

ENVIRONMENTAL ASSESSMENT

Concept Approval Application and
Project Applications

**RESIDENTIAL & RECREATIONAL
DEVELOPMENT
AT
DOLPHIN POINT**

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environmental assessment

Submission to

DEPARTMENT OF PLANNING NSW

**CONCEPT APPROVAL APPLICATION AND PROJECT APPLICATIONS FOR A
STAGED DEVELOPMENT TO PERMIT RESIDENTIAL & RECREATIONAL
DEVELOPMENT AT DOLPHIN POINT**

Prepared on behalf of

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1.0 EXECUTIVE SUMMARY

This Environmental Assessment Report is submitted under Part 3A of the Environmental Planning and Assessment Act 1979 and State Environmental Planning Policy (Major Projects) 2005. The proposed development is located within the coastal zone, as defined in Clause 1 of Schedule 2 of the State Planning Policy. Part 3A is triggered as the major project application involves the subdivision of residential land in a coastal zone into more than 25 allotments.

The application proposes the residential subdivision of land comprising Lot 11 DP 1104789, Pt. Lot 72 and Pt. Lot 73 DP 1073600 at Dolphin Point and at Burrill Lake, in the Shoalhaven local government area, on the NSW South Coast. It is proposed to create an additional 161 lots together with public open space, and areas set aside for environmental protection and civil works, as summarised in the accompanying table.

Stages 2, 3 & 5 have a total site area of 35.61ha, whilst the total development parcel, including Stages 1 & 4 (inclusive of roads - since dedicated to Council) have a total area of 47.19ha. Stage 1 is partly developed and provides 71 existing residential allotments.

PROJECT STAGE	LAND USE: EXISTING/PROPOSED	COVERED BY THIS PART 3A APPLICATION?
Stage 1	Existing residential subdivision- 71 allotments, some already built upon. Zoned 2(c) Residential C. Area 8.05ha.	No. The existing subdivision provides access from the Princes Highway to the remainder of the project.
Stage 2	Proposed 136 allotments, ranging in size from 600m ² to 1,800m ² . Zoned 2(c) Residential C. Area 15.28ha.	Yes. Major project application under Part 3A.
Stage 3	Proposed 25 allotments, ranging in size from 650m ² to 4,500m ² . Zoned 6(b) Open Space (Private) deferred 2(c) Residential C. Area 5.022ha.	Yes. Major project application. Also requires rezoning. Section 65 Certificate issued 21 June 2007.
Stage 4	Vacant land zoned 3(g) Business G (Development Area). Area 3.53ha.	No. The future development of this land parcel is a separate matter from the current Environmental Assessment under Part 3A, and is therefore not further considered.
Stage 5	Land zoned 7(a) Environmental Protection (Ecology) and 6(b) Open Space (Private). Existing forest and wetland vegetation largely falls within area zoned 7(a), with further stands in 6(b) zone. This stage of the project will provide for the protection and enhancement of significant remnant vegetation within the site, associated with further "offset" plantings of wetland vegetation, open space uses. This land is proposed to be dedicated to Council	Yes. Concept plan application.

	following construction of walking/bicycle trails. Refer to conceptual plan of management accompanying this Environmental Assessment report. Area 15.30ha.	
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This document provides an environmental assessment in respect of two major project applications and a concept application for the land. The major project applications provide an environmental assessment of the proposed residential subdivision of the above land and at the same time conserving of the scenic and ecological values of the site.

The majority of the site is currently vacant and used for grazing. The topography of the elevated portions of the site is moderately undulating, and is suitable for residential development. At the base of the hill system are areas of generally flat terrain that are cleared in part, with remnant stands of swamp forest (Stage 5 of the project). Stage 5 will not be developed, but instead, will be set aside for environmental protection and allied purposes, with additional areas proposed to be replanted as an "offset" to small pockets of forest being removed on Residential zoned land nearby. The Stage 5 land is proposed to be dedicated to Council.

In summary, the development site comprises five distinct stages.

Stages 1, 2 and 3 involve residential development, involving a total of 232 allotments.

Stage 1 has already taken place, and is intended to provide vehicular access to stages 2 and 3 and a contextual background to the other stages. The overall subdivision layout has been designed to achieve a sustainable community and environment, adopting the principles of ecologically sustainable development, as well as being consistent with the character of the locality and contributing to an attractive urban environment and landscape setting. The increased traffic flows as a result of the subdivision on the surrounding roads will be acceptable and will not significantly affect the amenity of the locality. The subdivision layout has also provided adequate asset protection zones to mitigate bushfire hazard, with stormwater controls to ensure that impacts on nearby Burrill Lake are minimised, if not improved.

Stage 4, in the northern part of the site, does not form part of the present proposal.

The area identified as Stage 5 contains a variety of natural remnant vegetation, a wetland environment and two dams. It is proposed that the ecological significance of these areas will be retained and conserved, with three small potential development parcels **identified (BUT NOT PROPOSED TO BE DEVELOPED AS PART OF THIS APPLICATION)**, as well as passive open space areas and conservation precincts. This stage of the project comprises one of the

concept plans. A conceptual plan of management for Stage 5 accompanies this report.

The proposed residential lots will be situated on land that is already largely cleared of vegetation. This Environmental Assessment provides a detailed description of the proposed development of the land, as well as a detailed evaluation of the potential environmental impacts of development proposed and measures to mitigate any impacts.

The Environmental Assessment has been prepared in accordance with the Environmental Assessment Requirements of the Director-General of the NSW Department of Planning, which are detailed in Annexure 1. The following table summarises how each of the Director-General's Environmental Assessment Requirements have been fulfilled.

DIRECTOR-GENERAL ENVIRONMENTAL ASSESSMENT REQUIREMENT		RELEVANT SECTION
General Requirements	The Environmental Assessment to include:	
	· an executive summary;	Section 1.0 Executive Summary
	· a description of the proposal, including construction, operation, and staging. The scope of the concept approval must be clearly detailed and should not include any works beyond Stage 2 of the development.	Sections 2.0, 10.0, 11.0, 15.0 & 16.0
	· an assessment of the environmental impacts of the project, with particular focus on the key assessment requirements specified below;	Sections 10.0, 11.0, 15.0, 16.0, 18.0 & 19.0
	· justification for undertaking the project with consideration of the benefits and impacts of the proposal;	Section 16.0
	· a draft Statement of Commitments detailing measures for environmental mitigation, management and monitoring for the project; and	Section 18.0
	· certification by the authors of the Environment Assessment that the information contained in the Assessment is neither false nor misleading.	Section 19.0
Key Assessment Requirements	· Statutory and Other Requirements – All relevant legislation and planning provisions applying to the site; nature, extent and justification for any noncompliance. Where non-compliance results in environmental impacts, consideration of alternative/compensatory works to address the impacts.	Sections 4.0, 5.0, 6.0, 7.0, 8.0, 10.0, 11.0, 12.0, 13.0, 14.0, 15.0, 16.0 & 18.0

	<p>Traffic Impacts (Construction and Operational) – 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 at the junction of the Princes Highway and Wallaroo Drive and the junction of the Princes Highway and Dolphin Point Road. The aaSIDRA program must be used for the modeling and shall consider: 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 and safety impacts associated with the development, such as identification of pedestrian movements and appropriate treatments.</p>	Sections 3.11, 9.4, 10.0, 11.0, 12.1 & 16.5
	<p>Urban Design, Visual Impact and Sustainability – The concept plan for the development shall be prepared in collaboration with an adjoining proposed subdivision at Lot 171 DP 1081810 Highview Drive, Dolphin Point. The plan should address <i>Coastal Design Guidelines for NSW, SEPP 71 and SEPP65</i> in particular: aesthetics; built form; energy and water efficiency; safer by design principles; relationship to surrounding areas; visual impacts from public locations; provision 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>	Sections 6.0, 9.0, 10.0, 11.0, 12.0, 14.0, 15.0, 16.0 & 18.0
	<p>Impact on Infrastructure (Sewerage and Water) – Demonstrate the capacity of existing sewerage and water reticulation systems to support the development. Applicant will need to ensure that any proposal submitted integrates with Shoalhaven City Council's Development Servicing Plan for Water Supply Services and for Sewerage Services. Demonstrate the existing sewerage system's capability to support the development taking into account Ulladulla Sewage Treatment System Environment Protection Licence (No 446) and Licensing Guidelines for Sewage Treatment Systems (EPA, 2003).</p>	Sections 9.3, 11.1 & 16.7

	<p>· Bushfire – Prepare a Bushfire report and demonstrate compliance with the requirements of Section 100B of Rural Fires Act 1997, Section 79 BA of Environmental Planning and Assessment Act 1979, Planning for Bush Fire Protection 2001 and Australian Standard 3959 - Building in Bush Fire Prone Areas. 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, focusing on the level of hazard posed to future development and adjacent land and how the hazard may change as a result of development.</p>	Sections 3.10, 10.11 & 16.8
	<p>· Drainage, Hydrological Regime and Flooding – The Environmental Assessment must include a Stormwater/Hydraulics report addressing drainage issues in accordance with Shoalhaven Planning Policy No.1 Development Guidelines – For Certain Residential 2c Zoned Land (Milton-Ulladulla). Consideration should be given to the natural drainage lines of the site with respect to the subdivision layout. 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>	Sections 3.7, 11.0 & 16.9
	<p>· Impacts on Water Quality and Sedimentation Control – Address potential impacts on quality of surface and groundwater; relevant Statement of Joint Intent established by the Healthy Rivers Commission; demonstrate an acceptable level of water quality protection with respect to Water Quality and River Flow Interim Environmental Objectives detailed in Clyde River and Jervis Bay Catchments. Conduct an assessment of the accumulative impact on Burrill Lake from both a public health (impact on oyster leases) and environmental health perspective. Details of pollution controls to be provided for both during and after construction.</p>	Sections 9.4, 10.8 & 16.10

	<ul style="list-style-type: none"> · Impacts on Waterways and Estuary Management – 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>. This shall include provision of native vegetation riparian zones adjacent to watercourses or wetlands; development of management strategies and actions including the use of water sensitive urban design, assessment of the capacity of the existing sediment basin to service the proposed subdivision, implementation of best practice erosion and sedimentation controls, use of suitable stormwater management provisions to protect the Dolphin Point wetland and maintenance of vegetative buffers and sensitive habitats. 	Section 16.11
	<ul style="list-style-type: none"> · Impacts on Threatened Species and Corridors – Provide a Flora and Fauna study to address the indirect impacts of the development on threatened species and their habitats, such as the threatened orchid (<i>Cryptostylis hunteriana</i>). 	Section 16.12
	<ul style="list-style-type: none"> · Contaminated Land and Acid Sulfate Soils – The Environmental Assessment must include a Site Contamination report in accordance with the provisions of SEPP 55. Address the presence of land contamination. Prepare an Acid Sulfate Soil Management Plan in accordance with the <i>Acid Sulfate Soil Manual</i> by ASSMAC. 	Section 16.13
	<ul style="list-style-type: none"> · Aboriginal Cultural Heritage Values – An Independent Archaeology report must be included in the Environmental Assessment. 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. 	Sections 3.12, 16.14 & 17.1
	<ul style="list-style-type: none"> · General Environmental Risk Analysis – 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. 	Section 18.0
Consultation Requirements	<p>You must undertake an appropriate and justified level of consultation with the following parties:</p> <ul style="list-style-type: none"> · NSW Department of Planning – South Coast Regional Office; · NSW Department of Natural Resources; · NSW Natural Resource Commission; · NSW Roads and Traffic Authority; · NSW Rural Fire Service; · NSW Department of Environment and Conservation; · Country Energy; · Shoalhaven City Council; · Shoalhaven Water; 	Section 17.0

	<ul style="list-style-type: none"> · Local Aboriginal Land Council; and · the local community <p>The Environmental Assessment must clearly indicate issues raised by stakeholders during consultation, and how those matters have been addressed in the Environmental Assessment.</p>	
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A number of specialist studies, consistent with the Director Generals Requirements, have been commissioned to inform the preparation of this Environmental Assessment, copies of which are provided in the attached appendices or under separate cover. The reports include:

- Flora and Fauna assessment, prepared by Bushfire + Environmental Services dated October 2006.
- Bushfire assessment, prepared by Bushfire + Environmental Services dated May 2006.
- Aboriginal Heritage assessment, prepared by South East Archaeology Pty Limited dated May 2005.
- Water Management strategy, prepared by Patterson Britton & Partners Pty Limited dated September 2006.
- Transport report, prepared by Colston Budd hunt & Kafes Pty Limited dated April 2006.
- Urban Design Review, prepared by Urbis JHD dated October 2006.
- Sewerage & Water Infrastructure, prepared by Rygate and West dated July 2007.

2.0 DEVELOPMENT PROPOSAL

The environmental assessment is to provide for a mixed-use development comprising residential and recreational uses in the Burrill Lake / Dolphin Point locality. As part of the environmental assessment, approval is sought to a concept proposal as well as two concurrent project applications.

The concept proposal will allow for future possible passive recreational purposes. As well as this it **identifies** on a preliminary basis, areas that have conservation value.

The purpose of the concept application is to identify environmental constraints, provide a concept proposal for infrastructure to facilitate passive recreational pursuits including walking and cycling. In addition, **whilst it is not proposed that this take place as part of this proposal**, the environmental assessment identifies potential development parcels on the site that will reflect appropriate ecological values as well as contributing to the scenic qualities of the locality. Once the walking/cycling path has been finalised, it is proposed that this be constructed prior to dedicating the entire Stage 5 land parcel to the Council.

The two project applications will allow for the expansion of the residential area of Burrill Lake and Dolphin Point by providing an appropriate subdivision layout in terms of road network, environmental constraints and sympathy with the existing local character.

The subject site enjoys a gateway location on the Princes Highway and delineates the southern most extent of the Burrill Lake / Dolphin Point urban area. The site of the proposal has a total area of 35.61 hectares for Stages 2, 3 & 5. The complete site including Stages 1 & 4 has an area of 47.19 hectares and is generally bounded by the Princes Highway, Dolphin Point Road, Barnunj State Recreation Area and the existing land zoned Residential 2(c) Open Space Recreation 6(b) (deferred 2(c)), Open Space Recreation 6(b) and Environmental Protection 7(a) Ecology under Shoalhaven Local Environmental Plan 1985.

In accordance with Figure 1, the site can be conveniently divided into 5 distinct areas. However it is not intended to necessarily undertake the development in this particular order. For the purpose of this document, the word “stage” identifies a particular component of the concept proposal only. No works are proposed in Stage 4 or Stage 1 as a part of this project. The Environmental Assessment relates to the concept proposal for Stages 2, 3 and 5 as well as two concurrent project applications for Stages 2 and 3. The development of the stages is as follows:

2.1 Stage 1 - Residential Development

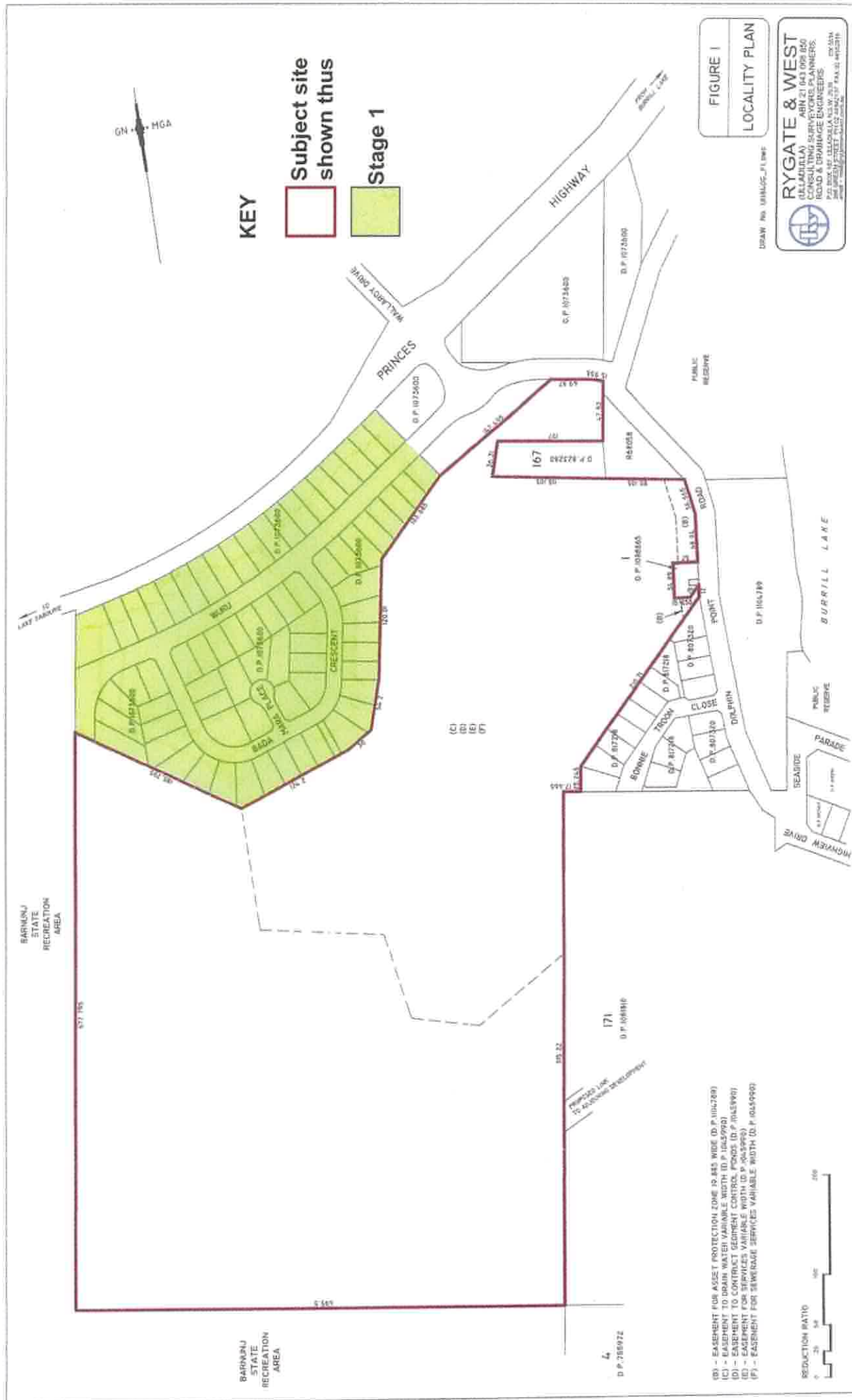
The area identified as Stage 1 in Figure 1 is located to the north west of the subject site and involves an area of 8.05 hectares. Development consent has been granted for land subdivision. Subdivision work in accordance with this development consent has been completed. A total of 71 residential allotments and an associated road network have been created. Access to this part of the site is via a new roundabout at the intersection of Princes Highway and Wallaroy Drive. A second roundabout has been constructed at the intersection of Link Road with Wuru Drive.

The majority of the residential parcels in Stage 1 have already been sold and a number of dwellings have been constructed. Although this part of the site does not form part of the environmental assessment, it is relevant to incorporate reference to this stage to provide a contextual background to the proposal.

2.2 Stage 2 - Residential Development

Stage 2 of the environmental assessment is located to the south east of the subject site and involves an area of 15.28 hectares. This part of the site is currently zoned Residential 2(c) under the provisions of the Shoalhaven Local Environmental Plan 1985. Stage 2 forms part of the concept plan as well as one of the project applications. This area is proposed to be subdivided by Torrens title into residential allotments. Consideration was given to a number of possible subdivision layouts. The subdivision layout selected proposes a total of 136 residential allotments. The allotments have been orientated to take advantage of the outlook as well as providing opportunities to incorporate energy efficiency into the future design of dwellings. The subdivision layout will retain the single dwelling character of Dolphin Point by providing allotments that will range in size from around 600m² to around 1800m². Each allotment will achieve a rectangular building platform of minimum dimensions of 15 metres by 15 metres. The size and shape of the allotments are appropriate for the siting and construction of dwellings, ancillary outbuildings, the provision of private outdoor space and landscaping as well as vehicular access and parking. Consolidation will be possible to facilitate medium density development at a future time.

The road network in the subdivision will be designed in accordance with the Australian Model Code for Residential Development (AMCORD) guidelines as well as the Shoalhaven Council's Engineering Design Specifications. Access to this area will be via the road network already constructed through Stage 1 and a newly created road to be provided in Stage 3.



The road network will provide a clear hierarchy of roads as well as being adequate to cater for the future demand of traffic.

A copy of the proposed subdivision layout for the project application for Stage 2 has been included in Annexure 2. As part of this project application, it is also proposed to include the principle collector road presently located in Stage 3. This road is required to be included in this project application to ensure access to the Stage 2 lands.

Stage 3 – Residential Development

Stage 3 of the development involves an area of 5.022 hectares to the west of the site. This part of the site is located between the residential subdivision of Stage 1 and the proposed residential subdivision in Stage 2. The area of Stage 3 is currently zoned Open Space 6(b) (Private) (deferred Residential 2(c)). A rezoning application has been submitted to Shoalhaven City Council to rezone this area to Residential 2(c) to allow future urban development and a Section 65 Certificate has been issued by the Director General (in June 2007) to allow the draft local environmental plan to be exhibited. The exhibition has now taken place.

As part of the proposal, approval is sought for the Torrens title subdivision layout of Stage 3. This subdivision layout will provide for 25 additional residential allotments and a road network including a collector road. The collector road will provide access to Stage 2 of the development. This stage of the development will provide an important link between stages 1 and 2, not only in terms of access but also visually, in terms of the character of the locality. The subdivision stages provide an amphitheatre like setting around the existing passive open space.

The subdivision layout of stage 3 will vary from allotments with a minimum area of around 650m² to a maximum area of around 4500m². The layout of each allotment will ensure sufficient space for the construction of a future dwelling.

A copy of the proposed subdivision layout for the project application for Stage 3 has been included in Annexure 3.

It is not intended to identify individual allotments in Stages 2 and 3 for medium density development. Medium density development is permitted on all of the allotments zoned Residential 2(c). As indicated earlier, the size and shape of the proposed allotments will allow consolidation and future development for medium density housing depending on market demand.

2.4 Stage 4 – Land Zoned 3(g)

Stage 4 is located to the north of the site with an area of 3.53 hectares. This part of the site is zoned Business 'G' (Development Area) 3(g) under the Shoalhaven Local Environmental Plan 1985. The site is affected by Clause 20B of the Shoalhaven Local Environmental Plan 1985 by virtue of the site being identified in Schedule 14. This clause requires that consent can only be granted to a tourist facility or a use or activity that is an integral part of a tourist facility with some ancillary residential uses. Permitted uses include commercial, retail, tourist accommodation and residential accommodation. This is a matter separate from the current Environmental Assessment and is therefore not further considered.

A development application was recently lodged with Shoalhaven Council that proposes a community subdivision on the land to provide for predominantly tourist accommodation.

2.5 Stage 5 – Land Zoned 6(b) and 7(a)

Stage 5 has an area of 15.30 hectares. This part of the site is zoned part Open Space – Recreation B (Private) 6(b) and part Environmental Protection A (Ecology) 7(a) under the Shoalhaven Local Environmental Plan 1985. The zonings allow for a variety of uses such as caravan parks, tourist facilities and clubs on the 6(b) zoned land and dwelling houses in the 7(a) zoned land.

Stage 5 contains areas of ecological significance and the concept application has focused on the ecological preservation of the area. An urban design review of the Stage 5 land has been completed by Urbis JHD (Annexure 4). The principle objective of the review is to recognise environmental constraints and define potential development parcels on the Stage 5 land. It is to be made clear that the proposal DOES NOT INVOLVE DEVELOPMENT OF THESE LAND AREAS, but merely identifies potential. The development proposal does incorporate creation of a walking and bicycle trail network (refer Figure 2) that is conceptual only. The network has been located to take advantage of the sites attractive natural features and the trail is intended to pass between elements within significant stands of vegetation that are to be managed and maintained. The proposal will avoid the proposed bio retention basin adjacent to Stage 2, wetland areas and locations of Aboriginal cultural significance. It is emphasised that the final location of the trail will be subject to review by various agencies and the public.

The urban design review has identified that future development would be restricted on the majority of this site due to the existing

environmental constraints including the vegetation, the riparian zone adjacent to the watercourse and the dam. With the ecological values of the site being retained, the urban design review has identified 3 potential development parcels on the site with a total area of approximately 2.7ha.

If any development was to occur on this part of the site, it would accord with the objectives and permissible uses contained within Shoalhaven Local Environmental Plan 1985, and subject to further site investigations of such issues as acid sulfate soils, flooding, bush fire buffers and the like. In all likelihood, the future uses may involve low density tourist uses, minor structures such as exercise stations and other passive recreational facilities and bushland rehabilitation. A concept plan showing the proposed location of bicycle/ pedestrian pathways is included in Figure 2.

Residential development is not permitted on land zoned 6(b), however, "tourist facilities" (as defined) are permitted. In the 7(a) zone, a dwelling house is permitted, as are "bed and breakfast establishments" (as defined).

Indicative timing and staging of works and activities within Stage 5 is only at a concept plan level of detail, and very much dependent on the timing of Stages 2 and 3. The following indicative timetables are provided, as set out in the accompanying table.

Proposed Activity/Work Within Stage 5 Area	Likely Timing/Staging
<ul style="list-style-type: none"> • Construction of (temporary) Sediment Basin 1, including sediment fencing, clean water diversion. • Construction of larger (permanent) Sediment Basin 2- water quality pond/wetland. Planting of wetland vegetation. • Construction of gross pollutant traps and outlets. • Periodic inspection and removal of sediment, pollution, replacement of vegetation. 	Construction phase, Stages 2 & 3 of subdivision.
<ul style="list-style-type: none"> • Maintenance of larger (permanent) Sediment Basin 2 and wetland vegetation. • Decommissioning of temporary Sediment basin 1 and construction of a Bio-Retention Basin, located 	At completion of construction phase, Stages 2 & 3 of subdivision. Ongoing maintenance

<p>immediately north of Stage 2 development area- further “offset” plantings in rehabilitated area in vicinity of temporary sediment basin as well as within bio-retention basin.</p> <ul style="list-style-type: none"> • Periodic inspection and removal of sediment, pollution, replacement of vegetation. 	<p>responsibility following completion of Stages 2 & 3 of subdivision</p>
<ul style="list-style-type: none"> • Cleaning out of drainage line/riparian corridor, ongoing inspection and maintenance. 	<p>At completion of construction phase, Stages 2 & 3 of subdivision.</p> <p>Ongoing maintenance responsibility following completion of Stages 2 & 3 of subdivision.</p>
<ul style="list-style-type: none"> • Bush fire asset protection work, construction of fire trails/tracks. 	<p>Construction phase, Stages 2 & 3 of subdivision</p> <p>Ongoing maintenance responsibility following completion of Stages 2 & 3 of subdivision</p>
<ul style="list-style-type: none"> • Landscaping work, including weed removal 	<p>All stages- ongoing maintenance responsibility</p>
<ul style="list-style-type: none"> • Protection of remnant Spotted Gum and remnant Swamp Sclerophyll Forest and other wetland communities, including: <ul style="list-style-type: none"> • Bush fire hazard reduction/asset management zone tree removal. • Weed removal. • Formation of trails/tracks. • Fencing of areas to be protected. • Replanting of “offset” Swamp Sclerophyll Forest. • Restoration of riparian corridor vegetation, drainage works. • Revegetation of bare areas/disturbed areas. 	<p>Perimeter fencing to be constructed around habitats to be retained prior to any earthworks occurring within Stages 2, 3 or 5.</p> <p>Bush fire work, repair of riparian corridor, replanting of “offset” Swamp Sclerophyll Forest, required during construction of Stages 2 & 3.</p> <p>Ongoing maintenance responsibility following completion of Stages 2 & 3 of subdivision.</p>
<ul style="list-style-type: none"> • Potential development of parcels (i), (ii) and (iii) by Council and subject to further 	<p>Subject to further site investigations eg. bush</p>

approvals. Ongoing maintenance of cleared areas.	fire, acid sulfate soils, flooding. After completion of Stage 2/3. Ongoing maintenance responsibility & pending clarification of development potential of each parcel.
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A plan is included in Annexure 5 (courtesy of Patterson Britton & Partners Pty Limited) to clarify the location of the proposed works in Stage 5.

Management protocols for the above activities are set down in the accompanying Conceptual Plan of Management for Stage 5, which forms a part of this report.

3.0 SITE ANALYSIS

3.1 Site Location

The subject site is located in Burrill Lake/Dolphin Point approximately 5kms south of the centre of Ulladulla. The location of the subject site is illustrated in Figure 3. The site and its local and regional context are described in the following sections.

3.2 Local and Regional Context

With an area of 35.61 hectares, the subject site is one of the largest contiguous landholdings within the Burrill Lake/Dolphin Point area. The site enjoys a gateway location on the Princes Highway and delineates the southern most extent of the Burrill Lake/Dolphin Point urban area.

Burrill Lake/Dolphin Point is a small coastal town with a current population of around 1400 persons. The township provides limited retail and commercial infrastructure.

The Princes Highway separates Dolphin Point and Burrill Lake via a narrow land bridge. The Princes Highway is the major north south route connecting Sydney and Melbourne.

Ulladulla is the nearest large town and is located approximately 5 kilometres to the north of Burrill Lake/Dolphin Point via the Princes Highway. Ulladulla is a higher order centre providing a large number of retail and commercial uses.

3.3 Site Description

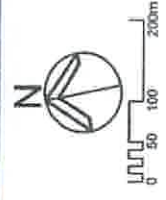
The site is irregular in shape and comprises 3 parcels of land comprising Lot 11 DP 1104789, and Pt. Lot 72 and Pt. Lot 73 DP 1073600 at Dolphin Point and at Burrill Lake, in the Shoalhaven local government area, on the NSW South Coast. The total area of the subject site is 47.19 hectares (including Stages 1 & 4). The area of Stages 2, 3 & 5 for this proposal is 35.16 hectares. Cadastral information in respect of the subject site is provided in Annexure 6. A list of the allotments in respect to the various stages is provided in Table 1.

Property Descriptions

STAGE	LOT & DP NUMBER
2	Part Lot 11 DP 1104789
3	Part Lot 11 DP 1104789
5	Part Lot 72 and 73 DP1073600 Part Lot 11 DP 1104789



aerial photograph



The site is currently owned by Elderslie Property Investments Pty Limited.

The site is generally bounded by Princes Highway, Dolphin Point Road, Barnunj State Recreation Area and additional bushland zoned Residential 2(c) under the provisions of the Shoalhaven Local Environmental Plan 1985.

3.4 Land Use of the Site

The site has previously been used for agricultural activities including a dairy and from time to time crop cultivation in the lower lying areas near the wetland. A large dam is in the approximate centre of the site. Due to the previous agricultural activities a great proportion of the site has been cleared of all vegetation.

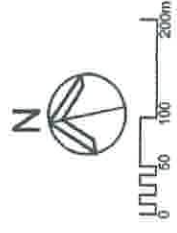
On the western portion of the site identified as Stage 1 in figure 1, a 71-lot subdivision has recently been undertaken. As part of this subdivision development, two roundabouts and a new road have been constructed. Dwelling houses have been erected on many of the subdivided allotments.

Photographs 1 to 8 graphically describe the character of the site.

3.5 Surrounding Land Uses

The site enjoys a gateway location on the Princes Highway and delineates the southern most extremity of the Burrill Lake / Dolphin Point urban area. As demonstrated in Figure 3 the site is also in a position to provide infill development between the urban areas of Dolphin Point and Burrill Lake.

The township of Burrill Lake is located to the immediate north of the subject site. The township of Burrill Lake is generally located between the Lake foreshores and Princes Highway and straddles the entrance channel. A small pocket of development consisting of dwellings and a caravan park is located to the east of the Princes Highway. Dolphin Point Road separates these dwellings and the Caravan Park from the subject site.





1 looking south through the site



2 looking south-east to wetland



3 looking north behind the dam



4 looking north through the site



5 panoramic view looking north across the site



6 looking to the forest from the southern boundary (typical boundary condition to the southern boundary)



7 looking through the site from high ground



8 looking east of the site



9 from princes highway looking to northeast over stage 4

The urban area of South Burrill Lake is located to the north west of the land. As the Princes Highway separates the site and the urban area of South Burrill Lake, it does not form a cohesive urban area but appears as a separate precinct.

To the immediate east, south and west of the site consists of an area that is undeveloped and comprises of that which appears to be natural bushland. The land to the east of the site is described as Lot 171 DP1081810. This land is zoned Residential 2(c) under the provisions of the Shoalhaven Local Environmental Plan 1985. The remaining lands to the south and west form part of Barnunj State Recreation Area.

3.6 Topography

A slope analysis of the site has been provided in Figure 4.

The following observations have been made in regard to the topography of the subject site:

- (i) Much of the subject site comprises of a natural amphitheatre with the wetland environment adjacent to Dolphin Point Road being the lowest point at 1 metre AHD and the southwest corner of the site rising to a maximum of 24 metres AHD.
- (ii) There is a significant amount of low lying land with a slope of less than 1% generally extending southward in a band from the existing wetland environment towards the centre of the site. This area is generally located below the 2-metre contour.
- (iii) From the low-lying area of land identified on the site, the land has a relatively consistent slope toward each boundary of between about 5 and 10%.
- (iv) A ledge with rock outcrop runs adjacent and to the northwest of the low-lying land associated with the wetland environment. This ledge has a slope of over 20% and is relatively low (approximately 1-3 metres).
- (v) The Princes Highway forms a ridge between drainage catchments separating urban development to the west of the highway from the drainage catchment of the subject site.

The residential development as illustrated in the environmental assessment in stages 2 and 3 are confined to those lands with an average slope of between 3 to 10%. The development as proposed is appropriate in respect of the slope category.