

**MAJOR PROJECT ASSESSMENT:
132 LOT RESIDENTIAL SUBDIVISION
LOT 171 DP 1081810
HIGHVIEW DRIVE, DOLPHIN POINT
Proposed by ALLEN, PRICE &
ASSOCIATES**

Director-General's
Environmental Assessment Report
Section 75I of the
Environmental Planning and Assessment Act 1979

MARCH 2009



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EXECUTIVE SUMMARY

This is a report on a project application by Allen, Price & Associates on behalf of the site owners the Ulladulla Local Aboriginal Land Council and their joint venture partners Malbec Properties Pty Ltd to carry out a 132 lot residential subdivision at Highview Drive, Dolphin Point (Lot 171 DP 1081810) ("the proposal").

The proponent proposes the subdivision of land into 130 residential lots, 2 medium density lots, 1 residual lot, the provision of roads, public reserves for drainage, bushland protection and a playground and associated infrastructure. The subdivision is proposed to take place over 7 stages.

The estimated capital investment value of the development is \$6,000,000. The proposal will create 12 fulltime equivalent jobs during construction

During the exhibition period, the Department received a total of 9 submissions from public authorities and 19 submissions from the public. Key issues considered in the Department's assessment included:

- Impacts on Threatened Species
- Impacts on Barnunj State Conservation Area
- Urban Design Visual Impact and Sustainability
- Staging
- Traffic and Access
- Aboriginal Cultural Heritage
- Drainage, Hydrological Regime, Flooding and Impacts of Climate Change
- Impacts on Waterways and Estuary Management
- Bushfire
- Water Supply and Sewerage
- General Environmental Risk Analysis
- Section 94 and Other Contributions

The key issue of impacts on threatened species and appropriate conservation offsets remains unresolved. The Department has met with the proponent and the Department of Environment and Climate Change a number of times over a period of several years and engaged independent ecological consultants in order to resolve this outstanding major issue. The proponent has been requested to address this issue through a redesign of the proposed subdivision layout, however the issue of threatened species impacts and adequate offsets has not been satisfactorily addressed through the Preferred Project Report. In assessing the merits of the project the Department has determined that by modifying the proposal a satisfactory outcome can be reached through the on-site protection of threatened species habitat in the southern part of the site, leaving the majority of the site for residential development. A condition of approval requires the proposal be re-designed in accordance with a plan modified by the Department. Further conditions of approval have been recommended to ensure that impacts related to other Key Issues are addressed.

The Department recommends that the project be approved, subject to conditions.

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1 BACKGROUND

1.1 THE SITE

Site Context And Location

The site, at Highview Drive, Dolphin Point (Lot 171 in DP 1081810) is located within the Sholahaven local government area. The small coastal settlements of Dolphin Point and Burrill Lake are, together, regarded as a coastal village. Dolphin Point is just off the Princes Highway and approximately 6 kilometres south of the major town of Ulladulla on the south coast of NSW. Meroo National Park lies to the west, over the Princes Highway, while Barnunj State Conservation Area adjoins Dolphin Point and the site to the south. The 2006 Census reports that 210 people gave Dolphin Point as their usual place of residence.



Figure 1 - Site location

Existing site features

The site is fully vegetated with mostly good condition native vegetation. The site contains five distinct vegetation communities: Bangalay Swamp Forest; Stringybark–Bangalay Dry Open Forest/Woodland; Scribbly Gum–Bloodwood Woodland; Red Bloodwood Shrubland; and Bangalay Tea-tree Ecotonal Open Forest. The Bangalay Swamp Forest within the study area was determined to comprise the endangered ecological community (EEC) *Swamp sclerophyll forest on the coastal floodplains of the NSW North Coast, Sydney Basin and South East Corner bioregions* as listed under Schedule 1 of the *NSW Threatened Species Conservation Act 1995*. The edges of the site, out to about 10 metres from the northern and eastern boundaries, show signs of vegetation clearing and degradation typically associated with bushland edges along the urban interface.

Five threatened fauna species were detected on the site: the Eastern Freetail Bat; Large-footed Myotis; White-footed Dunnart; Glossy Black Cockatoo; and Osprey. All of these species are listed as vulnerable under Schedule 2 of the *NSW Threatened Species Conservation Act 1995*. A sub-population of the threatened Leafless Tongue Orchid was discovered on site. This orchid is listed as a vulnerable species under the

Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* as well as the NSW *Threatened Species Conservation Act 1995*. One migratory bird species, the Rufous Fantail, listed under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*, was recorded within the study area.

Several drainage depressions which turn into creek lines occur on the site, one in the south-western corner and one in the north-western corner of the site. These drainage depressions are where the EECs occur.

Surrounding development

To the north and east of the site lies the existing residential area of Dolphin Point, with Highview Drive being the main road linking this part of the settlement to the Princes Highway. To the west lies the site of the 164 lot Elderslie subdivision (Elderslie South), a Major Project (05_0016) approved by the former Minister on 12 March 2008. Further to the north-west lies the site of the 99 lot Elderslie subdivision (Elderslie North), (SF9957) approved by Shoalhaven Council on 21 February 2008. To the south lies the Barnunj State Conservation Area.



Figure 2 – Site Context

1.2 SITE HISTORY

The site is owned by the Ulladulla Local Aboriginal Land Council (ULALC). An Aboriginal Land Claim was lodged in 2002 over the former Crown Land and granted to the ULALC in 2004 with ownership being transferred in 2005. The site was zoned Residential 2(c) in 1985 and is currently zoned Part 2(c) Residential (Living Area) and Part 7(a) Environmental Protection (Ecology). The ULALC have entered into a joint venture with Malbec Properties to develop the site.

2 THE PROPOSED DEVELOPMENT

2.1 PROJECT DESCRIPTION

This is an application for approval to carry out a project.

The proponent proposes the subdivision of land into 130 residential lots, 2 medium density lots, 1 residual lot the provision of roads, public reserves for drainage, bushland protection and a playground and associated infrastructure (see **Figure 4**). The subdivision is proposed to take place over 7 consecutive stages as the market demands.

The original EA as exhibited proposed a 142 lot residential subdivision (see **Figure 3**).

2.2 PROJECT AMENDMENTS

A preferred project report (PPR) was submitted on 5 November incorporating the following amendments:

- The exclusion of 2.5 ha of land (the residual lot) from the application, for development at a later stage. Subject to further approval this lot would be capable of being subdivided into approximately 30 lots (see **Section 6** for more detail);
- Revised subdivision layout;
- Reduction in lot yield to 130 residential lots and 2 medium density lots;
- Reduced lot sizes and increased lot density;
- Revised location and width of the collector road; and
- Provision of land for a neighbourhood park.

As the amendments did not amount to a substantial increase in impact no formal public exhibition was deemed necessary. Three adjoining residents in Bonnie Troon Close, adjacent to where an increased density is proposed in the PPR were notified of the changes and were asked to provide comment by the 15 December 2008. The PPR was placed on the Department's web site on 21 November 2008. Figure 3 depicts the original layout as exhibited in the EA and Figure 4 depicts the revised PPR layout.



Figure 3 - Plan exhibited with the EA

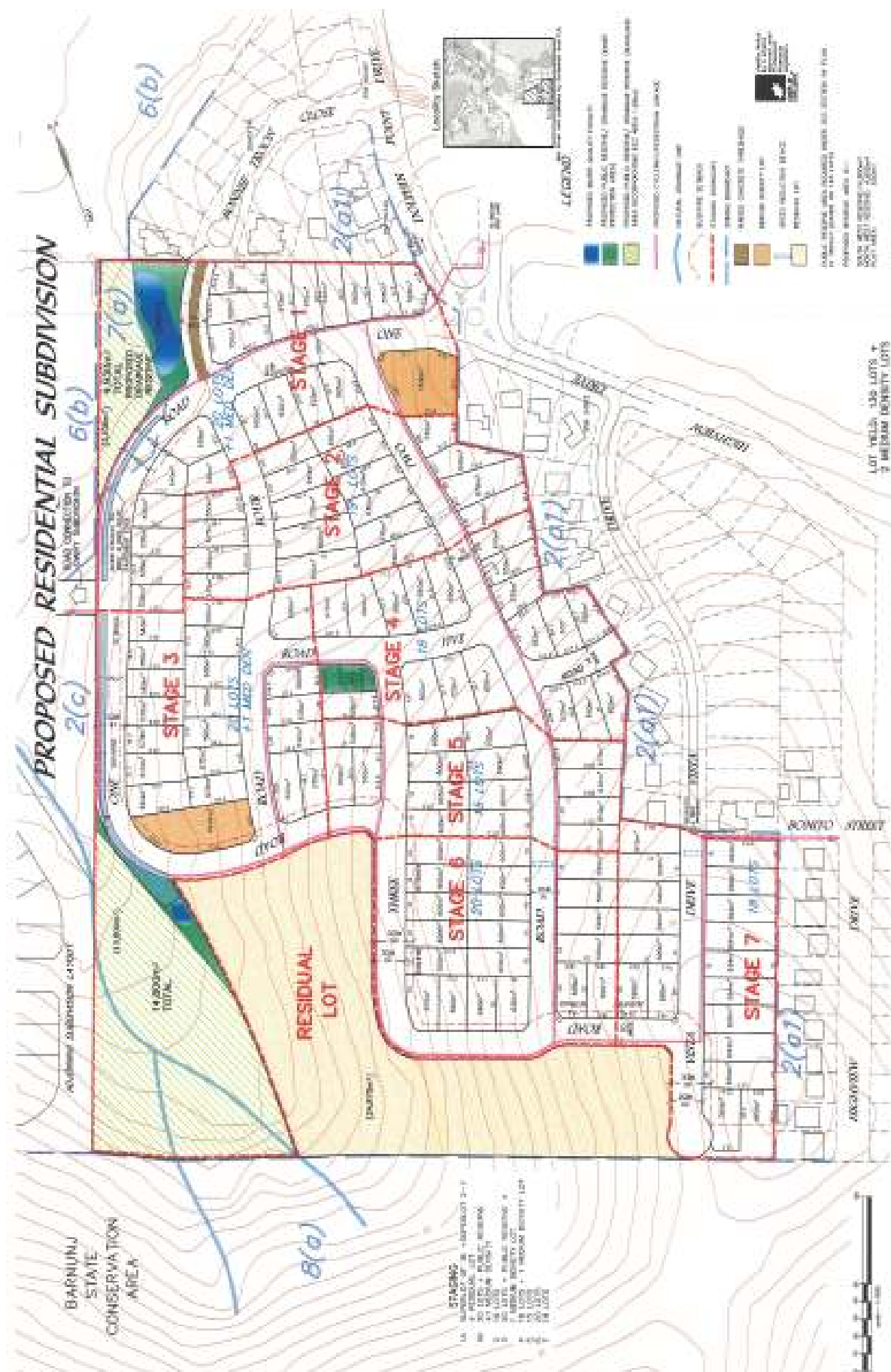


Figure 4 - Preferred Project Layout showing staging boundaries in red and the zoning.

3 STATUTORY CONTEXT

3.1 MAJOR PROJECT DECLARATION

The project is a Major Project under *State Environmental Planning Policy (Major Projects) 2005* being subdivision of land for residential purposes into more than 25 lots in the coastal zone (Schedule 2, 1(1)(j)(i) – Coastal Areas). The opinion was formed by the Director-General, as delegate for the Minister, on 8 November 2005.

3.2 PERMISSIBILITY

Under the *Shoalhaven Local Environment Plan 1985* (SLEP), the site is zoned primarily 2(c) (Residential 'C' (Living Area) Zone). There is a small section of 7(a) (Environmental Protection 'A' (Ecology) Zone) that is intended to protect creek lines and vegetation of conservation value in the north-west of the site. No subdivision of 7(a) zoned land is proposed. Under the provisions of clause 10 of the SLEP development consent is required for subdivision of land. The proposal is consistent with the zone objectives and is permissible subject to the Minister's approval. Future construction of dwellings would be consistent with the zone objectives.



Figure 5 - Zoning boundaries

3.3 EXHIBITION AND NOTIFICATION

The Department has exhibited the Environmental Assessment (EA) in accordance with section 75H (3) of the Act. The project application and Environmental Assessment were placed on public exhibition from 11 October 2007 to 30 November 2007 and submissions were invited in accordance with section 75(H) of the Act. The PPR was accepted by the Department on the 21 November 2008, however the amendments did not amount to a substantial increase in impact so no formal public exhibition was deemed necessary.

3.4 MINISTER'S POWER TO APPROVE

The purpose of this submission is for the Director General to provide a report on the project to the Minister for the purposes of deciding whether or not to grant approval to the project pursuant to Section 75O of the Act. Section 75I(2) sets out the scope of the Director General's report to the Minister. Each of the criteria set out therein have been addressed below, as follows:

(a) a copy of the proponent's environmental assessment and any preferred project report; and

The proponent's EA is included at Appendix F whilst the preferred project report is set out for the Ministers consideration at Appendix E

(b) any advice provided by public authorities on the project; and

All advice provided by public authorities on the project for the Minister's consideration is set out at Appendix D.

(c) a copy of any report of a panel constituted under Section 75G in respect of the project; and

No independent hearing and assessment panel was undertaken in respect of this project.

(d) a copy of or reference to the provisions of any State Environmental Planning Policy (SEPP) that substantially govern the carrying out of the project; and

An assessment of each relevant State Environmental Planning Policies that substantially govern the carrying out of the project is set out in Appendix B.

(e) except in the case of a critical infrastructure project – a copy of or reference to the provisions of any environmental planning instrument that would (but for this Part) substantially govern the carrying out of the project and that have been taken into consideration in the environmental assessment of the project under this Division; and

An assessment of the development relative to the prevailing EPI's is provided in Appendix C.

(f) any environmental assessment undertaken by the Director General or other matter the Director General considers appropriate.

The environmental assessment of the project is this report in its entirety.

(g) a statement relating to compliance with the environmental assessment requirements under this Division with respect to the project.

The **Director-General's Environmental Assessment Requirements** (DGRs) issued on 11 February 2006 (see **Appendix A**). The Department is satisfied that the EA submitted in support of the project application complies with these requirements. A detailed assessment of how the proponent has addressed these issues is provided in **Section 6** of this report.

3.5 ENVIRONMENTAL PLANNING INSTRUMENTS (EPIs)

Application of EPIs to Part 3A of the Act

To satisfy the requirements of section 75I(2)(d) and (e) of the Act, this report includes references to the provisions of the environmental planning instruments that substantially govern the carrying out of the project and have been taken into consideration in the environmental assessment of the project. A detailed assessment of compliance with the relevant EPIs is in **Appendix B**. A summary of compliance is provided below.

The provisions, including development standards of local environmental plans, and development control plans are not required to be strictly applied in the assessment and determination of major projects under Part 3A of the Act. Notwithstanding, these standards and provisions are relevant considerations as the DGRs require the proponent to address such standards and provisions. Accordingly the objectives of a number of EPIs and the

development standards therein and other plans and policies that substantially govern the carrying out of the project are appropriate for consideration in this assessment as follows:

State Environmental Planning Policy (Major Projects) 2005

The Major Projects SEPP applies to the site. The proposal achieves the Major Project criteria in the Major Project SEPP, being the subdivision of land in a residential zone creating more than 25 lots in the coastal zone. This is discussed in more detail in Section 3.1 of this report.

State Environmental Planning Policy No. 71 – Coastal Protection (SEPP 71)

SEPP 71 applies to the land and development within the coastal zone (clause 4) as defined by the *Coastal Protection Act 1979*. The subject site is located within the coastal zone. SEPP 71 provides aims of the Policy (clause 2) and matters for consideration (clause 8) when assessing development proposals. The Policy has been made to ensure that development in the NSW coastal zone is appropriate and suitably located, there is a consistent and strategic approach to coastal planning and management and there is a clear development assessment framework for the coastal zone. The major themes of SEPP 71 include retention of visual amenity, protection of the coastal foreshore in relation to amenity, public access, wildlife corridors, water quality, views, items of heritage and suitability of development within the area. The proposal is considered to be generally consistent with the provisions of SEPP 71 subject to the proposed amendment to the proposal to reduce the extent of development and provide conservation of threatened species habitat. This is discussed in more detail at **Appendix B**.

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

SEPP 11 has now been repealed, however it is relevant to this project as the SEPP was in force at the time of project lodgement. Schedule 2 of SEPP 11 applies to subdivision of land into 50 lots or more. The Policy aims to provide the RTA an opportunity to make representations in respect of developments which are significant generators of traffic. In this regard, the proposal was referred to the Local Traffic Committee in which the RTA is represented. The application was also referred directly to the RTA and their response is discussed in more detail in Section 4 of this report.

State Environmental Planning Policy No. 44 – Koala Habitat Protection (SEPP 44)

The aims of SEPP 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 by requiring the preparation of plans of management, identification of areas of core koala habitat and the inclusion of areas of core koala habitat in environment protection zones. The site does not contain tree species listed as koala feed trees on Schedule 2 of the SEPP therefore, no further consideration is required.

State Environmental Planning Policy No. 55 – Remediation of Land (SEPP 55)

The aim of SEPP 55 is to provide for remediation of contaminated land for the purpose of reducing the risk of harm to human health or the environment and requiring that any remediation work meets certain standards and notification requirements. There is no evidence that the site is contaminated.

Illawarra Regional Environmental Plan No. 1

The broad aims of the Plan are to meet individual and community economic and social needs as they are related to the allocation, availability, accessibility and management of the region's land resources. Specifically, the objectives of the Plan as they apply to development of "living areas" are to ensure that urban expansion is orderly and efficient having regard to the constraints of the natural environment; sufficient land is available to prevent price rises resulting from scarcity of land, and new residential land 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; and to provide for a range of lot sizes, to ensure that residential development does not take place on hazard-prone lands, and to minimise bush fire risks to urban development. The issues are discussed in more detail at **Appendix B**.

Shoalhaven Local Environmental Plan 1985 (SLEP 1985)

The SLEP 1985 sets the broad planning framework for development in the Shoalhaven City local government area and establishes permissible forms of development and land use which will be permitted in the area. The

SLEP 1985 zones the site as Residential 2(c) and part 7(a) (Environmental Protection 'A' (Ecology) Zone). The objectives of the 2(c) zone are "to provide for new residential areas with a range of housing types with provision for urban facilities to serve the local community." The objectives of the 7(a) (Environmental Protection 'A' (Ecology) Zone are to 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. Soil, Water and Effluent Management (clause 26) and Bushfire Prone Land (clause 28) are relevant considerations for the proposal. The minimum subdivision area for the 7(a) land is 40ha. No 7(a) land is proposed to be subdivided. All 7(a) zone land is to be retained in one allotment, which matches the zone boundary. The proposal is wholly permissible with the SLEP 1985. The proposal is consistent with the provisions of the SLEP 1985. The issues are discussed in more detail at **Appendix B**.

3.6 OTHER PLANS AND POLICIES

The Proposal has been considered against the following non-statutory documents:

Shoalhaven Development Control Plan 52 – Dolphin Point

DCP 52 applies to the Dolphin Point area and was initiated by Council in order to provide more detailed traffic development control for the subject land and the adjacent Elderslie land. Clause 6 Traffic Management, clause 7 Environmental Controls and clause 12 Section 94 Contributions are relevant to the current assessment. These issues are discussed in more detail in **Appendix B**.

Shoalhaven Planning Policy No. 1(SPP1) - Development Guidelines for certain Residential 2(c) zoned land- Milton /Ulladulla

SPP 1 relates to the subject land and provides general and area-specific urban form requirements. Sections 4 and 5 are relevant to the current assessment. These issues are discussed in more detail in **Appendix B**.

Burrill Lake Estuary and Catchment Management Plan

The Burrill Lake Estuary and Catchment Management Plan provides a comprehensive and integrated set of strategies to enhance, protect and conserve the natural resources of Burrill Lake and its catchments so as to ensure that its use is ecologically sustainable in the long term. The management areas of Water Quality, Erosion and Sedimentation, Water Flow, Flooding, Nature Conservation, Recreation and Tourism, Visual Quality, Cultural Heritage area all relevant to the current assessment and are discussed in more detail in **Appendix B**.

Development Control Plan 100 – Subdivision Code (DCP 100)

DCP 100 applies to subdivision in the Shoalhaven Local Government Area. Among the aims of the DCP is to encourage high quality urban design and residential amenity, to provide a design approach for residential subdivision, and to provide for the ecologically sustainable subdivision of land. The DCP outlines "Performance Criteria" and "Acceptable Solutions" that could be used to achieve the objectives of various controls of a subdivision. The relevant controls of the DCP include public open space (Element RE7), street design (Element RE8), stormwater (Element RE11) and allotment layout (Element RE14). Although not an EPI, the objectives and relevant planning controls of the DCP are considered relevant to the current assessment. The issues are discussed in more detail in **Appendix B**.

South Coast Regional Strategy

The primary purpose of the Regional Strategy is to ensure that the significant natural and scenic assets that define the region's character and underpin its economy are not compromised by growth. It will do this by ensuring that land is available in appropriate locations to sustainably accommodate the projected population growth and associated housing, employment and environmental needs over the next 25 years. The Strategy sets 'Outcomes' and 'Actions' for various components including the natural environment, natural hazards, housing and settlement, economic development and employment growth, rural landscape and rural communities. The issues are discussed in more detail at **Appendix B**. The *South Coast Regional Strategy* nominates that the Shoalhaven local government area will need to provide an additional 26,300 dwellings over the next 25 years. The Strategy notes that although the Region is well-supplied with vacant urban land to cater for this future demand the supply needs careful management to ensure sustainability of future communities as a

number of the areas of supply are in isolated and sensitive locations not well serviced by major towns, such as Dolphin Point. The proposal is consistent with the South Coast Regional Strategy in that it will contribute to achieving the dwelling targets in the region.

NSW Coastal Policy 1997 and NSW Coastal Design Guidelines

The *NSW Coastal Policy 1997* responds to the fundamental challenge to provide for population growth and economic development without placing the natural, cultural, spiritual and heritage values of the coastal environment at risk. The Policy is based on the principles of ecologically sustainable development and addresses a number of key coastal themes including population growth, coastal water quality issues and establishing a comprehensive and representative system of reserves. The *NSW Coastal Design Guidelines* aim to ensure that future developments and redevelopments are sensitive to the unique natural and urban settings of coastal places in NSW. The Guidelines provide an urban design focus for the coastal context. The coastal policies and guidelines are relevant legislation and planning provisions applying to the site. The issues are discussed in more detail at **Appendix B**.

3.7 ECOLOGICALLY SUSTAINABLE DEVELOPMENT (ESD) PRINCIPLES

There are five accepted ESD principles:

- (a) decision-making processes should effectively integrate both long-term and short-term economic, environmental, social and equitable considerations (the integration principle);
- (b) if there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation (the precautionary principle);
- (c) the principle of inter-generational equity - that the present generation should ensure that the health, diversity and productivity of the environment is maintained or enhanced for the benefit of future generations (the inter-generational principle);
- (d) the conservation of biological diversity and ecological integrity should be a fundamental consideration in decision-making (the biodiversity principle); and
- (e) improved valuation, pricing and incentive mechanisms should be promoted (the valuation principle).

The Department has considered the proposed development in relation to the ESD principles and has made the following conclusions:

- **Integration Principle** - The Integration Principle has been considered with the design providing appropriately for both the short and long term protection of sensitive environments, allowing for appropriate connections with the existing residential community and ensuring an equitable access throughout the subdivision.
- **Precautionary Principle** - The precautionary principle has been used in consideration of the potential effects of climate change on the bushfire and flooding hazards on the site.
- **Inter-Generational Principle** - The Intergeneration Principle has been considered, with the long term protection and management of ecologically important areas of the site, including riparian corridors, Endangered Ecological Communities (EECs) and threatened species habitat ensuring the protection of these natural resources for the future. The use of appropriate design to minimise the impact of stormwater runoff and minimise water and energy use through stormwater harvesting and appropriate orientation of lots will also ensure future generations are not unnecessarily burdened.
- **Biodiversity Principle** - The Biodiversity Principle has been considered in the protection and management of EECs, riparian corridors and threatened species habitat on the site, ensuring an appropriate connection between these areas, the adjoining nature reserve to the south and the important habitat areas and riparian corridors on the adjoining site to the west.
- **Valuation Principle** - The Valuation Principle has been considered with the siting of lots and water sensitive design providing pricing incentives for provision of rainwater tanks and passive solar designed dwellings.

The EA explores key ESD opportunities, including appropriate water sensitive design, protection of riparian corridors along creeklines, protection and management of EECs on the site and appropriate subdivision layout with regard to orientation to allow passive solar design.

3.8 OBJECTS OF THE ENVIRONMENTAL PLANNING AND ASSESSMENT ACT 1979

The objects of any statute provide an overarching framework that informs the purpose and intent of the legislation and gives guidance to its operation. The Minister's consideration and determination of a project application under Part 3A must be informed by the relevant provisions of the Act, consistent with the backdrops of the objects of the Act.

The objects of the Act in section 5 are as follows:

- (a) to encourage:
 - (i) the proper management, development and conservation of natural and artificial resources, including agricultural land, natural areas, forests, minerals, water, cities, towns and villages for the purpose of promoting the social and economic welfare of the community and a better environment,
 - (ii) the promotion and co-ordination of the orderly and economic use and development of land,
 - (iii) the protection, provision and co-ordination of communication and utility services,
 - (iv) the provision of land for public purposes,
 - (v) the provision and co-ordination of community services and facilities, and
 - (vi) the protection of the environment, including the protection and conservation of native animals and plants, including threatened species, populations and ecological communities, and their habitats, and
 - (vii) ecologically sustainable development, and
 - (viii) the provision and maintenance of affordable housing, and
- (b) to promote the sharing of the responsibility for environmental planning between the different levels of government in the State, and
- (c) to provide increased opportunity for public involvement and participation in environmental planning and assessment.

Of particular relevance to the assessment of the subject application is consideration of the Objects under section 5(a). Relevantly, the Objects stipulated under section 5(a) (i), (ii), (ii), (iv), (v), (vi), (vii), (viii) are significant factors informing the determination of the application.

With respect to ESD, the Act adopts the definition in the *Protection of the Environment Administration Act 1991* including the precautionary principle, the principle of inter-generational equity, the principle of conservation of biological diversity and ecological integrity, and the principle of improved valuation, pricing and incentive mechanisms.

The Department has considered the Objects of the Act, including the encouragement of ESD in the assessment of the project application. The balancing of the project in relation to the Objects is provided in **Section 6**.

4 CONSULTATION AND ISSUES RAISED

4.1 PUBLIC EXHIBITION DETAILS

The major project application was exhibited for 52 days from 11 October 2007 to 30 November 2007. Notification of the exhibition was given in an advertisement in:

- The Milton-Ulladulla Times

Exhibition locations were at:

- Department of Planning, Bridge Street, Sydney
- Nature Conservation Council, Kent Street, Sydney
- Shoalhaven City Council Offices in Nowra and Ulladulla

The EA was also provided for download on the Department's website.

Letters were sent to 197 adjoining owners and 10 public authorities notifying of the Exhibition and inviting a submission.

A total of 28 submissions were received, comprising 19 submissions from the public and 9 from public authorities being:

1. Shoalhaven City Council
2. Shoalhaven Water
3. Department of Water and Energy
4. Department of Environment and Climate Change
5. Rural Fire Service
6. Department of Primary Industries
7. Roads and Traffic Authority
8. Department of Education
9. Department of Health

The 19 submissions from the public included 18 letters of objection, mainly from Bonnie Troon Close, Dolphin Point and 1 letter of support. Of the public authority submissions, three of the nine submissions raised concerns, however these have been addressed in the Preferred Project Report or by conditions of approval.

A Preferred Project Report (PPR) was lodged on 5 November 2008 and was accepted as adequate by the Department on 21 November 2008 and as the changes to the nature of the project were not significant, it was not re-exhibited but was placed on the Department's website. Due to some changes in the subdivision layout additional lots were to be located behind three existing houses. The three adjacent landowners most affected by changes made in the PPR were advised in writing and allowed 21 days to provide comment on the changes made to the PPR. No responses were received.

4.2 SUBMISSIONS FROM THE PUBLIC

The following issues were raised in the public submissions:

- Traffic
- Overdevelopment
- Impact on Flora and Fauna
- Socio-economic
- Community facilities
- Design
- Aboriginal Heritage
- Infrastructure

Traffic and Flora and Fauna were the main issues of concern. An assessment on the key issues from the above list is in **Section 6** of this report.

A summary of all submissions received can be found in **Appendix D**. The proponent responded to these submissions on 5 November 2008 and the proponent's response to submission is in **Appendix E**.

4.3 SUBMISSIONS FROM PUBLIC AUTHORITIES

The following submissions were received from public authorities:

Shoalhaven City Council

The Shoalhaven City Council submission raised a number of issues, including:

- Provision of medium density lots
- Retention and Management of Endangered Ecological Communities and threatened species habitat
- Solar orientation
- Bushfire management
- Burrill Lake Estuary and Catchment Management Plan
- Waste management
- Subdivision layout and internal road network
- External road network impacts
- Public transport provisions
- Pedestrian and cyclist provisions

These issues are discussed in further detail in **section 6**.

Shoalhaven Water

Shoalhaven Water advised that the proposal can be supported by water supply and sewerage systems.

Department of Water and Energy

The Department of Water and Energy (DWE) raised concerns about the extent of clearance of native vegetation on the site and of the impact of the proposal on riparian corridors. DWE recommended that plans be provided showing the proposed riparian corridors as measured from top of bank and that all residential development, associated infrastructure and the Inner Protection Area (IPA) of any Asset Protection Areas (APZs) be located outside of the riparian corridor. These issues are further discussed in **section 6**.

Department of Environment and Climate Change

The Department of Environment and Climate Change (DECC) provided detailed comments on this proposal. DECC has consistently maintained that the proposal will have an unacceptable impact on threatened species known to use the site and that there would also be impacts on the adjacent Barnunj State Conservation Area. DECC has advised that mitigation and offsetting as proposed is inadequate. These issues are further discussed in **section 6**.

DECC commented that there appeared to be no issue with respect to impacts on Aboriginal Cultural Heritage. On coastal, estuary and floodplain issues DECC made the comment that the proposal should implement WSUD, provide adequate protection to riparian zones and be consistent with the objectives of the Burrill Lake Estuary and Catchment Management Plan.

Rural Fire Service

The Rural Fire Service (RFS) raised no objections to the proposal, subject to conditions. As the Department proposes to amend the subdivision layout to provide a reserve area for threatened species habitat the revised layout was referred to the RFS for comment. The RFS responded that with the maintenance of appropriate

asset protection zones the amended layout would be acceptable. Updated recommended conditions were provided.

Department of Primary Industries

The Department of Primary Industries comments related to water quality issues. The DPI recommended that water sensitive urban design (WSUD) measures as proposed in the proponents Water Cycle Management Report be carried out in full, that audits be undertaken of sediment and erosion controls during construction and that water quality monitoring be undertaken downstream of the site to ensure water quality targets are met. These issues are further discussed in **section 6**.

Roads and Traffic Authority

The Roads and Traffic Authority (RTA) raised no objections to the proposal.

Department of Education and Training

The Department of Education and Training (DET) made the comment that the proposal will require an additional primary school class group and one to two secondary school class groups.

Department of Health

The Department of Health made the comment that existing and planned health service developments will adequately cater for the small expected impact on health services of the proposal.

5 ASSESSMENT OF ENVIRONMENTAL IMPACTS

Key issues considered in the Department's assessment of the Environmental Assessment, Preferred Project Report and consideration of the proponent's draft Statement of Commitments include the following:

- Impacts on Threatened Species
- Impacts on Barnunj State Conservation Area
- Urban Design Visual Impact and Sustainability
- Staging
- Traffic and Access
- Aboriginal Cultural Heritage
- Drainage, Hydrological Regime, Flooding and Impacts of Climate Change
- Impacts on Waterways and Estuary Management
- Bushfire
- Water Supply and Sewerage
- General Environmental Risk Analysis
- Section 94 and Other Contributions
- Comments on the Statement of Commitments

5.1 IMPACTS ON THREATENED SPECIES

The proposal will involve the clearing or disturbance of approximately 14.54 ha of relatively undisturbed native vegetation. The site is habitat for a substantial range of threatened species and ecological communities (see **Figure 6**). The proponent undertook surveys over three years using three different ecological consultants and as a result has collected a large amount of data on the ecological attributes of the site and the adjoining Barnunj State Conservation Area (SCA).

Threatened fauna surveyed on the site included the:

- White-footed Dunnart;
- Glossy Black Cockatoo;
- Eastern Freetail Bat;
- Large-footed Myotis; and
- the Osprey.

Threatened flora and ecological communities surveyed on the site included the:

- Leafless Tongue Orchid
- Swamp Sclerophyll Forest on Coastal Floodplains

Summary of discussions between the proponent and the Department of Planning and Department of Environment and Climate Change and assessment of this issue.

During provision of Key Issues for the Director-General's Requirements in January 2006 the Department of Environment and Climate Change (DECC) stated that it was highly likely that not all of the site would be suitable for residential development as the site was known to contain high biodiversity values, some of which should be conserved on the site. The proponent's initial flora and fauna studies found that a number of threatened species inhabited the site. The proponent met with and corresponded with DECC on a number of occasions between June and September of 2006. DECC stated that the draft subdivision plan which they were presented with was not acceptable due to the impacts on threatened species. The DECC suggested that habitat be retained on-site (a suggested area was depicted on a plan, however the clarity is not sufficient to reproduce here) or suitable off-site offsets for the species whose habitat will be destroyed would need to be provided to ensure that populations are maintained or improved.

The proponent did not accept DECC's argument on the importance of the site for threatened species and instead considered that the plan of subdivision exhibited in the EA (see **Figure 3**) met the 'maintain or improve'

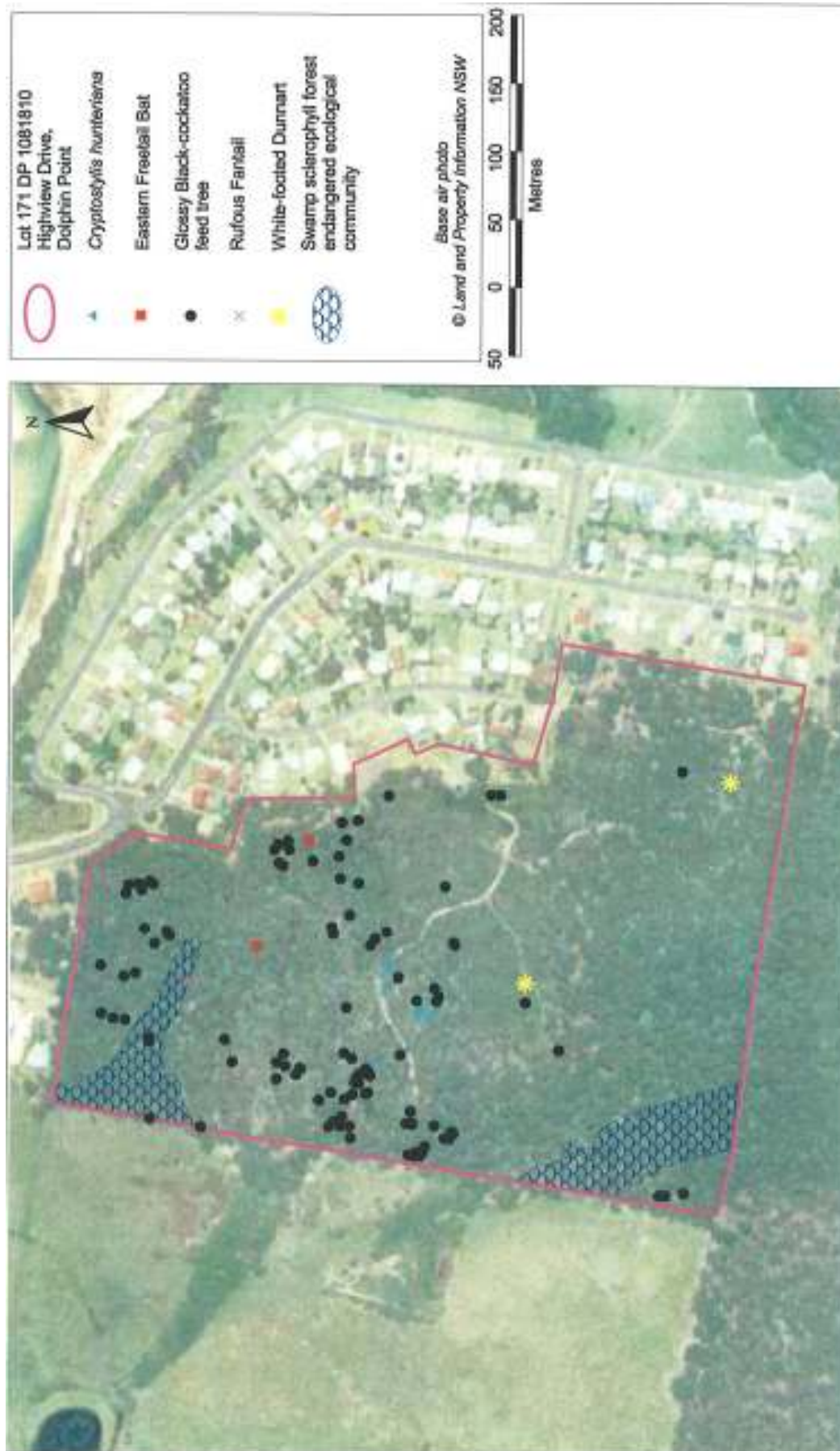


Figure 6 - Species and communities of conservation significance.

biodiversity threshold. The proponent stated that the proposal responded to the threatened biodiversity issues of the site by avoiding disturbances to some areas of conservation significance, and incorporating local area offset proposals (funding management plans and rehabilitation within the adjoining reserve and translocating individuals of threatened species from the site into the reserve), in the context of the impacts of such actions on the economic and social viability of the proposal.

An assessment of the impact on individual threatened species is provided below. The Department and DECC suggested that further surveys for, in particular the threatened Leafless Tongue Orchid and the White-footed Dunnart may help determine their local significance and potentially reduce the level of offset required for these species. These further surveys were carried out in the spring of 2007 and the summer of 2007 and 2008 and detail on the results is provided below, however in summary, the surveys resulted in no further Dunnart captures either on-site or within the adjacent Barnunj SCA. The surveys did however result in the discovery of a large number of Leafless Tongue Orchids within Barnunj SCA, although further surveys for the Orchid were not carried out on site at the same time. DECC stated that the surveys confirmed the significance of the site for the White-footed Dunnart and, due to the large number of Leafless Tongue Orchids found within Barnunj SCA, allowed the loss of some scattered individuals within the site to development, while still maintaining the bulk of the population. The Department requested the proponent to provide a response to submissions received during the exhibition and provide a Preferred Project Report that modified the subdivision layout to protect threatened species habitat on-site.

The proponent stated in the PPR that they did not accept the requirements of DECC with respect either to the necessity of achieving a 'maintain or improve outcome' or to the necessity for a reduction in the development footprint to achieve appropriate biodiversity conservation outcomes. It is the position of the proponent that:

- *'there will not be a "significant effect" or a significant impact imposed upon any threatened biota as a consequence of the development as proposed, as documented by the various ecologists associated with the project;*
- *the measures proposed by the proponent (particularly by way of financial support for biodiversity and conservation outcomes on adjoining lands, including Barnunj SCA which is currently poorly managed) provide an appropriate balance to development on the subject site as currently proposed; and*
- *the retention of part of the site for conservation purposes would be of only limited value because the resources to be retained are not of particular significance (given their distribution throughout the landscape generally) and because those areas would be surrounded on three sides by urban development and would therefore be highly susceptible to adverse impacts arising from that development.'*

The proponent further stated that *'the Barnunj SCA and Meroo NP, which abut the subject site and occupy substantial lands to the south and west, include a total of 3,731ha of conservation reserves. In addition, there are a further 12,000ha of National Park to the south (Murramarang NP and NR and several additional small reserves) and several thousand hectares of reserves to the north (including Conjola NP and Narrawallee Creek Nature Reserve). These reserves contain substantial areas of potentially suitable habitat for both the White-footed Dunnart and the Leafless Tongue Orchid, as well as for the other relevant threatened species considered in this Report. The requirement, therefore, of the DECC to restrict development on the subject site in an area occupying just a few hectares, at the periphery of extensive conservation reserves and surrounded on three sides by residential development, appears inappropriate, unwarranted and unreasonable.'*

In reviewing the PPR DECC maintained that the proposal would significantly impact on threatened species and their habitat and that the proposal does not achieve a 'maintain or improve' outcome. DECC provided a map to indicate the areas of the site that would need to be excluded from development to achieve a 'maintain or improve' outcome (see **Figure 10**).

In the Department's assessment of this issue it was concluded that the proponent had failed to appropriately address the issue of threatened species impacts and had not provided any suitable conservation offset. The Department agreed with DECC that an on-site conservation offset was required, however the Department believes that the DECC recommended development exclusion area requires modification to ensure that threatened species habitat is conserved while at the same time providing a subdivision design that also allows a reasonable lot yield and provides a viable corridor linking the Barnunj SCA with Burrill Lake, through the development exclusion area on site and environment protection zoned land on the adjoining site to the west.

The Department proposes that, by conditions of approval, a 6.2 hectare Conservation Reserve (see **Figure 9**) is created within the south-west of the site, which will conserve habitat for the threatened White-footed Dunnart, the Leafless Tongue Orchid, the Swamp Sclerophyll Forest on Coastal Floodplains Ecological Community, the Eastern Freetail Bat and the Glossy Black Cockatoo. An assessment of the impact of the proposed subdivision on particular threatened species is set out below.

White-Footed Dunnart



image: Dr Milton Lewis.

The White-footed Dunnart (*Sminthopsis leucopus*) is a small mouse-like marsupial carnivore that feeds mainly on ground-dwelling invertebrates. The Dunnart is found along the NSW coast, east of the Great Divide. It reaches the northern limit of its distribution in the Shoalhaven LGA. The Dunnart has a patchy distribution and where it occurs it is in low densities. It appears to favour vegetation that has an open understorey and can be found in coastal dune vegetation, coastal forest, tussock grassland and sedgeland, heathland, woodland and forest. Adult females have small home ranges and roam up to 80m, while adult males have home ranges on average 100m in length but may make explorations up to 1km. It is listed under Schedule 2 of the *Threatened Species Conservation Act 1995* as a Vulnerable species. Predation by cats and dogs and land clearing for residential development are two of the known threats to this species.

The proponent conducted extensive trapping and hair-tube surveys on the site in 2006, resulting in two captures of female White-footed Dunnarts in February 2006. The captures were 250m apart.

At a meeting between the Department, the proponent and DECC in August 2007, prior to the EA being exhibited, DECC advised that further survey work was required to determine how significant the Dunnart population was within the local area. DECC suggested that if more than three White-footed Dunnarts were able to be found elsewhere in the local area then the population on the site would not be considered significant, however if no further Dunnarts were found an mitigation/offset package would be required for the removal of the Dunnart habitat on site in order to ensure a 'maintain or improve' outcome.

Extensive further trapping was undertaken in the adjacent Barnunj SCA by the proponent in the spring of 2007 and summer of 2007-2008 in an attempt to locate a secure population of the White-footed Dunnart.

The proponent stated in the EA that: the site does not appear to provide habitat for a large population of the species as only two captures were made despite a very intensive trapping effort using a combination of suitable trapping techniques, but the species is known to occur in very low densities across its range. The proponent believed that the adjacent Barnunj SCA provided over 2000 ha of suitable habitat for the species.

The proponent went on to say that it may be possible to retain White-footed Dunnart habitat on the site by retaining the vegetation within 80-100m of the capture locations on the site and linking this vegetation to the Barnunj SCA, however the proponent stated that this option would constrain the economic viability of the proposal and was not considered further. Instead a mitigation/offset package was proposed in the EA consisting of funding, up to a total of \$15,000, to develop and implement an appropriate translocation and

management plan for the White-footed Dunnart in Barnunj SCA. The implementation of such a plan would be likely to include:

- a) surveys, mapping and appropriate management of the species preferred habitat;
- 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;
- f) translocation of White-footed Dunnart individuals from the site to vacant suitable habitat within Barnunj SCA; and
- g) monitoring of any identified White-footed Dunnart population for a period of three years.

After the EA was exhibited the proponent was asked to provide a response to submissions from agencies and the public and to provide a modified plan to protect threatened species habitat on the site. The PPR provides a modified lot layout including a 2.48 ha residual lot. The PPR describes the residual lot as the area in which the White-footed Dunnart was located and states that development on this lot is to be deferred to a later date pending further investigation.

With respect to the White-footed Dunnart the proponent states that:

- the subject site does not in its current condition represent suitable habitat for this species, and would only contain suitable habitat in the short period following a bushfire;
- there are substantial areas of potential habit for this species within Barnunj SCA and elsewhere (including within Meroo National Park), particularly in areas of heath or dry open forest where bushfire is prevalent and in those patches which have been recently burnt;
- any habitat for and/or part of a population of the White-footed Dunnart which is present (or which was present) on the subject site at Dolphin Point would constitute only a very minor part of any such population, and is in addition located at the periphery of the main population of that species;
- the White-footed Dunnart is a highly mobile and nomadic species, which moves between areas of suitable habitat, particularly following fire; and
- management of the subject site (even if retained in part for this species) would be somewhat problematic given the proximity of residential development and the fact that the site will be surrounded on three sides by residential development.

DECC advice

According to DECC it is probable that the Dunnart captures were separate individuals due to the distance between the captures. DECC consider the population of White-footed Dunnart on the site as highly significant. DECC stated that the offset package was insufficient and did not provide a 'maintain or improve' outcome. Many of the measures that were to be provided as part of the offset package are required to be done anyway by the Parks and Wildlife Group of the DECC, as land managers of the Barnunj SCA.

DECC state that the proponents claims that there are substantial areas of potential habitat available within local National Parks cannot be substantiated as the species has been very infrequently encountered despite the large number of ecological surveys conducted on the South Coast over recent years and any location should be regarded as significant. There is very little known about the reservation status of the species. DECC provided maps showing locations of White-footed Dunnart captures over the last 15 years in the Shoalhaven area, showing that these locations are very localised, with no other captures in the south of the Shoalhaven within that time (see **Figure 7**).

DECC state that the proponents claim that the site does not in its current condition represent suitable habitat for the species is incorrect and cannot be validated. DECC provided references of a number of scientific journal articles that supported their statement.

DECC state that in contrast to the proponent's claim the 16 ha site could potentially support 8-26 discrete White-footed Dunnart home ranges based on average home range sizes of 0.6-2.0 ha for females in heathland.

DECC provided plans of the subdivision proposal showing recommended development exclusion areas in order to protect the habitat of the Dunnart and other threatened species on-site. One layout depicted the area

required to be protected in the event no Dunnarts were found in Barnunj SCA and a second design depicted a smaller area required to be protected if a Dunnart population was found in Barnunj SCA.

Consideration

The Department engaged an independent ecological consultant to provide detailed ecological advice on the White-footed Dunnart and to review the EA and the proponents offset package. The review was completed in June 2008 and advice received was that the proposal was likely to have a significant impact on the White-footed Dunnart by reducing the long-term viability of the local White-footed Dunnart population through the removal of all Dunnart habitat on site. The proposed offset package was thought to be insufficient and did not assist in maintaining or improving the biodiversity values of the site.

It is clear from research articles, DECC advice and from capture locations of the Dunnart on the site that most of the site, apart from the wetter drainage line/EEC areas, is potential White-footed Dunnart habitat. It may be the case that further suitable habitat exists in the adjacent Barnunj SCA, as the proponent purports, however the White-footed Dunnart is very uncommon and is found in low densities when it is found, so the fact that the Dunnart was captured on the site and not in Barnunj SCA, despite intensive survey lend support to the DECC assertion that the captures are highly significant.

The proposal does not protect White-footed Dunnart habitat and, according to DECC and the Department's ecological consultant, the proposed offset package is inadequate to offset the removal of known White-footed Dunnart habitat. The Department has concluded that it is preferable to maintain habitat for the species on-site, rather than attempt to find an offsite offset as there are no records of the species within the local area despite intensive surveys. In order to ensure that known White-footed Dunnart habitat is protected, a condition of approval requires that an area of approximately 6.2 hectares (as delineated by the heavy black line on the Plan at **Figure 10**) is to be conserved as on-site as habitat for the White-footed Dunnart and other threatened species. An amended subdivision layout is to be submitted to the Department prior to issue of the Construction Certificate for Stage 1.

Leafless Tongue Orchid



Image: Jackie Miles

The Leafless Tongue Orchid (*Cryptostylis hunteriana*) grows to 45 cm tall when flowering between November and February. The Orchids may not flower every year as flowering is dependent on a number of factors including the energy reserves of the plant and seasonal conditions. The Orchid is only evident above ground when in flower. The Orchid's range extends along the coast from Orbost in Victoria to the Gibraltar Range

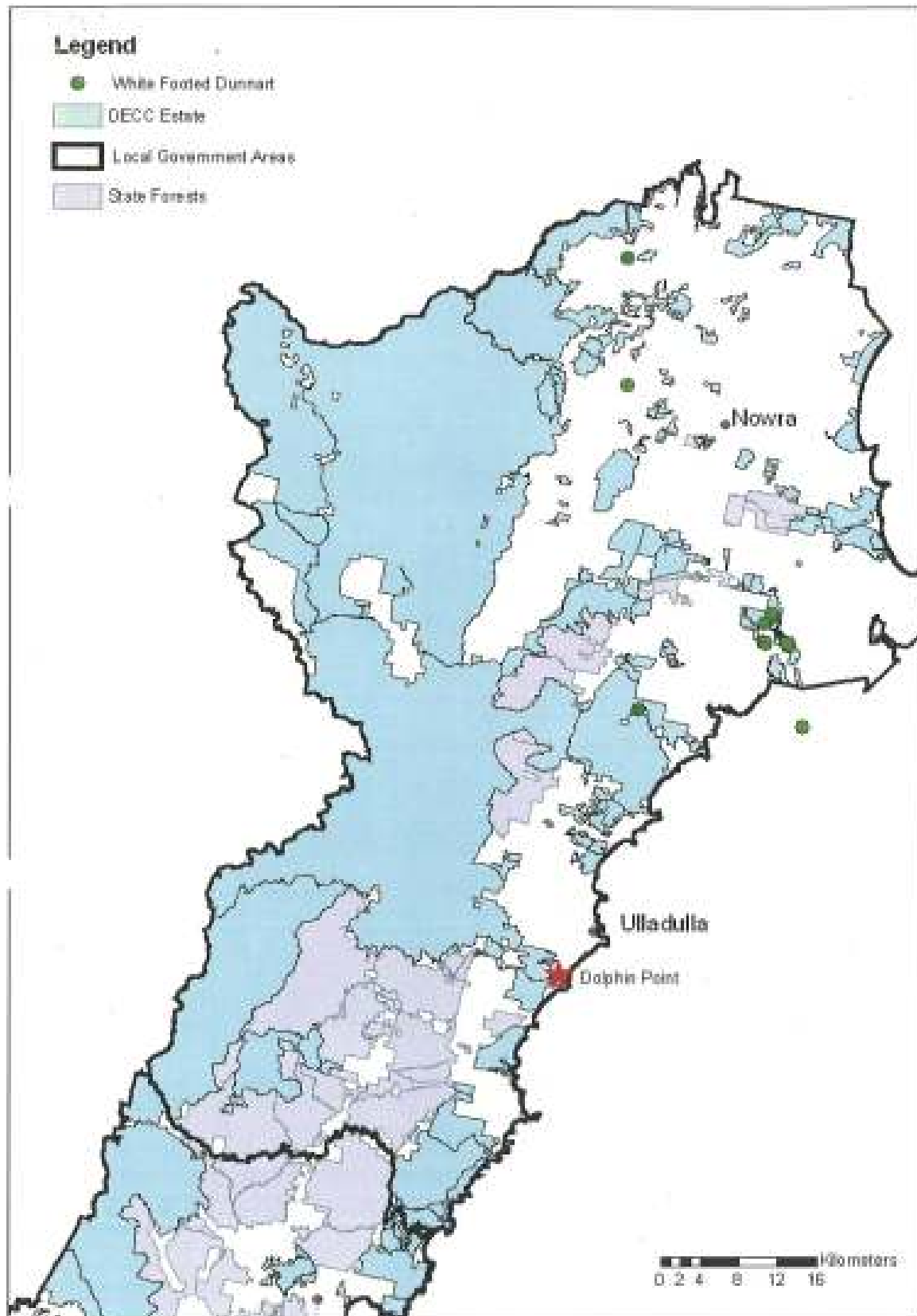


Figure 7 – White-footed Dunnart capture locations in the Shoalhaven LGA in the last 15 years

National Park, near Grafton. Although uncommon at all sites, a cluster of records are known from the Batemans Bay-Nowra area. The Orchid does not appear to have a strong habitat preference and can occur in wet heath and woodland vegetation communities. It is listed as a Vulnerable species under both the *Environment Protection and Biodiversity Conservation Act 1999* (Cwlth) and Schedule 2 of the *NSW*

Threatened Species Conservation Act 1995. Habitat clearance for residential development is a known threat to this species. Targetted surveys were undertaken for this species in December 2005 resulting in a recording of 12 individuals within the central part of the site. Further survey work was required by DECC to determine how significant the Orchid population was within the local area. In December 2006 an Orchid survey was conducted in Barnunj SCA which discovered 21 individuals of the Leafless Tongue Orchid. No further survey was conducted on the site at this time to determine if additional Orchids had flowered.

Further Orchid surveys were conducted in December 2007 and January 2008 discovering an additional 2 Leafless Tongue Orchids on the site (bringing the total on site to 14) and an additional 136 in Barnunj SCA and Crown Land to the south of the SCA (bringing the total off-site local population to 157) (see **Figure 9**). The total number of Orchid individuals on-site may be higher than 14 as no survey on the site was undertaken in 2006 and surveys on the site in 2007/2008 were limited to confirming that Orchids at known locations were flowering.

The proponent believes that the Orchids within Barnunj SCA and those within the site make up one large population and that the protection of the 14 individuals and the known habitat for the Orchid on the site (which may include more unsurveyed Orchids) would unduly impact the economic viability of the proposal. The proponent believes that the Orchid individuals on the site make up only 1.5% of the plants recorded in the immediate vicinity.

With respect to the Leafless Tongue Orchid the proponent has stated that:

- the subject site represents only a very small area of habitat for this species, compared to the extent of suitable known or potential habitat for the species in the immediate vicinity;
- the individuals on the subject site represent an 'outlier' of the local population of the Leafless Tongue Orchid, and are not regarded as of significance for the survival of that population; and
- appropriate management of Barnunj SCA would maintain the overwhelming majority of the population and of suitable habitat for this species.

However, notwithstanding this an offset package is proposed as an impact amelioration measure. This package would include: seed collection and propagation of the Leafless Tongue Orchid; translocation of individuals and soil from the site into Barnunj SCA; and the provision of \$15,000 to assist in the management of the Leafless Tongue Orchid within the Barnunj SCA.

DECC advice

DECC have stated that they believe the Orchids on the site are part of a large local population which includes the individuals in Barnunj SCA and that the Orchid population on the site, which makes up about 9% of the local population, is highly significant (14 of the Orchids on-site, in a known population of approximately 171). The offset package is not acceptable to DECC as translocation is not considered to work and the package does not meet the 'maintain or improve' principle as Orchid habitat is being removed with no compensatory habitat being provided in return. DECC proposed that most of the Orchid habitat be retained on-site due to the lack of known habitat available for the provision of compensatory habitat elsewhere. DECC accept that several individual Orchids that are separate from the main Orchid cluster on the site may be lost if their recommended development exclusion area is adopted. This loss of several scattered individuals is considered acceptable due to the large population within Barnunj SCA.

Commonwealth advice

The Leafless Tongue Orchid is listed as 'vulnerable' under the Commonwealth *Environmental Protection and Biodiversity Conservation Act 1999* (EPBC Act). It is a responsibility of the proponent to refer the proposal to the Commonwealth if the proposal (or 'action') is likely to have a significant impact on a matter of National Environmental Significance. The proponent did not refer the proposal to the Commonwealth as they did not believe that the proposal would have a significant impact on the Leafless Tongue Orchid. It was communicated to the Department that the Commonwealth was concerned that the proposal may have a significant impact on the orchid and that they would prefer the matter to be referred to them. This Department encouraged the proponent to refer the proposal to the Commonwealth. It is understood that this has not occurred.

Consideration

The Department engaged an independent botanical consultant to review the EA and the offset package and provide advice to the Department on the significance of the Orchid population on the site. The review concluded that:

- the 14 individuals on the site constituted a 'local population';
- the population on the site was part of a larger population which included those individuals in Barnunj SCA;
- that the proposal would result in the extinction of the population on the site; and
- that the habitat to be removed from the site is critical for the survival of the Orchid in the locality and for the persistence of the larger population in the region.

In regards to the offset package the review concluded that propagation or translocation of Orchid species such as the Leafless Tongue Orchid were not viable offsetting options as they are unlikely to be successful due to complex relationships with soil fungi which are not well understood.

The proposed total removal of Leafless Tongue Orchid habitat from the site will result in a significant impact on a local population of the species, whether one accepts the argument that it is a separate local population or the argument that it is part of a larger population including the population in Barnunj SCA. To ensure a good conservation outcome for the Leafless Tongue Orchid is achieved an on-site offset is required. Conditions of approval require that known habitat for the Leafless Tongue Orchid is to be protected on-site as part of a larger development exclusion area (see **Figure 10**) that is to be set aside to protect threatened species habitat on the site and that the development exclusion area is provided with a covenant requiring the land to be managed in perpetuity in accordance with a Conservation Reserve Management Plan. The Conservation Reserve will retain all Orchids found on site as well as potential Orchid habitat.



Figure 8 Leafless Tongue Orchid Records adjacent to the site

Swamp Sclerophyll Forest on Coastal Floodplains of the NSW North Coast, Sydney Basin and South East Corner Bioregions Endangered Ecological Community

Two areas of Swamp Sclerophyll Forest on Coastal Floodplains Endangered Ecological Community (EEC) occur on the site. 0.54 ha of this vegetation occurs along a drainage line in a narrow linear strip in the north-west of the site (see **Figure 6**). This patch of EEC has been degraded by untreated stormwater runoff from the existing urban areas of Dolphin Point. 0.68 ha occurs along drainage lines in the south-west of the site, this patch of EEC is contiguous with the vegetation within Barnunj SCA and is in good condition.

It is proposed to protect 0.26 ha of EEC in the north-west of the site, this lies within land zoned Environment Protection 7(a), the remainder of the EEC in the north-western section will be cleared as part of the proposal. The proponent states that the removal of 0.26 ha of this EEC is acceptable as it equates to less than 0.08% of this type of EEC within a 10km radius of the site. All the EEC in the south-west of the site is intended to be protected by retaining a 20m buffer of native vegetation. The retained areas of EEC are proposed to be dedicated to Council as part of Open Space/Drainage Reserves and managed in accordance with a Vegetation Management Plan.

The DECC raised no objections to the impact of the proposal on the EEC in the north-west of the site.

Preferred Project Report

The amended proposed layout in the PPR realigns Road One reducing the two areas of proposed Open Space/Drainage Reserve and removing the vegetated buffer to the north-western EEC.

Consideration

While the amended subdivision layout in the PPR does not substantially reduce the areas of EEC proposed to be protected it does reduce the surrounding proposed Open Space/Drainage Reserve and eliminates any buffering effect this may have provided to the EEC areas. The EEC area in the north-west of the site will have Road One directly adjacent, increasing the impacts on this already impacted EEC area, however this impact is considered acceptable when considered against the fact that the proponent will dedicate the land to Council to be managed as part of the public/drainage reserve, the approximately 0.25 ha of EEC to be lost is small in comparison to the local extent of this EEC and the patch of EEC to be lost is a degraded, linear strip and unlikely to be sustainable in the long-term.

Conditions of approval will require the proponent to prepare a Vegetation Management Plan for the Open Space/Drainage Reserve that contains the EEC in the north-west of the site and fund bush regeneration works within it until 80% of lots have been sold.

The patch of EEC in the south-west of the site is to be incorporated into the development exclusion area (see **Figure 10**) that conditions of approval require to be set aside to protect threatened species habitat on the site. The development exclusion area is provided with a covenant requiring the land to be managed in perpetuity in accordance with a Conservation Reserve Management Plan.

Other Threatened Species

A number of other threatened species were recorded from the site including the Glossy Black Cockatoo, the Eastern Freetail Bat, the Large-footed Myotis and the Osprey. No suitable foraging habitat occurs on site for either the Myotis or the Osprey and it is considered they were flying over the site when they were recorded.

The Eastern Freetail Bat was recorded foraging for insects through the canopy of trees in the north-central area of the site. The proponent suggested that the hollow-bearing trees at this location may provide roosting habitat for this species.

There are 105 Glossy Black Cockatoo feed trees (Black She-oak) on site (see **Figure 6**), most Glossy Black Cockatoo feeding activity was recorded from the central-west of the site where the concentration of the Black She-oak is the highest. The site contains 22 trees with large hollows which could provide potential nesting habitat for the Cockatoo, although no Glossy Black Cockatoos were recorded nesting in any of these hollows during assessment within the 2006 nesting season.

The proponent stated that:

- the areas of habitat and the resources present on the subject site at Dolphin Point represent only a small proportion of suitable habitat and resources for those species known or likely to occur (particularly the Glossy Black Cockatoo and microchiropteran bats);
- the subject site is located at the periphery of extensive areas of suitable habitat and resources for such biota, and is surrounded on three sides by existing or approved residential development; and
- the loss of habitat or resources for those species from the subject site would not significantly adversely affect those species with respect to their survival in this locality.

Consideration

The proposal will remove all but five of the 105 Black She-oak trees from the site and all but two of the 49 trees with hollows suitable for breeding habitat by the Glossy Black Cockatoo or the Eastern Freetail Bat. The condition of approval to amend the lot layout to protect approximately 6.2 ha of on-site habitat (see **Figure 10**) will result in an increased number of Black She-Oaks (at least 35) being protected on-site and approximately 7 hollow-bearing trees. Further conditions of approval will require the use of Black She-Oaks as street trees and the re-use of salvaged tree hollows within the on-site habitat reserve.

5.2 COMMONWEALTH MIGRATORY SPECIES

Rufous fantail

The migratory bird, the Rufous fantail, is listed under the *Environment Protection and Biodiversity Conservation Act 1999*. It was recorded foraging on the ground within the Swamp Sclerophyll Forest EEC in the north-west of the site.

The Rufous fantail is known to utilise dense understorey in damp forests or beside rivers. Suitable habitat for this species occurs on the site. The proponent does not believe that the proposal will have a significant impact on this species.

Consideration

Most of the potential habitat for the Rufous Fantail will be protected on-site. All the Swamp Sclerophyll Forest EEC in the south-west of the site is being protected and a large proportion of the Swamp Sclerophyll Forest EEC in the north-west of the site is being protected. Riparian corridors are proposed to be conserved and managed under either a Vegetation Management Plan for the land to be dedicated to Council or a Conservation Reserve Management Plan for the land subject to a condition of approval requiring its protection as threatened species habitat (see **Figure 10**).

5.3 REGIONALLY SIGNIFICANT VEGETATION

Red Bloodwood Shrubland and mosaic of treeless heath within Scribbly Gum-Bloodwood Woodland

There are 5 vegetation communities that have been identified on site (see **Figure 11**). One of these communities, the Red Bloodwood Shrubland occurs in the central south of the site. Red Bloodwood Shrubland occurs as scattered low trees, dominated by *Corymbia gummifera*.

The proponent stated in the EA that Red Bloodwood Shrubland correlates with the Bloodwood Woodland/Mallee classification of Shoalhaven City Council which comprises an extant area of 228ha, with 44% occurring in National Parks estate, protective zonings, or lands managed by the Commonwealth for conservation purposes. The loss of 1.357ha of this community for this proposal amounts to 1% of the extant area in the Shoalhaven LGA.

A second vegetation community on site, the Scribbly Gum-Bloodwood Woodland occurs in the centre of the site. This community occurs as a mid-slope woodland community approximately in the central portion of the study area. The canopy is dominated by Hard-leaved Scribbly Gum *Eucalyptus sclerophylla* and Red Bloodwood *Corymbia gummifera*.

The Scribbly Gum-Bloodwood Woodland correlates with the Scribbly Gum – Bloodwood and Scribbly Gum – Casuarina classifications of Council, which comprise an extant area of 15,783ha, with 87% occurring in National Parks estate, protective zonings, or lands managed by the Commonwealth for conservation purposes. The loss of 3.053ha of this community amounts to 0.02% of the extant area in the Shoalhaven LGA.



Figure 9 - Area of the site to be protected as a Conservation Reserve and area of the site to be dedicated to Council as Public Open Space (areas outlined in black).

The proponent does not accept that these vegetation communities have regional significance and does not believe that they are of particularly high conservation value. The proponent also states that neither community is listed as threatened under the *Threatened Species Conservation Act 1995*. No amendment was made to the subdivision layout in the PPR that gave either of these vegetation communities protection from development.

DECC considers that the Red Bloodwood Shrubland and the mosaic of treeless heath that occurs within the Scribbly Gum-Bloodwood woodland are regionally significant vegetation communities, with less than 100 ha of this type of vegetation occurring along the coast between Sydney and Cudmirrah (35km to the north of the site). DECC also believe that these vegetation communities are important habitat for the threatened Leafless Tongue Orchid and the White-footed Dunnart. DECC provided a subdivision layout design that depicts an area that they would like to see excluded from development in order to protect the Red Bloodwood Shrubland and some of the Scribbly Gum-Bloodwood Woodland (see **Figure 7**).

Consideration

The Red Bloodwood Shrubland and the treeless heath within the Scribbly Gum-Bloodwood Woodland are not listed threatened ecological communities but have, according to DECC, regional conservation significance. According to DECC these vegetation communities are also likely to be habitat for the threatened Leafless Tongue Orchid and the White-footed Dunnart. As a condition of approval requires 6.2 ha of the site to be excluded from the development and protected as habitat for the Leafless Tongue Orchid and the White-footed Dunnart, which includes almost 30% of the Scribbly Gum-Bloodwood Woodland, and approximately 30% of the area of the Red Bloodwood Shrubland on site it is not considered necessary to require further protection of these vegetation communities on the site.

5.4 IMPACTS ON BARNUNJ STATE CONSERVATION AREA

The proposal directly abuts the Barnunj SCA on the southern boundary. No buffer, apart from a road, was proposed in the EA. In its submission during the exhibition period DECC expressed concern about the impact on the SCA from increased visitation and resident impacts. DECC undertook to put in place management measures to deal with the increased visitation and requested that amelioration measures be incorporated into the proposal including: formalised pedestrian access from the proposed subdivision through to Barnunj SCA; a financial contribution to track upgrades in Barnunj SCA; separation of the subdivision from the SCA by a road; and the fencing of the boundary between the subdivision proposal and the SCA to exclude vehicles.

Preferred Project Report

The amended subdivision design in the PPR includes a residual lot and a road between the majority of the proposed residential lots and the SCA. The proponent's ecological consultant stated in an Appendix to the PPR that the proponent accepted and committed to the provision of a fence to exclude vehicles from the SCA; provision of formalised access tracks into the SCA; and the provision of signage to educate residents and visitors to the sensitivity of the vegetation within the SCA. As these measures were not referenced in the Statement of Commitments they have been required as conditions of approval.

Consideration

Edge effects into the SCA can be expected from having residential development directly abutting a conservation area. Site inspections revealed that this is currently occurring on the interface between the SCA and residences at the end of Highview Drive. There is no reason to expect this not to occur with future residents of this proposal. It is reasonable for DECC to ask for measures to ease the management burden associated with residential development on the interface with the SCA. Conditions of approval require the creation of a 6.2 ha Conservation Reserve for the protection of threatened species habitat. Further conditions of approval require the provision of a vehicle and dog proof fence and a perimeter road along the interface between the residential area and the Conservation Reserve. These conditions provide sufficient buffer to the SCA. Additionally a condition of approval requires the provision of signage and a formalised access through to the SCA from the end of Vista Drive, in consultation with DECC.

5.5 CONSERVATION RESERVE/DEVELOPMENT EXCLUSION AREA

The PPR plan increases the lot density and reduces the amount of Open Space from that provided in the original EA plan (see **Figure 4**). It sets aside a Residual Lot for further investigation for development at a later stage. In the Department's assessment of the impact of the proposal a number of issues were balanced

including the need to protect threatened species (see below for more detail), provide a viable riparian and ecological corridor through to Burrill Lake from the State Conservation Area, subdivision design and pedestrian permeability as well as lot yield. The Department concluded that conditions of approval were required to modify the subdivision layout to ensure that the proposal protected an appropriate amount of threatened species habitat as well as providing good subdivision design. The creation of a development exclusion area that is to serve as a Conservation Reserve has therefore been conditioned.

The Department's recommended development exclusion area differs from DECC's recommended area in several ways, however a good conservation outcome is still achieved for the site (see **Figure 7**) which sets the DECC preferred area alongside the Department's plan). The Department's modifications to the proposal will protect:

- the areas in which the Dunnarts were captured;
- much of the area in which the Leafless Tongue Orchid population was found;
- a number of the Glossy Black Cockatoo feed trees; and
- approximately 30% of the Red Bloodwood shrubland.

Additionally the 'edge to area' ratio of the development exclusion area is reasonable and importantly, it provides a much better corridor through from Barnunj SCA to the land to be dedicated to Council as Open Space on the adjacent subdivision to the west (only a 20m wide corridor was provided in the PPR Plan) and further downstream to Burrill Lake, leading to a more sustainable long-term outcome for threatened and non-threatened biodiversity in the locality. The DECC proposal would have resulted in a loss of 38 lots and the residual lot (considered to be capable of supporting approximately 30 lots), while the Department's proposal results in the loss of 26 lots and the residual lot to create the Conservation Reserve.



Figure 10 – DECC preferred exclusion area (plan on the left) and the Department of Planning preferred exclusion area (plan on the right).

Ideally the area to be excluded from development to form the Conservation Reserve would be incorporated into the Barnunj SCA so that consistent management of this important habitat could be ensured, however notwithstanding that DECC's Environment Protection and Regulation Group recommend protection of threatened species habitat on site further negotiation would be required with DECC's Parks and Wildlife Group prior to any dedication of the on site Conservation Reserve to DECC.

As the desired outcome is for the protection of threatened species on site conditions of approval require that the development exclusion area is provided with a covenant on title requiring the land to be managed in perpetuity in accordance with a Conservation Reserve Management Plan, in this regard the owners of the site are encouraged to negotiate with DECC for the inclusion of the development exclusion area into the Barnunj SCA.



Figure 11 - Vegetation communities of Lot 171 Highview Drive.

Conditions of approval also require that cats and dogs are to be prohibited from the subdivision at all times, a similar condition was placed on the approved Elderslie South subdivision.

5.6 URBAN DESIGN, VISUAL IMPACT AND SUSTAINABILITY

Density

There is a requirement under Shoalhaven Planning Policy No. 1 (SPP1) for 10-20% of the total area identified as 'standard urban residential' to be subdivided to provide for 'medium density development'. This works out to be approximately 1.4 ha of the site. One lot of 1240m² was provided for medium density development purposes in the exhibited plan. The Council raised this non-compliance in their submission and the proponent was subsequently requested to amend the design to address this issue.

Preferred Project Report

The proponent provided an additional medium density lot, bringing the aggregate medium density component of the subdivision to 3150m² or approximately 2% of the residential zoned land on the site. It was argued that the medium density lots provided could support a yield of 13 two bedroom units, which would comprise 10% of the standard residential lot yield within the subdivision. It was also argued that providing a higher amount of medium density lots in the locality would not be desirable due to the lack of a neighbourhood shopping precinct.

Consideration

Dolphin Point is a small and isolated village with little in the way of services. Car dependency will be high amongst future residents who will need to travel to the major town of Ulladulla for most services. Mandating increased density in such a location is not consistent with the goals of the South Coast Regional Strategy. The non-compliance with SPP1 is supported. Due to the proposed amendment requiring the provision of a Conservation Reserve and additional useable Open Space the percentage of residential land being provided that is capable of medium density increases to approximately 4.7%. The proposed subdivision will provide 3130m² of land capable of supporting medium density development and this is considered sufficient for this location.

Open Space

There is a requirement under Council's DCP 100 to provide Public Open Space, in accordance with Council's Section 94 Contribution Plan, by way of dedication of land to Council, monetary contribution or both. Element E7 of the DCP also sets out criteria for the provision of Public Open Space. Under the Section 94 Plan for a 104 lot development usable Open Space of 2932.8m² is required. The EA proposed 24,960m² although this included areas largely unusable as passive recreational space due to them being reserved for EEC bushland protection, riparian zones, Asset Protection Zones or water quality control structures. All public open space, drainage reserves and EEC's were proposed to be dedicated to Council. The proponent committed to developing a Vegetation Management Plan (VMP) for these areas and implementing all recommendations after the Council had approved the VMP. Council provided no comment on this aspect of the EA except to state that the layout of the subdivision should be reconfigured to further protect EEC (for more discussion on this particular aspect see Section 6.1.3).

Preferred Project Report

The amended subdivision layout provided as part of the PPR reduced the area of proposed Open Space Reserve by 4710m² but included a new 520m² Childs Play Public Reserve making a total of 20250m² of proposed Open Space. However the usable passive recreation space component of the proposed Open Space was reduced substantially, with the remaining area being made up of drainage reserve or EEC protection areas.

In Council's submission on the PPR the dedication of the 520m² Childs Play Public Reserve was opposed as it is non-compliant with the Open Space criteria set out in DCP 100, mainly due to its small size and impracticality for passive recreation as well as the maintenance burden it presents to Council. Council requested that further useable Open Space be provided that complied with the requirements for useable Open Space as set out in DCP 100. Council also decided to oppose the dedication of EEC as part of any Open Space provision. However Council has accepted that the dedication of the small amount of EEC in the north-western corner will be necessary as it forms part of the drainage corridor and directly abuts a large area of land to be dedicated to Council by the developer of the adjacent western site (Elderslie). The EEC in the south-western corner will form part of the Conservation Reserve to be conserved in perpetuity by condition and encouraged to be dedicated to DECC.

Consideration

The Open Space proposed in the PPR is not compliant with Council's DCP 100. The proposed 520m² is too small to be of benefit to the future residents for all their future passive open space requirements. Open space has been reduced in order to fit in more residential lots. This is not considered to be an acceptable outcome. The adjacent Elderslie South Major Project 05_0016 dedicated 16.87ha of 6(b) and 7(a) zoned land to Council and provided 1770m² of embellished usable passive recreation area as well. In this context it is appropriate to condition the approval to require that an area of 1600m² be provided as a usable Public Open Space Reserve. An area has been identified for the provision of this reserve adjacent to the drainage reserve in the north of the site (see **Figure 9**) and is to be provided in such a state as to satisfy Council and generally comply with DCP

100 as well as complying with *Planning for Bushfire Protection*. A public pathway is to be provided through the reserve linking Road One with Bonnie Troon Close.

Integration with the site to the west

The position of the collector road was re-positioned in the Preferred Project Report in order to link up with the collector road on the adjacent site. A condition of approval on the adjacent site required the proponent to pay the cost of the road to the creek crossing and half of the cost of the crossing. To ensure consistency a similar condition of approval has been applied to this proposal.

Similarly, conditions of approval have been applied to this proposal to ensure consistency with the approval for the adjacent site in the event that the development on the adjoining site does not proceed before the completion of the subdivision on the subject site. In this case a condition of approval requires the payment to Council of the cost of the works, which are to be held for a maximum of 5 years. The condition requires a costing for the works to be provided by the proponent and for the purposes of a bond. If the development on the adjoining site proceeds within the 5 year period, the money is to be used by Council for the construction works. If the subdivision has not commenced in that timeframe, the money is to be returned to the developer and the whole cost of the works is to be borne by any future developer of the adjoining site.

Design

The principles contained in the *Coastal Design Guidelines for NSW*, *NSW Coastal Policy* and *SEPP 71* have all been satisfied by the proposed design. The design is appropriately energy and water efficient with generally well oriented lots (where topography allows) and utilising sensitive water design (incorporating minimisation and re-use of stormwater through water tanks and water quality treatment), although conditions are required to ensure that these designs are incorporated into final stormwater plans.

The design is appropriately safe, with pathways located to allow for surveillance by future dwelling occupants, with appropriate lighting. The site provides a connecting link between the existing residential area and the site to the west and a relationship will be formed between the two as the site is developed and the collector road is built, which will connect through the site to the existing residential area.

Open space is provided within the north of the site as a Drainage Reserve/EEC Protection area and an area of useable Open Space. An area of habitat to be protected for flora and fauna will provide further retained canopy, reducing the visual impact of this proposal. The open space of this proposal and the adjacent site to the west is linked by a proposed pedestrian/cycle path system and the beach.

The proponent has developed their own set of design guidelines which are intended to encourage a contemporary design ethic sympathetic to the natural setting of the Dolphin Point township. The proponent intends to create covenants requiring compliance with the design guidelines. The Council does not support the use of the proponent's guidelines as they may conflict with Council requirements. The guidelines will not be enforced through conditions of approval at this stage, however the proponent is encouraged to work with Council to develop these guidelines further.

Visual impact

Although the proposal involves only subdivision and as such construction works are limited to the provision of roads and infrastructure, the site is fully vegetated and is visible from public spaces to the north (ie. beach and lake). The removal of tree canopy will be evident above the roofline of houses when viewed from the northern shores of Burrill Lake as well as from the existing residential area to the west. Once dwellings (of up to two storey construction) are built on the site, they may be visible from outside the subdivision area especially when viewed from the north-west. In order to provide some screen to future development and to assist in retaining mature tree canopy within lots and street verges a condition of approval requires the provision of a Tree Retention Plan, to be provided prior to the issue of a Construction Certificate for Stage 1. This will limit the number of trees removed during subdivision creation. Council consent will be required for removal of further trees by future lot owners. To further limit the visual impact of future dwellings on the site a condition of approval requires future buildings to be constructed predominantly using materials and colours that are muted and will blend in with the surrounding bushland.

5.7 STAGING

The proposed subdivision will be undertaken in stages (see **Figure 4** for staging boundaries), contingent upon the market and on take-up rates. The initial proposal showed a six stage development, with each stage accommodating 22-27 allotments. A 10 year period was anticipated to fully develop the site. The proponent has stated that 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 residential development of lots upon their release. Dedication of public reserves and drainage infrastructure will occur at various stages throughout the construction of the subdivision as it is not practical or 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.

Preferred Project Report

An amended proposed subdivision layout and staging plan was provided as part of the PPR. Proposed staging is: 1A- creation of Superlots 1B and Superlot of Stages 2-7 and a residual lot; 1B- creation of 20 lots and a public reserve and one medium density lot; Stage 2- creation of 19 lots; Stage 3- creation of 20 lots and a public reserve and one medium density lot; Stage 4- creation of 18 lots and one public reserve; Stage 5- creation of 15 lots; Stage 6- creation of 20 lots; and Stage 7- creation of 18 lots.

Consideration

The proposed staging will allow the orderly development of the site. The collector road will be built as part of Stage 1B along with construction and dedication of drainage works. A condition of approval modifies the staging plan to reflect amendments to the subdivision as a result of the condition of approval for protection of threatened flora and fauna habitat on the site and the provision of useable open space.

5.8 TRAFFIC AND ACCESS

Operational

The RTA had no objection to the proposal as advertised. Council reviewed the traffic impact of this proposal in conjunction with the traffic impacts of the adjacent now-approved subdivision to the west (Elderslie South). Council generally accepted the proposed design of the subdivision and the internal road network. Council requested minor modifications to the design of some internal roads, with the largest modification being that the proposed Road 8 connecting through to Bonnie Troon Close be changed to a no-through road and be provided with a cul-de-sac.

Council made further comments on external road impacts of the subdivision including requesting the provision of a roundabout at the intersection of the collector road named Road One and Dolphin Point Road, Seaside Parade and Highview Drive, widening the inside of the bend, to BAR standards, of the Dolphin Point/Pacific Highway Link Road intersection and providing a high-entry angle left slip-lane onto the Pacific Highway.

Preferred Project Report

A number of minor amendments were made to the internal road network in the PPR in response to Council's comments. A Roundabout has been added to the intersection of Road One with Highview Drive/Dolphin Point Road and the proponent has stated in the Statement of Commitments that 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. With regards to other external road infrastructure improvements the proponent believes that the Section 94 contributions plan is the appropriate place for any funding to be levied for external works related to the proposal.

In the PPR substantial modifications were made to the road layout as a result of modifying the position of the collector road, to ensure it connected to the subdivision to the west Council was asked to provide further comment on the revised road layout. Council again requested minor modifications to the design of some internal roads and maintained its request that the proposed road connecting through to Bonnie Troon Close be changed to a no-through road and be provided with a cul-de-sac. Council requested concept and cross section plans for the sweeping bend in Road One (see **Figure 4**) in the vicinity of the proposed water quality facility so as to be assured that the road as depicted in the PPR could actually be built without further impacting on areas

of EEC. Plans were provided by the proponent detailing retaining walls, road and footpath widths and a long section showing the alignment of the sewage pipeline and the areas requiring fill.

In respect of external road impacts the Council provided a copy of its condition on a recent Council-approved 99 lot subdivision to the north-west of the subject site (Elderslie North)(Shoalhaven Council Subdivision Consent SF9957) which required lot consolidation and road widening to accommodate a left turn lane on to the Pacific Highway. Council requested that the Department apply a condition of approval that required the proponent to construct the left turn lane onto the Pacific Highway when the developer for the approved subdivision to the north-west had completed the road widening works.

The Council request for BAR treatment to the Dolphin Point/Pacific Highway Link Road intersection was changed to a request for LATM treatments to Roads 1 and 2 and Vista Drive within the subdivision.

Consideration

The proponent has committed to the provision of a roundabout at the intersection of Dolphin Point Road with Road One. The proponent has been aware of Council's requirement for the provision of a left turn lane onto the Pacific Highway for a number of years. Conditions were placed on the adjacent Elderslie North subdivision to provide space for the provision of the left turn lane. As sufficient extra traffic will be generated by the proposal to make the left turn lane necessary it is reasonable for a condition of approval to require the proponent to provide this road work. A condition of approval requires the provision of LATM treatments to Roads 1 and 2 and Vista Drive, south of Bonito Street. A condition of approval will also require that there be no through traffic from the proposal into Bonnie Troon Close as requested by Council and the subject of a number of public submissions. Instead the proposed road will become part of the Open Space reserve to be created through condition of approval.

Construction

Details on construction traffic for subdivision construction was not provided, however this is not expected to be substantial as the proposal will be undertaken over a number of stages. The proponent estimates that residential construction is likely to generate a peak of around 200 vehicles per day, of which 40 to 50 will be delivery of construction materials. This amount of traffic is not considered excessive and the road network will be able to cater for these movements.

5.9 ABORIGINAL CULTURAL HERITAGE

The Aboriginal heritage impact study of the site found that the site was unable to be effectively assessed for Aboriginal heritage resources due to thick vegetation constraining visibility. The study stated that various studies undertaken over several years on the adjacent Elderslie South site located stone artefact and shell midden evidence indicating transitory movement and hunting/gathering without camping and undertaken in multiple episodes each of short duration and infrequently over time by low numbers of people. The proponent's aboriginal heritage consultant believes that the evidence found on the adjacent site provides a strong indication of the likely evidence on the subject site, which is within the same environmental/cultural context. The study concluded that the location and/or significance of the sites are not such that they would prevent the proposal from proceeding.

DECC stated in their submission on the EA that they considered the assessment of Aboriginal Cultural Heritage matters to be adequate and has identified no issues with respect to Aboriginal Heritage.

An assessment against cl. 8(l) and (n) of SEPP 71 in relation to cultural values and Aboriginal heritage has found the project to be acceptable, with an appropriate Aboriginal Heritage Management Plan provided.

5.10 BUSHFIRE

The EA provides a Bushfire Protection Assessment Report, which is amended as part of the PPR. Various widths of Asset Protection Zones (APZs) are provided along the interface of the residential areas of the subdivision with bushland areas. The widths of the proposed APZs range in from 15m to 25m and increase with the bushfire threat posed by the type of vegetation adjacent and the slope and aspect of the land.

The RFS has raised no objection to the proposal subject to conditions regarding compliance with *Planning for Bushfire Protection 2006* and nominated asset protection setback locations and dimensions.

Drainage Reserves in the south west and north-west corners are proposed to be dedicated to Council. The plan submitted as part of the PPR shows that an APZ, which will need to be maintained to Inner Protection Area (IPA) standard, is proposed over the water quality facility in the north western corner. Council have raised no objection to this requirement. It is likely that most of the area required to be managed as APZ will be waterbody and the remainder of the area can be landscaped to meet IPA standard, requiring no more maintenance than otherwise would be necessary.

RFS conditions of approval have been included in Schedule 2.

5.11 DRAINAGE, HYDROLOGICAL REGIME, FLOODING AND IMPACTS OF CLIMATE CHANGE

Drainage depressions in the south-west and north-west of the site drain the site into the adjoining site to the west and then to the north and eventually to Burrill Lake. Stormwater drainage is intended to be collected and piped to low-lying portions of the site and discharged to the drainage lines on-site via water quality control ponds. The north-western and south-western drainage lines are to be retained in accordance with Shoalhaven Planning Policy No.1. The *Water Cycle Management Report* prepared by Storm Consulting for the EA is a concept document and does not provide detailed assessment of hydrological or water quality impacts.

Hydrological Regime

The *Water Cycle Management Report* states that the expected post-development runoff volumes with the impact mitigated by the stormwater management system will increase by 23%. Modelling for the full range of post-development runoff events show that maximum flows are similar although smaller flows are more frequent. The proponent's Statement of Commitments states that the developer will provide a minor street drainage system to accommodate the 5 year ARI storm and a major street drainage system to accommodate the 100 year ARI storm.

Consideration

The extent of the increase in post-development run-off is considered excessive in terms of WSUD, as is the potential for ecological impact of an increase in frequency of smaller flows. Conditions of approval will require WSUD measures to be implemented that ensure the peak rate of runoff from the development does not exceed current condition rates of runoff for storms ranging between 1 year and 100 year ARI for a range of storm durations up to and including three hours duration. In order to ensure that runoff volumes are similar to pre-development levels changes in the sizing of the constructed wetland may be required. Conditions of approval will require that any required changes to the subdivision layout as a consequence of the need to provide bio-swales and an increase in the size of the water quality wetland do not reduce the size of, or protection provided to the bushland area of the Drainage reserve as shown on the PPR plan.

Inter-allotment Drainage

Inter-allotment drainage has been addressed within the proponent's Statement of Commitments, which states that the developer will install street and inter-allotment drainage as necessary in accordance with plans approved by Council. A condition of approval will require the provision of a drainage plan for Council approval.

Flooding and Climate Change related sea level rise

The updated Water Cycle Management Report prepared by Storm Consulting for Preferred Project Report states that the current flood planning level for developments affected by the Burrill Lake Estuary is RL 3.1, which incorporates a 0.5m freeboard added to the 100yr flood level of 2.6m AHD. An assumption is made in the report that this allows for flooding due to floodwaters in the Burrill Lake Estuary and ocean inundation. The report references the current floodplain risk management guideline on *Practical Consideration of Climate Change* DECC 2007. The guideline recommends that floor levels allow for the maximum potential sea level increase plus 0.5m freeboard. Taking this into account the report recommends that any lots or parts of lots below RL 3.51 AHD should be filled to at least RL 3.51 and finished floor levels should be set at a minimum RL 4.01m AHD. The report models the worst case Burrill Lake 100 year flood level post 2100 (RL 3.51m AHD) which shows five lots affected.

In the original lot layout as exhibited in the EA lots adjacent to the south-western drainage line may have been affected by flood levels elevated by climate change impacts. Flood levels may reach RL6.11 AHD in this area of the site, however there are no longer any lots in this area of the site.

Consideration

Five lots, as shown on Storm Consulting drawing 611-PO2, are subject to potential worst case scenario flooding impacts. Conditions of approval will require finished floor levels for these lots to be set at a minimum of RL4.01m AHD. All other lots on the site are already above this level.

5.12 IMPACT ON WATERWAYS AND ESTUARY MANAGEMENT

Riparian Zones

The site sits close to the top of the catchment and depressions rather than channels with formed banks drain the land. Swamp Sclerophyll Forest EEC occurs within both the south-west and north-west drainage lines.

The DWE provided comment that plans should be provided showing that the proposed riparian corridors have been measured from top of bank and that development including asset protection zones (APZ) should be excluded from the riparian zone and that residential development and associated infrastructure and the Inner Protection Zone of APZ be located outside the riparian corridor. DWE also recommended that riparian corridors be established on the site for the protection and enhancement of native riparian vegetation.

These EECs have been used to determine the 'riparian zone'. In the subdivision plan exhibited with the EA the riparian zones have been provided with buffer zones of up to 20 metres from the roadways which form a boundary to the proposed drainage reserves. A Vegetation Management plan for areas containing EECs is proposed to be provided prior to the issue of the Construction Certificate for Stage 1.

Preferred Project Report

The modified subdivision layout proposed as part of the PPR shows that buffers to the riparian zone/EEC in the north-west of the site have been deleted and Road One now directly abuts the riparian zone/EEC.

Consideration

Riparian corridors have been provided for both the south-west and the north-west drainage lines, although the PPR reduces the buffer to the EEC in the north-west drainage reserve. The protection to the south-west riparian corridor and EEC will be increased by the condition of approval requiring a 6.2 ha Conservation Reserve for the protection of threatened species habitat on-site, this reserve will ensure that there is a riparian corridor connecting the top of the catchment with Burrill Lake. Conditions of approval relating to water quality and quantity will ensure that runoff leaving the development will not have a significant impact on EECs on site or downstream. A condition of approval requires that a Vegetation Management Plan for all vegetated land to be dedicated to Council (including bioswales and constructed wetlands) be submitted for Council approval prior to release of the Construction Certificate for Stage 1.

Management during construction

No detail was provided in the EA or PPR of the measures to be put in place during construction to protect the quality of the water draining to natural drainage lines. Conditions of approval require that an Erosion and Sediment Control Plan must be approved by the PCA prior to the issue of a Construction Certificate for each stage and monitoring of the quality of the water leaving the site is to be undertaken during construction.

5.13 WATER QUALITY, WATER SUPPLY AND SEWERAGE

Water Quality

The *Water Cycle Management Report* states that through the use of a range of WSUD measures water quality objectives stated in the *Burrill Lake Estuary and Catchment Management Plan 2002* and best management practice pollutant removal values as stated in the draft *Managing Urban Stormwater: environmental targets*, DECC 2007 will be able to be met.

The proponent's Statement of Commitments states that the developer will design, install and dedicate water quality control measures generally in accordance with the Water Cycle Management Report and that the developer will maintain the water quality control measures for a period after dedication to Council.

Consideration

As the site will be draining to natural creeklines and wetlands containing EECs prior to entering Burrill Lake it is appropriate that water quality criteria are of a high standard. Conditions of approval will require that appropriate environmental targets for water quality are met by the proposal. Water quality testing will also be required at regular intervals throughout construction to ensure that environmental targets are reached.

Water Supply and Sewerage

Shoalhaven Water, by letter dated 22 November 2007, advised that the development can be supported by the water supply and sewerage systems. Standard conditions relating to requirements to obtain certificates of compliance were asked to be placed on any consent. These conditions of approval have been included in Schedule 2.

5.14 GENERAL ENVIRONMENTAL RISK ANALYSIS

No Contamination Report, Acid Sulphate Soils Report or Geotechnical report has been submitted as part of this application. However, in regards to the potential for contamination, as the site is fully vegetated and there is no evidence of any particular usage in the past likely to lead to contamination the likelihood of contamination is thought to be low. No further investigation is thought to be required.

The Acid Sulphate Soil testing for the adjacent Elderslie South subdivision, which has similar topography, found that excavation below RL 3.5 would require an Acid Sulphate Management Plan. Conditions of approval require the provision of an Acid Sulphate Management Plan for all works below RL 3.5

No assessment of cut and fill impacts has been provided, although it is not considered that there will be geotechnical issues associated with development the site, however the proponent as part of the Statement of Commitments has stated that the developer will provide a lot classification geotechnical report to Council for each stage of the development prior to the release of the final plan of subdivision for that stage, this commitment will be reinforced with a condition of approval requiring that any cut or fill is to remain within 500mm of the natural ground level, except for those five lots in the north west of the site which require filling to reach the required foot planning levels.

5.15 SOCIAL IMPACTS

The site is owned by the Ulladulla Local Aboriginal Land Council (ULALC). The ULALC is involved in a joint venture with Malbec Properties to develop the site. The Department is not aware of the exact nature of the arrangements with the Aboriginal community of this proposal as it is not relevant to the Department's assessment nor was it discussed in the EA.

The ULALC's submission during exhibition of the EA stated that benefits from the joint venture would include: a better financial future for the Aboriginal community, the provision of direct and indirect employment and training outcomes for the members of the LALC, financial revenues from the project will make the LALC more self-sufficient and less reliant on government assistance. They also believed that any reduction in lot yield would place undue hardship on the community.

5.16 SECTION 94 AND OTHER CONTRIBUTIONS

Council has provided a list of applicable Section 94 contributions, and it is considered appropriate to apply a condition requiring a cash contribution for all of the applicable Section 94 contributions. These contributions have been adjusted to reflect the reduced lot yield resulting from conditions of approval.

Tennis, Football, Cricket and Netball	\$171934.12
Leisure Centre Heated Indoor Swimming Pool	\$19728.72
Southern Shoalhaven Branch Library	\$26143.84
Dolphin Point/Burrill Lake Connector and Link Road	\$368880.00
Dolphin Point	\$204910.72
Southern Link Road	\$42854.74
Hockey Facilities	\$27550.46

Stage 1: Shoalhaven City Library Extensions	\$29178.62
Stage 2: Shoalhaven City Arts Centre	\$2639.40
Stage 3: Shoalhaven Mobile Children's Services	\$864.96
Shoalhaven Multi Purpose Cultural and Convention Centre	\$26086.60
Citywide Fire and Emergency Services	\$16169.24
Shoalhaven Fire Control Centre	\$21169.26
Section 94 Administration	\$43928.52
Embellishment of Icon and District Parks and Walking Tracks	\$16918.66
TOTAL	\$1,018,957.86

5.17 COMMENTS ON DRAFT STATEMENT OF COMMITMENTS

The Preferred Project Report contains a final Statement of Commitments which is generally the same as the Statement of Commitments exhibited with the EA. The Statement of Commitments are considered to be acceptable with the exception of the following commitments, which are modified by the conditions of approval as follows:

- Ecological-
 - Prior to the release of the construction certificate for Stage One the developer will prepare a Vegetation Management Plan (VMP) in relation to all land to be dedicated to Shoalhaven City Council, to the Council's satisfaction.
 - The developer will implement the recommendations of the VMP from the commencement of works on site and continue implementing the recommendations of the VMP until 80% of the lots have been sold.
 - Funding proposed as an offset for the removal of Leafless Tongue Orchid and White-footed Dunnart habitat is no longer required as protection of land for the long-term conservation of their habitat forms a condition of approval.
 - There is no requirement to attempt translocation of either Leafless Tongue Orchid or White-footed Dunnart due to the likelihood of failure of this proposal.
 - A restriction on title of each lot will require the prohibition of cats and dogs.
- Infrastructure
 - Traffic Calming- The road proposed to connect through to Bonnie Troon Close will become a no-through road, with a cul-de-sac provided. Such works shall be in accordance with plans approved by Shoalhaven City Council.
- Landscaping
 - The developer will prepare construction certificate landscape plans generally in accordance with the concept plans prepared by Hans Smit lodged with the Preferred Project Report and the Tree Retention Plan and the Conditions of Approval requiring that 50% of trees to be planted are to be *Allocasuarina littoralis*, all other landscaping species are to be locally endemic to the area and landscaping within each stage will be provided in accordance with those plans.

5.18 PUBLIC INTEREST

The proposal serves the public interest by the orderly provision and release of serviced residential land that is well designed and provides appropriate linkages to facilities and services. The public interest is also served by the ongoing protection and rehabilitation of riparian corridors and protection of threatened species habitat on site and the linking of this habitat to the Barnunj SCA to the south and Public Reserve to the west.

6 CONCLUSION

The Department has assessed the EA and considered the submissions in response to the proposal. The key issues raised in submissions related to impacts on native vegetation, riparian corridors, threatened species, traffic matters and management and mitigation of construction impacts. The Department has considered these issues and a number of conditions are recommended to ensure the satisfactory addressing of these issues and that impacts resulting from the proposal are acceptable.

The proposed development will allow for the provision of additional residential lots in Dolphin Point and the protection of riparian corridors and threatened species habitat. Furthermore, the project application has largely demonstrated compliance with the existing environmental planning instruments.

In regards to the impacts on threatened species of the proposal the Department recommends that part of the site not be developed and is instead protected as a Conservation Reserve. It would be desirable for this area to be incorporated into the adjacent Barnunj SCA and this should be the subject of further negotiations between the owners of the site and the DECC. A corresponding rezoning of the on site Conservation Reserve from 2(c) Residential to Zone E1 National Parks and Nature Reserves should also occur.

Although the recommendation means a reduction in lot yield from that lodged in the PPR of 130 residential lots, 2 medium density lots and a residual lot (capable of a yield of approximately 30 lots) to 104 lots including 2 medium density lots the Department believes that this is the best outcome for the site due to the threatened species habitat constraints to development on the site and in the absence of any adequate off-site conservation offset being provided by the proponent.

The Department's recommended development exclusion area is of a lesser area than that recommended by DECC, however it is believed to be of a configuration that protects threatened species habitat on site, results in a better subdivision layout, increases the connectivity of the development exclusion area on site with vegetated areas on adjacent sites, results in fewer lots being deleted from the proposal and is an acceptable compromise given that the site is zoned 'Residential'.

On these grounds, the Department considers the site to be suitable for the proposed development and that the project is in the public interest. Consequently, the Department recommends that the project be approved, subject to the conditions of approval.

7 RECOMMENDATION

It is recommended that the Minister:

- (A) consider the findings and recommendations of this Report; and
- (B) approve the carrying out of the project, under Section 75J *Environmental Planning and Assessment Act, 1979*; subject to modifications of the project and conditions and sign the Determination of the Major Project (**tag A**).

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APPENDIX A. DIRECTOR-GENERAL'S ENVIRONMENTAL ASSESSMENT REQUIREMENTS

PROPOSED RESIDENTIAL SUBDIVISION DEVELOPMENT AT LOT 171 DP 1081810, HIGHVIEW DRIVE, DOLPHIN POINT (MP 05 _0024)

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

<i>Project</i>	The subject proposal is for a 170 lot residential subdivision.
<i>Site</i>	Lot 171 DP 1081810, Highview Drive, Dolphin Point
<i>Proponent</i>	Allen, Price & Associates
<i>Date of Issue</i>	__ January 2006
<i>Date of Expiration</i>	__ January 2008
<i>General Requirements</i>	<p>The Environmental Assessment must be prepared to a high technical and scientific standard and must include:</p> <ul style="list-style-type: none"> • an executive summary; • a description of the proposal, including construction, operation, and staging; • an assessment of the environmental impacts of the project, with particular focus on the key assessment requirements specified below; • justification for undertaking the project with consideration of the benefits and impacts of the proposal; • a draft Statement of Commitments detailing measures for environmental mitigation, management and monitoring for the project; and • certification by the author of the Environment Assessment that the information contained in the Assessment is neither false nor misleading.
<i>Key Assessment Requirements</i>	<p>The Environmental Assessment must address the following key issues:</p> <ul style="list-style-type: none"> • Statutory and Other Requirements – 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. • 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 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. • Urban Design, Visual Impact and Sustainability – The concept plan for the development shall be prepared in collaboration with an adjoining proposed subdivision at Lot 1 DP 1045990, Princess Highway, Dolphin Point for a 130 lot

residential subdivision (Stage 2 of a 5-stage development). Address *Coastal Design Guidelines for NSW, SEPP 71* and *SEPP 65* 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.

- **Bushfire** – 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, 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.
- **Drainage, Hydrological Regime and Flooding** – Address drainage issues in accordance with Shoalhaven *Planning Policy No.1 Development Guidelines – For Certain Residential 2c 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.
- **Impacts on Waterways and Estuary Management** – Demonstrate consistency with objectives of the *Rivers and Foreshores Improvements Act 1948*, *NSW State Rivers and Estuaries Policy*, *NSW Estuary Management Policy* and the *Burrill Lake Estuary and Catchment Management Plan*. 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.
- **Impacts on Water Quality, Supply and Sewerage** – 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. 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).
- **Impacts on Threatened Species** – Address the indirect impacts of the development on threatened species and their habitats, in particular the presence of *Greilleea barklana* and *Pseudatnthus Divaricatissimus*, *Tessellated Spider Orchid*, *Leafless Tongue Orchid*, *Ground Parrot*, *Glossy Black Cockatoo*, *Eastern Pygmy-possum*, *Microchiropteran Bats*, *White-footed Dunnart*, and *Striated Fieldwren*.
- **Impacts on adjoining Barnung State Conservation Area** – Address management implications and impacts; boundary encroachments and; visual impact.
- **Aboriginal Cultural Heritage Vales** – Address and document information requirements set out in the draft *Guidelines for Aboriginal Cultural Heritage Impact Assessment and Community Consultation*, which involves surveys and

	<p>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> <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.
<i>Consultation Requirements</i>	<p>You must undertake an appropriate and justified level of consultation with the following parties:</p> <ul style="list-style-type: none"> • Shoalhaven City Council; • Shoalhaven Water • NSW Department of Planning – South Coast Regional Office; • NSW Department of Natural Resources; • NSW Roads and Traffic Authority; • NSW Rural Fire Service; • NSW Department of Environment and Conservation; • NSW Department of Primary Industries • Southern Rivers Catchment Management Authority • Telstra Energy; • 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>
<i>Deemed refusal period</i>	<p><i>Under clause 8E(2) of the Environmental Planning and Assessment Regulation 2000, the applicable deemed refusal period is 60 days from the end of the proponent's environmental assessment period for the project.</i></p>

APPENDIX B. COMPLIANCE WITH EPIs INCLUDING STATE ENVIRONMENTAL PLANNING POLICIES THAT SUBSTANTIALLY GOVERN THE CARRYING OUT OF A PROJECT

APPENDIX C. COMPLIANCE WITH DCPS AND OTHER PLANS AND POLICIES

APPENDIX D. SUMMARY OF SUBMISSIONS

APPENDIX E. RESPONSE TO SUBMISSIONS

Preferred Project Report provided on disk.

APPENDIX F. ENVIRONMENTAL ASSESSMENT

To be provided on disk.