greater impacts than those already incurred in the locality due to the extent of existing residential development.

The southern edge of the site adjoins the Barnunj SCA where greater care is considered necessary in order that the prominence of development is reduced when viewed from within this natural area. Whilst it is considered that the controls that are adopted by Council would adequately address the overall bulk, scale and height of development, buildings that are finished in lighter or bright colours could have a detrimental visual impact as they would make the built form more prominent from the Barnunj SCA, standing out from a natural setting. Therefore, it is considered desirable to have buildings finished in materials and colours that would blend with the overriding natural colours that prevail within the Barnunj SCA and other areas containing retained vegetation. It is considered overly restrictive and unnecessary to specify a precise colour palette within which future owners could select finishes, and a more general requirement to finish development in colours and materials that blend with the adjoining bushland environment would be appropriate. This has been successfully applied by Shoalhaven City Council in areas having special scenic qualities in the past. It is intended therefore that this be done by way of restrictive covenant under Section 88B on the title of those allotments identified above.

### **6.3.8 Public Precinct/Open Space and Recreational Areas**

The development is provided with two distinct open space areas, in the form of a 1.596 ha reserve in the vicinity of the south-western corner of the site, and a 0.9 ha area in the north-western corner of the site. These spaces, having regard to their siting and size, are consistent with the provisions of Shoalhaven City Council's SPP No. 1.

In addition, it is considered that these areas make for the efficient use of land and will result in the creation of interesting open space to complement that already provided in the locality.

### **6.3.9 Pedestrian and Bicycle Movements**

Shoalhaven City Council has adopted a Bicycle Strategy at its meeting of 16<sup>th</sup> December 1997 which examined the entire City and identified cycle routes for further implementation. In relation to Dolphin Point, the Strategy has specified the following:

- an "on road cycle lane" along the Princes Highway to the south from the roundabout with Wallaroy Drive;

- a “shared cycle-pedestrian path” along the Princes Highway north of the roundabout with Wallaroy Drive; and
- a “shared cycle-pedestrian path” along the northern edge of Dolphin Point Road from the Princes Highway to its junction with Seaside Avenue.

The Bicycle Strategy does not identify the subject site for the provision of dedicated cycleway paths.

Despite this, the proposal includes:

- A combined pedestrian path/cycleway along the collector road, and traversing the site generally in an east-west fashion.
- Pedestrian pathways along Vista Drive and the perimeter road, which continues along to abut the retained EEC where it then joins up with the pedestrian path/cycle way outlined above; and
- dedicated pedestrian pathways along road numbered 2 and 7 to provide pedestrian linkages with the desired destination points.

It is considered that the proposal provides good opportunities for both pedestrians and cyclists to utilise the site and reduce car dependency for local trips.

#### **6.3.10 Public Access to the Coast**

Public accessibility to the coastline is not affected by this proposal given the location of the site away from the actual coast and the fact that existing urban development is located between this site and the coastline.

The subdivision does facilitate good public accessibility due to the relatively permeable layout. Those lands further to the north and west will have improved access due to the provision of public open space and roads through the site allowing high levels of accessibility.

A pedestrian path/cycleway, concrete in construction, is proposed to be provided to allow more convenient east-west access through the site providing improved accessibility to desired destinations.

#### **6.3.11 Amelioration**

The site has been zoned for the provision of residential development for in excess of 30 years, and consequently, urban development must be anticipated on the site. Along with development comes a certain level of visual impact. Despite this, it is considered that the proposal does not result in an unsatisfactory level of visual impact given the

siting of the property away from the actual coastline, separated by the existing village. In relation to public locations, the site is not considered to be prominent as is demonstrated by plates in Section 6.3. As a result, it is considered that significant ameliorative measures are unnecessary in this instance. Notwithstanding this, ameliorative measures are proposed in the form of:

- Design Guidelines (**Annexure 2**) to further control the built form; and
- Section 88B Restriction requiring use of darker toned colours along those lots immediately opposite the Barnunj SCA and retained EEC vegetation.

Such measures will be in addition to those policies already adopted by Shoalhaven City Council and which would be expected to be implemented in any further development of the proposed lots.

#### **6.4 BUSHFIRE**

The site is the subject of bushfire risk, particularly from the south (Barnunj SCA) where areas of bushland and undeveloped land exist. Further, to the west a threat exists due to limited regrowth vegetation. The subdivision layout has been considerate of this issue by providing a perimeter road along the southern boundary, and edging areas of retained vegetation with public roads, which will provide defendable space. In addition, the subdivision will provide an alternative egress for the adjoining land to the west allowing escape from that site in an easterly direction.

Accompanying this Environmental Assessment as **Annexure 5** is a Bushfire Protection Assessment prepared by Bushfire and Environmental Services that considers the bushfire threat, applies the provisions of *Planning for Bushfire Protection 2006* (PBP) and makes recommendations for the implementation of appropriate mitigation measures. Such report has considered and addressed the specific requirements outlined in the DG's EA Requirements.

This report has advised that:

- the bushfire risk to the property is moderate due to the extent of Group 1 forest to the south of the site, and the presence of bushland regeneration along the western boundary;
- bushfire risk is mitigated by extent of existing development, the clearing proposed to be undertaken on the site, and the further development proposed in the locality to the north and north-west; and

- the proposed development will reduce bushfire risk to existing residential development which is currently protected by adequate asset protection zones, perimeter access or appropriate construction standards.

#### **6.4.1 Mitigation Measures**

The following mitigation measures have been proposed by BES, which in conjunction with the proposed layout, will provide reasonable protection:

- The provision of APZ at a distance of 20 m to the southern perimeter of the site.
- The provision of APZ to at a distance of 20 m to the southern public reserve.
- The provision of a 15 m APZ along the western boundary of the site.
- The provision of a 25 m APZ adjacent to the northern public reserve.
- The APZ is to be managed as an Inner Protection Area (IPA) in accordance with the following specifications:
  - existing larger trees (at least 150 mm in diameter measured at chest height) will remain within the APZ provided that:
    - no part of their crown occurs within 5 m of any building (significant habitat trees can remain 2 m out from the building line);
    - canopies are discontinuous, ie. canopies are separated by at least 2 m;
    - they are smooth barked species or, if rough barked, are maintained free of hanging bark and other ladder fuels; and
    - low branches holding fine fuel (ie. leaves and twigs of < 6 mm in diameter) are pruned to 2 m from the ground;
  - smaller trees (ie. less than 150 mm in diameter), shrubs, fallen trees and tree-limbs and stumps are to be removed and continually suppressed;
  - any landscaping or plantings should preferably be local endemic mesic species or other low flammability species. The presence of a few shrubs, vegetable gardens or fruit trees is also acceptable provided that all plantings and residual vegetation are well spread out, do not form a contiguous pathway to the dwelling and do not constitute more than 5% of the total APZ area;
  - a minimal ground fuel is to be maintained to include either mown grass, paving, concrete, bare ground, or less than 3 tonnes per hectare of fine fuel (ie. material of < 6 mm in diameter);

- any structures (eg. fences, garden sheds, decks, pergolas etc) within the APZ are to be non-combustible (ie. non-combustible under Australian Standard 1530.1 and not deemed combustible pursuant to clause C1.12 of volume 1 of the Building Code of Australia);
- any structures storing combustible materials such as firewood (e.g. sheds) must be sealed to prevent entry of burning debris.
- Preparation of a Vegetation Management Plan for the proposed public/drainage reserves.
- A variety of Construction Standards contingent on the separation provided to unmanaged bushland ranging from no special requirements, up to Level 3 where lots are in the closest proximity.
- Suitable access, including perimeter roads and egress for adjoining lands to the west.
- Provision of an underground power supply.
- Reticulated water supply with suitably located hydrants; and
- appropriate staging of the development and clearing of interim APZs.

The mitigation measures are, where relevant, included on the subdivision design prepared by APA (**Annexure 1**).

#### **6.4.2 Conclusion**

The BES Report has concluded that:

*“...the recommendations within this report will provide an appropriate standard of bushfire protection which is at a standard consistent with current guidelines for development within bushfire prone lands.”*

Based on the assessment undertaken by Bushfire and Environmental Services, it is considered that the threat to the proposed subdivision by bushfire can be properly mitigated through implementation of the recommendations in the Bushfire Assessment Report, which are also supported by this Environmental Assessment Report.

### **6.5 DRAINAGE, HYDROLOGICAL REGIME AND FLOODING**

The subject property is sited within the catchment of Lake Burrill, and has a relatively simple topography with a high point located in the south-eastern corner, which radiates out in all directions. A broad drainage depression is located within the south-western corner of the site which drains through the adjoining site to the north and ultimately Lake

Burrill via low lying lands. An additional broad drainage depression is sited in the north-western corner of the site which also drains to the north, and ultimately joins the aforementioned watercourse outside of the site in adjoining lands.

Storm Consulting were engaged to consider drainage issues, flood levels, and issues associated with changes in the hydrologic regime, and their report titled *Water Cycle Management* is provided as **Annexure 6**. The following is based on information contained within the Storm report.

### **6.5.1 Drainage**

Stormwater drainage is to be collected and piped prior to discharge in the low-lying portions of the site via water quality control ponds. This will include diverting large stormwater flows around the sensitive areas of the site, including the EEC in the south-western corner of the site. According to Storm Consulting, this *“will protect the EEC from changes to hydrology and nutrient load”*.

Such will be undertaken by a combination of piped drainage, stilling basins, rock-lined channels, bio-filtration trenches and constructed wetlands. Further detailed plans would be required at construction stage.

### **6.5.2 Hydrologic Regime**

Storm Consulting utilised the Model for Stormwater Urban Improvement Conceptualisation (MUSIC) to analyse the development in order to determine the impact of the development from pre-development to post-development having regard to average annual flows and mean flows. Mitigation measures are proposed in the form of Water Sensitive Urban Design (WSUD) principles including rainwater tanks, rain gardens, and constructed wetlands.

By reference to Table 4.7 in the Storm Consulting report, MUSIC modelling that has been undertaken has revealed that:

- the post-development average flows will be 12% higher than the pre-development average flows;
- total annual flows are 13% higher than pre-development flows;
- 90%ile post-development flows will be 20% lower than pre-development flows;
- maximum post-development flows will be 3% higher than predevelopment levels;
- runoff impact is mitigated by the location of drainage to a wetland area.

According to Storm, the impact of development on the hydrologic regime is important for two purposes. Firstly, for ecological reasons to minimise impacts on flora and fauna, and secondly, to consider impacts on flooding. Ecological impacts are generally affected by the more frequent rainfall events, whilst flooding impacts occur with the less frequent higher intensity storm events. According to Storm, the modelling demonstrates that the impacts of this development occur at the 94%ile and above. These are the less frequent more intense events that are associated with potential flood impacts, rather than the more frequent storms. Having regard to the impacts on flooding, Storm indicate that the *“impact of higher storm events on flooding is not significant. The proposed development site is located close to the Burrill Lake Estuary, and flood levels from this estuary abut the development. Changes to peak flows on the site will have no significant impact on flood levels in the receiving waters, as critical flood levels are determined by flood levels in Burrill Lake, not runoff from the catchment”*. Having regard to the ecological considerations of changes to the hydrologic regime, the assessment by Storm demonstrates that no significant impacts will occur as drainage of the more frequent, less intense storm events, appropriately mimic the pre-development scenario.

Based on the assessment undertaken by Storm, it is considered that changes to the hydrologic regime are properly controlled in the design of the development and the mitigation measures that have been proposed.

### **6.5.3 Flooding**

Shoalhaven City Council have advised that the 1% AEP is 2.6 m AHD, whilst the Flood Planning Level is 3.1 m AHD, thus providing a 500 mm freeboard above the 1% AEP.

In order to fully consider the impacts of flooding, Storm Consulting modelled the development using HEC RAS.

The proposed development, including allotments and roads, are sited above the 3.1 m AHD level and as such, are not affected by direct flooding from the Lake Burrill estuary.

Storm Consulting consider that flooding from the south-western catchment is confined outside of the development footprint, however some minor flooding may be experienced in the south-western corner of the site. This, according to Storm Consulting, can be mitigated through undertaking minor earthworks (filling). Storm Consulting considers that this could be readily addressed when further detailed survey work is undertaken. This detailed analysis would be undertaken in the preparation of detailed construction plans.

Based on the analysis undertaken by Storm, it is considered that flooding issues do not present a significant constraint to the development.

## **6.6 IMPACT ON WATERWAYS AND ESTUARY MANAGEMENT**

The property drains to Lake Burrill via low lands to the north west of the site. In preparing the Water Cycle Management Report (**Annexure 6**), Storm Consulting also considered the impacts of the development on the quality of water discharged from the site, and the impacts such will have on downstream properties and the quality of receiving waters. The following is based on the information contained within the Storm Consulting report.

In preparing the report, Storm Consulting have given consideration to the requirements of SPP No. 1, the Lake Burrill Estuary and Catchment Management Plan (LBECMP), EPA publication “*Managing Urban Stormwater Treatment Techniques*” and Landcom’s “*Managing Urban Stormwater, Soils and Construction*” (the Blue Book).

The LBECMP includes recommendations for water quality guidelines as follows:

- *Nitrogen and phosphorous concentrations should remain below .5 and .05 mg/ml respectively.*
- *Turbidity should remain in the very low range.*
- *pH should not fall below 6.5; and*
- *waters should be free of floating debris and litter.*

Storm Consulting has divided the influencing drainage into three separate catchments and have analysed the impacts of the development using MUSIC. The assessment has included modelling the impacts of the development on total suspended solids, total phosphorous and total nitrogen.

Storm Consulting has recommended a number of measures aimed at minimising the impacts of the subdivision, and avoiding impact on the EEC which, as has been outlined above, is proposed for retention. Works proposed are outlined in Appendix A and B of the Storm Consulting report and include the provision of:

- stilling basins;
- bio-retention filters;
- constructed wetland;
- rock-lined channels;

- rainwater tanks;
- on-site detention within every allotment, to ensure pre-development flows off the site are not exceeded; and
- gross pollutant trap to allow the collection of pollutants and coarse sediment.

According to the modelling undertaken, shown in Table 4.1 to 4.6 inclusive of the Storm Consulting Report, there is a substantial decrease in suspended solids, total phosphorus and total nitrogen that will meet the best practice guidelines including the Performance Criteria outlined in DCP 100 and the LBECMP. Storm Consulting conclude that:

*“Model results show that the proposed treatment systems in each catchment meet the benchmark of 80% removal of suspended solids load and 45% removal of nutrient (Nitrogen and Phosphorus) load. Average concentrations of nutrients from each catchment are below the ANZECC guideline water quality trigger values recommended for the Lake Burrill Estuary. “*

For the entire site and other lands within Dolphin Point that drain through the subject site, after discharge through the final wetland, water quality will meet the Best Management Practice guidelines for 80% reduction in total suspended solids, and 45% reduction in total phosphorous and total nitrogen loads.

The infrastructure proposed by Storm Consulting is entirely consistent with the Performance Criteria contained in DCP 100.

Based on the findings of the Storm Consulting report, it is considered that the proposal provides adequate ameliorative measures to ensure that impacts within Lake Burrill are acceptable, as are the measures proposed to avoid impacts on the retained EEC.

The Storm Consulting report also addresses the assessment requirements contained within the Director-General’s Environmental Assessment Requirements. The ameliorative measures recommended in the Storm Consulting report are supported by this Environmental Assessment Report.

## **6.7 WATER SUPPLY AND SEWERAGE**

### **6.7.1 Water Infrastructure**

The locality of Dolphin Point is provided with a reticulated water supply. According to Shoalhaven Water, the site can be serviced subject to the extension of the water mains. These works are scheduled for completion by Shoalhaven Water in 2011/12 however this could be expedited if necessary subject to funding by developer’s contributions or works in accordance with the Development Servicing Plan (DSP).

Based on this advice, it is considered that adequate water supply exists and the subdivision will not have an unanticipated impact.

### **6.7.2 Sewer Infrastructure**

Existing development in Dolphin Point is serviced by the reticulated sewerage supply and Shoalhaven Water has advised that the area of the subject site could be serviced subject to:

- the provision of a new sewage pump station and rising main, scheduled for construction in 2007/08 ; or
- provision of a new gravity line between existing and proposed infrastructure.

Given the above, it is expected that the subdivision will have no unintended impacts on the sewerage supply scheme.

### **6.7.3 Recycled Water**

The consideration of the use of recycled water for the development has been limited to the implementation of appropriate water reduction/saving techniques required under the BASIX SEPP which will reduce demand on the reticulated water supply. At present, the BASIX target for the Shoalhaven LGA will ensure a reduction in water use of at least 40%. This will likely entail the provision of water tanks for the storage of collected stormwater, and its reuse in the flushing of toilets, laundry and outdoor uses. In addition, measures to reduce potable water usage are also likely, including the use of devices and appliances which utilise water more efficiently, such as low-flow showerheads, tap fittings and toilets.

The implementation of a reticulated recycled water scheme has not been considered as the current infrastructure provided by Shoalhaven Water to Dolphin Point does not support such a scheme. Furthermore, there is no planning in place for Shoalhaven Water to provide a scheme in this location.

As outlined in Section 6.7.1, Shoalhaven Water has outlined capability to support the proposed level of development.

### **6.7.4 Conclusion**

Based on the advice provided by Shoalhaven Water, it is considered that the proposed subdivision can be adequately serviced with both reticulated water and sewer services and the proposal will not result in unintended impacts or strain on the infrastructure.

## 6.8 THREATENED SPECIES

The subject site adjoins the Barnunj SCA and itself contains areas of native vegetation. The exception to this is the fringe of the property adjoining urban development where significant disturbance has occurred in the form of clearing for bushfire mitigation purposes, weed invasion, garden waste disposal and the like. **Plates 14** and **15** below show examples of the highly disturbed nature of the subject site immediately adjoining the existing village area.



**Plate 14: View of disturbed nature of site adjoining existing village.**



**Plate 15: View of disturbed nature of site adjoining existing village.**

Bushfire and Environmental Services (BES) were engaged to undertake an assessment of the proposal and consider the DG's EA Requirements relating to threatened flora and fauna species.

The BES report, titled Flora and Fauna Assessment is reproduced as **Annexure 4**. This section is based on the findings contained within this report.

The work undertaken by BES included a search of relevant existing data and mapping for the site and surrounds which identified potential habitat for a variety of threatened fauna and flora species. The identified flora species comprised the Thick-lipped spider Orchid *Caladenia tessellate*, Leafless Tongue-orchid *Cryptostylis hunteriana*, and native grass species *Thesium australe*. The identified fauna species comprised the Eastern Cave Bat, Eastern Freetail Bat, Greater Broad-nosed Bat, Grey-headed Flying fox, Large-footed Myotis, White-footed Dunnart, Glossy Black Cockatoo, Ground Parrot, Masked Owl, Powerful Owl, Osprey, Regent Honeyeater, and Giant Burrowing Frog. Furthermore, migratory species included the Black-faced Monarch, Regent Honeyeater, Rufous Fantail, Satin Flycatcher and White-throated Needletail. Finally, some vegetation within the site is consistent with an Endangered Ecological Community (EEC) known as "Swamp sclerophyll forest on the coastal floodplains of the NSW North Coast, Sydney Basin and South East Corner Bioregions" (NSW Scientific Committee 2005).

Following the initial investigation outlined above a programme of field work involving random and targeted surveys, spotlighting and call playback, stagwatching, trapping and habitat analysis was carried out to target the potential species. Fieldwork involved 92.75 person hours on flora surveys, and 68 person hours on fauna surveys, in addition to 106 ANABAT detector-hours, 60 arboreal and 90 terrestrial hair-funnel nights, 410 Elliot-trap nights, 210 small cage trap-nights, and 64 pitfall trap-nights. Such work has been undertaken over a 12 month period and included a variety of breeding and flowering seasons.

The following further considers the impacts on flora and fauna species identified on the site from the research and fieldwork undertaken by BES.

### **6.8.1 Endangered Ecological Communities**

The subject site contains two areas of "Swamp sclerophyll forest on the coastal floodplains", located along the drainage depression near the south-western boundary of the site, and the low-lying area at the north-western corner of the site. These have been identified and surveyed in order that the precise location is known and this is shown on the subdivision layout shown as **Annexure 1**.

### **Northern EEC area**

In relation to the northern most area, BES have indicated that due to the narrow band of EEC which is currently impacted by downstream flows off adjoining urban areas, the EEC has lower ecological values than elsewhere. It is noted that DEC during consultation as outlined in Section 4.1 were in agreement with the proposal to retain more than half of this EEC area without allowance for a buffer, acknowledging its lesser importance and reduced ecological significance.

### **Southern EEC area**

In relation to the southern most EEC, BES have advised that this area has greater conservation significance given it immediately adjoins the Barnunj SCA, and being sited downslope of this land, the influence of drainage is negligible. BES have consequently recommended therefore that this area be protected by the preservation of the area, and the provision of a 20 m buffer surrounding the retained vegetation. Further, appropriate consideration has been given to the drainage within this area to ensure impacts on the hydrology, both quantity and quality are ameliorated. The preservation of this vegetation is supported by this EA.

### **6.8.2 Flora Species**

In relation to fauna species, the only threatened plant identified on the site was the Leafless Tongue orchid *Cryptostylis hunteriana*, where BES survey revealed the presence of 12 individual plants, as well as an area of approximately 4.41 ha which provides suitable habitat for this species. This area was subsequently marked and surveyed by APA to precisely define the location of the orchids, which were found to be in the middle of the subject site, in the location where SPP No. 1 proposes the collector road servicing the subject site and the development of the adjoining lands. Whilst consideration was given to the retention of these 12 individual plant species, it was generally acknowledged in consultation with DEC that the area to be retained being surrounded and in close proximity to the built-up residential development would be problematic in regards to the long term viability of the plants in this location. Additionally, the subject site is not a large one, and therefore flexibility in siting of proposed roads and the subdivision layout is significantly constrained, particularly due to:

- the fixed location of adjoining existing roads;
- neighbouring subdivision layout;
- need for provision of a collector road (including emergency egress for bushfire protection); and
- bushfire constraints/controls.

The orchids would require a buffer to be maintained around them to minimise impact of development, which would then become a bushfire hazard in itself requiring the provision of additional managed lands in the form of an APZ. Finally, retention of the orchids and buffer, coupled with the retention of the EEC, would effectively prevent the provision of an effective road layout (including a suitable emergency egress collector road) serving the site and the neighbouring property essential to fire safety provision for protection of human life and property.

Consequently, BES further investigated the presence of the Leafless Tongue-Orchid on adjoining lands, particularly in the adjacent Barnunj SCA. This has revealed that a larger population of 21 individual plants exist (representing 75% greater than that identified on the subject site) approximately 300 m to the south of the site. These are in an area that is currently degraded due to uncontrolled vehicular access which is considered by BES to constitute a threat to the orchids. Therefore, these are considered to be a worthwhile population to more appropriately manage through the provision of an offset, given their location within an appropriately defined conservation environment. In addition, DEC records indicate the occurrence of the species elsewhere within the Barnunj SCA and Meroo National Park, and consequently, the species appears well represented in local conservation reserves. According to BES, *“the loss of about 4.41 ha of habitat represents about 1% of the habitat available for the species in these conservation reserves”*.

Given the obvious constraints to retaining the orchids, along with the existence of larger local populations and other suitable habitats nearby, BES has recommended that the orchids be translocated to suitable habitat within the Barnunj SCA, with additional offset works being undertaken within the Barnunj SCA in order to improve the management of the existing orchids within this area. Such works would include:

- targeted survey to identify all local population;
- light ripping of the existing unwanted tracks to prevent vehicular access;
- revegetation of disturbed area;
- construction of fencing to further restrict access; and
- on-going monitoring of the orchids.

This recommendation is supported by this EA given:

- the extent of habitat on the subject site represents a negligible amount when considering that locally 99% of other suitable habitat is available in state controlled conservation reserves;

- translocation is to be undertaken;
- reasonable offsets are offered which would see the more effective management of 21 individual plant species, which is a population 75% greater than that detected on the subject site;
- broader planning objectives espoused in SLEP and SPP No. 1 are achieved;
- retention of the orchids would undermine bushfire mitigation measures by constraining the available emergency egress from the property to the west of the subject site. If this secondary egress is not provided, the only access is along the western boundary of that site where a significant fire threat is apparent;
- retention of the orchids would significantly compromise the subdivision layout and development area affecting the economic viability of the project and attainment of Shoalhaven City Council's policies espoused in SPP No. 1, as well as State Government Policies contained in the South Coast Regional Strategy; and
- retention of the orchids would not lead to the orderly development of the site.

Based on the offset measures proposed by BES, it is considered that the proposal is unlikely to have a significant impact on the threatened flora species, Leafless Tongue-orchid.

### **6.8.3 Fauna Species**

#### **6.8.3.1 Large-footed Myotis and Osprey**

BES have discounted the suitability of the subject site for these species and have concluded that:

*“The proposal is highly unlikely to impact these species significantly as it will not affect foraging or breeding resources. No further consideration is required for these threatened species.”*

#### **6.8.3.2 Glossy Black-cockatoo**

The subject site contains *Allocasuarina littoralis*, feed trees for the Glossy Black-cockatoo and Figure 6 in the BES report shows the location of these. BES undertook targeted surveys nesting surveys which did not detect any nesting or breeding activities. Whilst the site would also provide a small area of foraging habitat, this is not significant when compared with that available in the Meroo National Park and Barnunj SCA. BES have concluded that:

*“the loss of known foraging resources and potential nesting resources for the Glossy Black-cockatoo on Lot 171 is unlikely to reduce the long-term viability of the local population or accelerate the extinction of the species. Extensive foraging and nesting resources for the species occur on reserved lands south and west of Lot 171.”*

#### **6.8.3.3 Eastern Freetail Bat**

The site contains habitat for the Eastern Freetail Bat whilst echolocation calls undertaken by BES identified three calls of this species, emanating near a cluster of trees with hollows. Figure 6 of the BES report identifies the location of these trees. This shows the areas being in close proximity to existing development on adjoining lands, and also the location of the collector road required under SPP No. 1. It is noted that according to the BES report, these three calls could be attributed to the one individual. Regardless of this however, the intensive survey work undertaken has revealed that the site does not contain a large population of the Eastern Freetail Bat.

Whilst consideration to the retention of these trees was given, the provision of suitable buffers and asset protection would significantly affect the economic viability of the subdivision, the broader public interest and attainment of the goals of Shoalhaven City Council outlined in SPP No. 1.

BES has also considered the impact of the proposal on foraging and roosting resources. This revealed that some suitable habitat will be maintained on the site within the proposed reserves, whilst ample forest providing suitable habitat is available within the immediately adjoining Barnunj SCA and Meroo National Park. BES have concluded that:

*“the loss of known foraging resources and potential roosting resources for Eastern Freetail Bat on Lot 171 is unlikely to reduce the long-term viability of the local population or accelerate the extinction of the species due to the small number of individuals likely to occur on Lot 171 and the extent of foraging and roosting resources for the species on reserved lands south and west of Lot 171.”*

#### **6.8.3.4 White-footed Dunnart**

Trapping undertaken by BES resulted in two separate captures of a female White-footed Dunnart and Figure 6 in the BES report shows the location of these. Given BES are not licensed to tag captured animals, it is possible that the same individual was caught on both occasions. Consideration has been given to the retention of habitat where the species were recorded, however according to BES, this would entail the provision of a buffer to the retained habitat and it was generally acknowledged in consultation with DEC that the area to be retained being surrounded and in close proximity to the built-up

residential development would be problematic in regards to the long term viability of the individuals in this location. Additionally, the subject site is not a large site and therefore there is not a great deal of flexibility available for siting of the roads and the subdivision layout, particularly due to:

- the fixed location of adjoining existing roads;
- neighbouring subdivision layout;
- need for provision of a collector road (including emergency egress for bushfire protection);
- bushfire constraints/controls.

Consequently, BES has not recommended the retention of this habitat, instead recommending a series of offset measures which would be undertaken involving the attempted capture and relocation of any White-footed Dunnarts on the site to the Barnunj SCA, and provision of funding to the DEC in order to further study the species to improve understanding.

This recommendation is supported by this EA given:

- the extent of habitat on the subject site represents a negligible amount when considering that locally 99% of other suitable habitat is available in state controlled conservation reserves;
- translocation is to be undertaken;
- reasonable offsets are offered which would see the investigation, further study and potential management of habitat in the adjoining Barnunj SCA;
- broader planning objectives espoused in SLEP and SPP No. 1 are achieved;
- retention of the habitat would undermine bushfire mitigation measures by constraining the available alternative emergency egress from the property to the west of the subject site. If this secondary egress is not provided, the only access is along the western boundary of that site where a significant fire threat is apparent;
- retention of the habitat would significantly compromise the subdivision layout and development area affecting the economic viability of the project and attainment of Shoalhaven City Council's policies espoused in SPP No. 1, as well as State Government Policies contained in the South Coast Regional Strategy; and
- retention of the habitat would not lead to the orderly development of the site.

Based on the offset measures proposed by BES, it is considered that the proposal is unlikely to have a significant impact on the long term viability of the threatened fauna species, White-footed Dunnart.

#### **6.8.4 Proposed Compensatory Offset Packages**

The BES Report has recommended a range of funding packages in order to offset impacts where these are unavoidable. Offset funding measures include:

- Provision of \$15,000 by the developer towards the preparation and implementation of a Management Plan for the Leafless Tongue-Orchid in the Barnunj State Conservation Area to enhance the known population and increase its long-term security;
- Translocation of the Leafless Tongue Orchids from the subject site into suitable habitat in the Barnunj State Conservation Area following preparation and approval of an orchid translocation plan;
- Provision of \$15,000 by the developer towards the development and implementation of an appropriate management plan for the White-footed Dunnart in the Barnunj State Conservation Area to enhance any additional population and increase its long-term security;
- An additional trapping programme to enhance the body of knowledge on the White-footed Dunnart in the vicinity of the site and to assist in the long-term security of this species in the area.
- Translocation of any identified White-footed Dunnart individuals from the subject site to vacant home ranges within the Barnunj State Conservation Area.

#### **6.8.5 Concluding Comments**

The work undertaken by BES is considered to address the Director-General's Environmental Assessment Requirements.

The proposal has been designed to preserve EEC habitat which retains the features having high ecological value, particularly with regards to connectivity to adjacent reserve, with appropriate offsets where impact is unavoidable. This is considered to be an acceptable approach by which to assess the proposal to ensure a balanced outcome for the subdivision design in its totality, and due regard is given to other constraints and imperatives such as mitigation of bushfire risks, traffic engineering principles, water quality measures, siting of public reserves, broader planning policies, orderly

development, economic viability, social aspects related to providing opportunities for the local indigenous community and urban design.

The proposed offsets include a range of measures comprising translocation of plant species, contribution to the management of land in the Barnunj SCA and the funding of studies by the developer to allow a better understanding of some of the species detected. This is considered to represent a balanced approach to assessing the impacts of the proposal.

The mitigation and offset measures recommended by BES are supported in this Environmental Assessment Report.

## **6.9 BARNUNJ STATE CONSERVATION AREA**

Impacts on the Barnunj SCA have been considered by BES in their Flora and Fauna Assessment, **Annexure 4** of this EA. BES have considered the impacts of the proposal and have reviewed the following:

- edge treatment,
- additional human visitation and activities,
- hydrology,
- weed invasion,
- introduced fauna species,
- soil and sediment, and
- visual impacts.

BES have concluded that *“the impacts of the proposal on the adjacent Barnunj State Conservation Area are considered acceptable”*.

## **6.10 ABORIGINAL CULTURAL HERITAGE VALUES**

In support of this application is a Heritage Impact Assessment (HIA) and an Aboriginal Heritage Management Plan (HMP) prepared by South East Archaeology Pty Ltd (SEA) which has examined the proposal and its impacts on Aboriginal and cultural heritage, and made recommendations as to the future management of the site. A copy of these reports is included as **Annexure 7**. This section is based on the findings and recommendations of SEA.

The HIA was prepared in accordance with the guidelines established by the Department of Environment and Conservation and consultation undertaken with DEC, and involved the following:

- consultation with relevant government agencies;
- consultation with relevant Aboriginal stakeholders;
- review of relevant existing information including heritage registers, LEPs and the like;
- field inspection, accompanied by representatives of the registered Aboriginal stakeholders; and
- preparation of a final report incorporating input from the registered Aboriginal stakeholders.

Further, in undertaking the relevant consultation, South East Archaeology met with DEC who confirmed that:

- No test excavation will be required within the LALC land subject to obtaining suitable data from other nearby developers,
- The new DEC Aboriginal consultation process will not need to be implemented,
- The Statement of Commitments will need to incorporate mitigation measures and include an Aboriginal Heritage Management Plan which will incorporate the full details of the proposed mitigation.

The HIA found no evidence of Aboriginal heritage on the subject site, however potential evidence in the form of stone artefacts and shell midden deposits have been found on adjoining land to the west of the subject site.

The HIA has recommended that the primary mitigation measures relate to a programme of salvage prior to construction activities on the site and no additional studies are required.

The HIA outlines a number of potential “Mitigation and Management Strategies” which could be adopted, whilst the Aboriginal HMP that has been prepared comprehensively specifies the policies and actions required in every conceivable circumstance to mitigate and manage the potential impacts of the proposal on Aboriginal heritage after Part 3A approval is granted. The HMP includes procedures for ongoing Aboriginal consultation, mitigation measures for the potential Aboriginal evidence, and management procedures for any previously unrecorded evidence and skeletal remains. The HMP guides

management of the Aboriginal heritage resource *in lieu* of a Section 90 Consent. The HMP includes provisions relating to:

- roles and responsibilities;
- Aboriginal community involvement;
- site database;
- management of Aboriginal sites;
- management of skeletal remains;
- mitigation measures;
- conservation areas, and
- plan review.

The HIA and HMP prepared by SEA address the Director-General's Environmental Assessment Requirements and its recommendations are supported in this Environmental Assessment Report.

Having regard to the Department of Environment and Climate Change *Interim Guidelines for Aboriginal Cultural Heritage Impact Assessment and Community Consultation*, the following justification provided by South East Archaeology addresses the transitional implementation where relevant assessment commenced prior to the development of the Interim Guidelines:

- *"The ULALC land Aboriginal heritage assessment commenced in March 2003 (initially as a joint project with the adjoining Dairy Stages 2-5) when a surface survey was conducted by Navin Officer Heritage Consultants of part of this area. Further surface inspection was undertaken by South East Archaeology in October 2003 and February 2004 and reported on in March 2004. A final revised report was provided in May 2007 specifically for the ULALC land alone. A s87 Permit was issued by DECC in June 2004 for test areas within the adjacent Dairy Stages 2-5 and a program of test excavations undertaken by South East Archaeology in July-August 2004 with the final reporting completed in May 2005.*
- *The DECC Interim Community Consultation Requirements for Applicants was introduced in January 2005. Written DECC advice is that the policy does not need to be implemented for projects such as this which commenced prior to 1/1/05 (eg. see attached correspondence).*
- *In relation to the Malbec/Ulladulla LALC Part 3A project, which initially formed part of The Dairy Stages 2-5 assessment, DECC (Craig Jones and Sue Feary) accepted on 16 May 2006 in a meeting with Peter Kuskie, South East Archaeology, that the Interim Community Consultation Requirements for Applicants will not need to be*

*implemented, as this project commenced prior to the introduction of that policy.*

- *Further evidence of DECC's acceptance that the Interim Community Consultation Requirements for Applicants policy does not need to be implemented is DECC's approval of a s90 application for The Dairy Stages 2-5 lodged in October 2006 and subsequently issued (#2618, 2619 and 2620) on 17 January 2007, without any requirement for implementation of the consultation policy that was introduced subsequent to the commencement of the investigation.*

*Apart from the consultation guidelines noted above, the archaeological report and management plan otherwise addresses the DECC draft Guidelines for Aboriginal Cultural Heritage Impact Assessment and Community Consultation."*

## **6.11 ENVIRONMENTAL RISK ANALYSIS**

The development is considered to incur the following environmental risks:

- bushfire;
- visual impact and urban design.;
- construction;
- water quality, drainage and estuary management;
- infrastructure;
- Aboriginal cultural values;
- Traffic;
- threatened flora and fauna.

**Table 5** below outlines how these risks have been considered in the proposal and subdivision design.

**Table 5**  
**Environmental Risk Assessment**

| <b>Issue</b>                                   | <b>Potential Risks</b>   | <b>Proposed Actions</b>  | <b>Section</b>               |
|--|--|--|------------------------------|
| Bushfire                                       | Potential safety to risk to existing and future residents and visitors.  | Undertake bushfire risk assessment and implement the recommendations including the provision of perimeter road adjacent bushfire risks, APZ and Levels of Construction in accordance with Planning for Bushfire Protection and preparation of a Bushfire Management Plan for the proposed public reserves. | Section 6.4                  |
| Visual Impact and Urban Design                 | Potential impacts to visual amenity for site and surrounds.  | Prepare Design Guidelines to guide future development of the site and impose a restrictive covenant under Section 88B instrument requiring development to be finished in darker toned colours adjacent to Barnunj SCA and retained EEC.  | Section 6.3                  |
| Construction                                   | Soil erosion during site disturbance.<br>Air quality.<br>Construction traffic.   | The Statement of Commitments includes the preparation of a Construction Management Plan to provide detailed mitigation measures during the construction of the subdivision.<br><br>The Transport Report has included consideration of the impacts of construction traffic.                                 | Section 7<br><br>Section 6.2 |
| Water Quality, drainage and estuary management | Potential reduction in water quality of downstream properties and Lake Burrill.<br><br>Potential impact on hydrology in Endangered Ecological Community. | Undertake Water Cycle Management Study and implement recommendations including provision of wetlands, stilling basins, bio-retention filters, constructed wetland, rock-lined channels, rainwater tanks, onsite detention within every allotment, and gross pollutant traps.                               | Section 6.6                  |
| Infrastructure                                 | Additional burden placed on the provision of essential infrastructure.   | Consultation with relevant agencies to determine ability to service the site   | Section 6.7                  |

| Issue                           | Potential Risks  | Proposed Actions  | Section                    |
|---------------------------------|--|---|----------------------------|
| Aboriginal Cultural Values      | Potential disturbance or destruction of aboriginal heritage values or resources.                                       | Undertake Aboriginal Heritage Assessment and implement recommendations.   | Section 6.10               |
| Traffic                         | Additional traffic impacting on the established and proposed road network.<br>Provision of emergency vehicular egress. | Undertake Traffic Impact Assessment and design subdivision layout for general consistency with SPP No 1 in relation to road hierarchy and connectivity.   | Section 6.2                |
| Threatened Species Conservation | Impact on threatened flora and fauna species and Endangered Ecological Communities.                                    | Undertake Flora and Fauna Assessment and implement the recommended conservation measures which include retention of habitat and a range of mitigation methods and offsets where impacts are unavoidable.  | Section 6.8                |
| Social Impacts                  | Development will increase the population and place additional demand for social and community services.                | Development will not add population beyond that anticipated and planned for.<br>Development will contribute to the long-term social well-being of the Ulladulla indigenous community.   | Section 2.2<br>Section 2.4 |
| Economic Impacts                | Development will increase the supply of residential allotments and ultimately population growth.                       | Development will add to the supply of residential land consistent with the policies of the State government and Shoalhaven City Council.<br>Development will contribute to the growth of the construction industry in the southern Shoalhaven.<br>Development will contribute to the long-term economic well-being of the Ulladulla indigenous community. | Section 2                  |

## **7.0 STATEMENT OF COMMITMENT**

The Statement of Commitments listed below has been compiled based on the Environmental Assessment undertaken, the constraints and opportunities available at the site and the comments made by Shoalhaven City Council, various state government agencies and the public. They provide a commitment from the developer indicating their responsibilities in developing the site as proposed to ensure that the development is environmentally, socially, and economically sustainable.

In developing the subdivision, the developer gives the following commitments in order to minimise the impact on the environment:

## STATEMENT OF COMMITMENTS

| Item                                     | Commitment   | Timing                               |
|--|--|--------------------------------------|
| <b>General</b>                           | The developer will carry out the development in accordance with this Environmental Assessment Report (EA), prepared by Cowman Stoddart dated May 2007, plans prepared by Allen Price & Associates Reference No 24163 and supporting reports.   | For the duration of the subdivision. |
| <b>Legislative Controls/Requirements</b> | <p>The developer will obtain and maintain the following licences, permits and approvals for the residential subdivision:</p> <ul style="list-style-type: none"> <li>• Shoalhaven City Council - Construction Certificates for engineering works for each stage of the subdivision. The application for Construction Certificates will contain Design Drawings submitted containing, where relevant, detailed designs relating to earthworks, drainage, Soil erosion and Sediment Control and site rehabilitation, tree clearing and site stability, roadworks, footpaths, water supply and sewerage works, and landscaping.</li> <li>• Shoalhaven City Council - Section 138 Consent for roadworks (Roads Act 1993);</li> <li>• Integral Energy - Design Certification;</li> <li>• Integral Energy - Notification of Arrangement;</li> <li>• Telstra - Compliance Certificate;</li> <li>• Shoalhaven Water – Certificate of Compliance;</li> <li>• Shoalhaven City Council – Subdivision Certificates for each stage;</li> <li>• Department of Land and Property Information - registration of the subdivision.</li> </ul> | For the duration of the subdivision. |

| Item   | Commitment  | Timing  |
|--|---|---|
| <b>Final Plan of Subdivision</b>   | The developer will prepare a final plan of subdivision and Section 88B instrument for each stage of the development in accordance with the recommendations of the Environmental Assessment.               | Prior to the release of Subdivision Certificates.   |
| <b>Ecological</b>  | <b>Endangered Ecological Community</b>  |   |
|  | The developer will prepare a Vegetation Management Plan (VMP) in relation to that part of the site containing the Endangered Ecological Community (EEC) for approval by Shoalhaven City Council.          | Prior to the release of the Construction Certificate for that stage of the development.                 |
|  | The developer will implement the recommendations and prepare the site containing the Endangered Ecological Community (EEC) in accordance with the VMP prior to its dedication to Shoalhaven City Council. | Prior to the release of the Subdivision Certificate which creates the lot(s) containing the EEC.        |
|  | The developer will maintain the Endangered Ecological Community in accordance with the recommendations of the approved Vegetation Management Plan after its dedication to Shoalhaven City Council.        | For a period of three (3) years, commencing upon the dedication of the land to Shoalhaven City Council. |
|  | <b>Trapping</b>   |   |
| A program of trapping for the White-footed Dunnart will be undertaken in Barnunj State Conservation Area using accepted trapping techniques at appropriate densities. The trapping will be undertaken by an appropriately licensed person following approval for the trapping from the Department of Environment and Conservation. Following completion of the trapping program, the proponent will fund the preparation and implementation of an appropriate management plan for the White-footed Dunnart in the Barnunj State Conservation Area. | Prior to release of the Subdivision Certificate.  |   |

| Item                   | Commitment  | Timing  |
|------------------------|---|---|
| Ecological (continued) | <b>Offsets</b>  |   |
|                        | <p>The proponent will fund \$15,000 for the preparation and implementation of an appropriate Management Plan for the Leafless Tongue Orchid in the Barnunj State Conservation Area to enhance the known population and increase its long-term security. Implementation of the plan will include but not be limited to:</p> <ul style="list-style-type: none"> <li>a) targeted field surveys for the species within 800 m of the known population;</li> <li>b) light ripping of existing tracks identified for closure in the vicinity of the known population;</li> <li>c) revegetation of lightly ripped tracks;</li> <li>d) construction of additional barriers and promotion of revegetation at points where tracks to be ripped adjoin tracks to be retained for access;</li> <li>e) provision of fencing around sub-populations under immediate threat from ongoing use of the conservation area;</li> <li>f) monitoring of the known orchid population, revegetation works and barriers for a period of up to three years; and</li> <li>g) research on the species within the locality by university graduates on projects identified by the plan and agreed between Malbec Properties and the Department of Environment and Conservation.</li> </ul> | Prior to the release of the Subdivision Certificate.  |
|                        | <p>The proponent will fund the attempted translocation of the Leafless Tongue Orchid individuals from Lot 171 into suitable habitat in Barnunj State Conservation Area following the preparation and approval of an orchid translocation plan.</p> <p>The proponent will fund \$15,000 for the development and implementation of an appropriate management plan for the White-footed Dunnart in Barnunj State Conservation Area. The implementation of such a plan will include but not be limited to:</p>  | <p>Prior to the release of the Subdivision Certificate.</p> <p>Prior to the release of the Subdivision Certificate.</p> |

| Item                                     | Commitment  | Timing   |
|--|---|--|
| <b>Ecological (continued)</b>            | <ul style="list-style-type: none"> <li>a) targeted field surveys for the species in preferred habitat;</li> <li>b) mapping of anticipated home ranges for the species;</li> <li>c) fire management of known and/or preferred habitat;</li> <li>d) predator control within known and/or preferred habitat via capture and baiting;</li> <li>e) research on the species by university graduates on projects identified by the plan and agreed between Malbec Properties and the Department of Environment and Conservation;</li> <li>f) translocation of White-footed Dunnart individuals from Lot 171 to vacant home ranges within Barnunj State Conservation Area; and</li> <li>g) monitoring of any identified White-footed Dunnart population for a period of three years.</li> </ul> |  |
|  | <p><b>Other</b></p> <p>The developer will impose a restriction on the title of each allotment requiring that any dogs or cats are kept only within the curtilage of a dwelling house, unless secured on a leash.</p>  | <p>Prior to the release of the Construction Certificate for that stage of the development.</p>     |
| <b>Public Open Space</b>                 | <p>The developer will prepare and embellish all public reserves in accordance with the Vegetation Management Plan (for EEC) and detailed landscape design plans to be approved by Shoalhaven City Council as part of the Construction Certificate.</p>  | <p>Prior to release of certificate for subdivision for each stage/s containing public reserve.</p> |
|  | <p>The developer will dedicate all public/drainage reserves to Shoalhaven City Council.</p>   | <p>Prior to release of Subdivision Certificate and dedicated upon registration.</p>                |
| <b>Waste Minimisation and Management</b> | <p>The developer will prepare a Waste Minimisation and Management Plan for subdivision construction works in accordance with Development Control Plan No: 93 for approval by Shoalhaven City Council for implementation.</p>  | <p>Prior to the release of the Construction Certificate for each stage.</p>                        |

| Item                       | Commitment  | Timing  |
|----------------------------|---|---|
| <b>Construction</b>        | The developer will prepare a Construction Management Plan for approval by Shoalhaven City Council including education of workers in the approvals and conditions requiring compliance (including soil erosion and sediment controls, flora and fauna and aboriginal archaeological issues), details of the environmental management procedures during the development and measures relating to waste minimisation and management. | Prior to the commencement of construction and for the duration of the development.                            |
| <b>Urban Design</b>        | The developer will finalise the form and implementation strategies regarding the Draft Design Guidelines in consultation with Shoalhaven City Council.  | Prior to the release of the Subdivision Certificate for each stage.   |
|                            | The final Design Guidelines will be incorporated into the contracts for sale for each allotment.  | Prior to the release of the Subdivision Certificate for each stage and at the time of sale of each allotment. |
|                            | <b>Restriction as to User</b>   |   |
|                            | The developer will impose a Section 88B Restriction as to User on the title of those allotments opposite the Barnunj State Conservation Area and retained public reserve to require that any buildings are finished in darker toned, non-reflective, colours that blend with the natural landscape.   | Prior to the release of the Subdivision Certificate for the relevant stage/s.                                 |
| <b>Bushfire Management</b> | <b>Provision of Asset Protection Zones</b>  |   |
|                            | The developer will establish and maintain Asset Protection Zones (APZs) in accordance with the Bushfire Assessment, April 2007 prepared by Bushfire and Environmental Services Pty Ltd.   | Prior to the release of the Subdivision Certificate for each stage.   |
|                            | The developer will install relevant infrastructure as required, including fire hydrants.  | Prior to the release of the Subdivision Certificate for each stage.   |

| Item   | Commitment  | Timing  |
|--|---|---|
| <b>Bushfire Management (continued)</b>           | <b>Restriction as to User</b>   |   |
|  | The developer will impose a Section 88B Restriction as to User on the title of relevant allotments specifying a Level of Construction in accordance with Figure 3 in the Bush Fire Assessment prepared by Bushfire and Environmental Services.  | Prior to the release of the Subdivision Certificate for each stage.   |
| <b>Water Quality Management and Soil Control</b> | The developer will design, install and dedicate water quality control measures in accordance with Construction Certificate Plans approved by Shoalhaven City Council and staging approved by the Department of Planning.  | Prior to the release of the Subdivision Certificate for each stage.   |
|  | The developer will maintain the water quality control measures for a period after dedication to Shoalhaven City Council.  | For a period of three (3) years, commencing upon the dedication to Shoalhaven City Council of the land containing the water quality control measures. |
|  | The developer will prepare a soil and water management plan to control run off during construction in accordance with the principles of the Landcom publication Managing Urban Stormwater (MUS): Soils and Construction Volume 1, 4 <sup>th</sup> Edition and Construction Certificate Plans approved by Shoalhaven City Council and DCP 100. | Prior to release of the Construction Certificate for each stage.  |
| <b>Cultural Heritage</b>                         | The developer will implement salvage and other management measures as recommended in the reports prepared by South East Archaeology Pty Ltd dated May 2007  | For the duration of subdivision works.  |
|  | The developer will liaise with the Ulladulla Local Aboriginal Land Council of progress of the development.  | Ongoing through the construction of the subdivision.  |
| <b>Infrastructure</b>                            | <b>Roads</b>  |   |
|  | The developer will construct all roads and intersections with Highview Drive, Vista Drive, Bonnie Troon Close, and the un-named road reserve off Vista Drive in accordance with DCP 100 and approved Construction Certificate drawings.   | Prior to the release of the Subdivision Certificate for each relevant stage.  |

| Item                                  | Commitment  | Timing  |  |
|---------------------------------------|---|---|--|
| <b>Infrastructure<br/>(continued)</b> | The developer will provide a minor street drainage system to accommodate the 5 year A.R.I. storm event in accordance with plans approved by Shoalhaven City Council with the Construction Certificate.  | Prior to the release of the Subdivision Certificate for each relevant stage.                  |  |
|                                       | The developer will provide a major street drainage system to accommodate the 100 year A.R.I. storm event in accordance with plans approved by Shoalhaven City Council with the Construction Certificates.   | Prior to the release of the Subdivision Certificate for each relevant stage.                  |  |
|                                       | The developer will construct footpaths as shown on the plans prepared by Allen Price and Assoc and approved Construction Certificate drawings.  | Prior to the release of the Subdivision Certificate for each relevant stage.                  |  |
|                                       | The developer will provide street signs in accordance with the requirements of Shoalhaven City Council.   | Prior to the release of the Subdivision Certificate for each stage.                           |  |
|                                       | <b>Traffic Calming</b>  |   |  |
|                                       | The developer will construct raised thresholds within the road connecting Bonnie Troon Close to other public roads in the subdivision in order to discourage through traffic and reduce traffic speeds. Such works shall be in accordance with plans approved by Shoalhaven City Council with the Construction Certificate. | Prior to the release of the Subdivision Certificate which create the lots fronting this road. |  |
|                                       | <b>Electricity and Telecommunications</b>   |   |  |
|                                       | The developer will provide underground power to each residential lot in the subdivision accordance with the requirements of Integral Energy   | Prior to the release of the Subdivision Certificate for each stage.                           |  |
|                                       | The developer will provide underground telecommunications infrastructure to each lot in the subdivision in accordance with requirements of Telstra.   | Prior to the release of the Subdivision Certificate for each stage.                           |  |
|                                       | The developer will install street lighting in accordance with the requirements of Integral Energy.  | Prior to the release of the Sub-division Certificate for each stage.                          |  |

| Item                              | Commitment  | Timing  |
|-----------------------------------|---|---|
| <b>Infrastructure (continued)</b> | <b>Drainage</b>   |   |
|                                   | The developer will install street and interallotment drainage as necessary in accordance with plans approved by Shoalhaven City Council.  | Prior to the release of the Subdivision Certificate for each stage as applicable.               |
|                                   | <b>Water and Sewer Services – Residential Allotments</b>  |   |
|                                   | The developer will provide reticulated water and sewerage services to each lot in the subdivision in accordance with the requirements of Shoalhaven Water   | Prior to the release of the Subdivision Certificate for each stage.                             |
| <b>Landscaping Plans</b>          | <b>Water and Sewer Services - Public Reserves</b>   |   |
|                                   | Within the public reserves, the developer will provide a single connection to the reticulated water supply.   | Prior to the release of the Subdivision Certificate for each stage/s containing public reserve. |
| <b>Landscaping Plans</b>          | The developer will use native species, endemic to the locality in the preparation of landscaping plans, and subsequent works undertaken in conjunction with this subdivision.   | For the duration of the subdivision works.  |
| <b>Geotechnical</b>               | The developer will provide a lot classification geotechnical report to Shoalhaven City Council for each stage of development prior to the release of the final plan of subdivision for that stage.  | Prior to the release of the Subdivision Certificate for each stage.                             |
| <b>Staging</b>                    | The developer will construct the subdivision as outlined in accordance with Section 2.3 of this EA and the Proposed Staging Plan prepared by Allen Price and Associates or as otherwise approved in Construction Certificate plans approved by Shoalhaven City Council. | For the duration of the subdivision works.  |

| Item                           | Commitment  | Timing  |
|--------------------------------|---|---|
| <b>Developer Contributions</b> | The developer will pay Section 94 developer contributions in accordance with Shoalhaven City Council's Section 94 Contributions Plan on a "per ET" basis for each stage of the residential subdivision. | Prior to the release of the Subdivision Certificate for each stage. |
|                                | The developer will pay Section 64 water and sewer developer contributions in accordance with the development servicing plan applicable at the time of payment.  | Prior to the release of the Subdivision Certificate for each stage. |
| <b>Signage</b>                 | The developer will provide estate marketing signs in accordance with the provisions of DCP 89 – Exempt and Complying Development or as otherwise approved by Shoalhaven City Council.                   | For the duration of the subdivision works.                          |

## **8.0 CONCLUSION**

This report provides an Environmental Assessment in relation to a Major Project Application for a residential subdivision at Dolphin Point.

The plan provides for the development of 142 residential allotments, along with two public reserves, ultimately allowing for the residential expansion of the existing village in a manner that appropriately considers the relevant issues that apply to the site, including ecological, statutory, social, and scenic.

The land, where residential subdivision is proposed, is zoned Residential 2(c) under the provisions of SLEP, and has been zoned for urban development for in excess of 30 years.

The site is the subject of a detailed Planning Policy (SPP No. 1), adopted by Shoalhaven City Council in 2004 after community consultation and consideration of proper planning principles. The proposed subdivision is generally consistent with the layout required under SPP No. 1 and other Council policies applicable to the subdivision of land. Furthermore, it is considered that the proposal is consistent with state and regional provisions applying to the site.

The development is a reasonable one that appropriately balances the constraints that apply to a site of this nature, with the intended desire to expand Dolphin Point in a planned fashion. The subdivision layout is considered to reasonably balance the conflicting and competing issues requiring consideration in the development of this complex site. The layout combines modern subdivision design and practice, with an already established village character and includes an appropriate level of public open space and the retention of large forested areas.

The accompanying reports are the result of over two years of studies, consultations, investigations and research. Current best practice has been applied to all facets of the development and it is considered that this will lead to a high quality urban subdivision in a coastal context that is ecologically sustainable in the long term.

This Environmental Assessment, and accompanying reports, properly considers Environmental Assessment Requirements of the Director-General of the Department of Planning.

In preparing this environmental assessment, separate reports addressing Traffic Impacts, Flora and Fauna, Design Guidelines, Bushfire, Water Cycle Management and Heritage Impact have been prepared, and have been considered in this Environmental Assessment.

Key mitigating features of this development include an appropriate subdivision design, retention and treatment of some ecologically sensitive areas and appropriate mitigation offsets

where impact is unavoidable, use of best practice stormwater management, Design Guidelines aimed at providing an appropriate built form and consideration of natural hazards.

Support for the development is recommended subject to implementation of those matters outlined in the Statement of Commitments.

**Stuart Dixon MPIA**  
**Certified Practising Planner**