

Appendix 6. Draft LES.



Parkside @ Terrigal

Local Environmental Study

for Crighton Properties Pty Limited

January 2011

0050265 Draft

www.erm.com



Quality ISO-9001-PMS302

Project Manager:	<i>Amanda Antcliff</i>
Signed:	<i>Aantcliff</i>
Date:	<i>January 2011</i>
Principal Consultant:	<i>Steve O'Connor</i>
Date:	<i>January 2011</i>

Environmental Resources Management Australia Pty Ltd Quality System

Parkside @ Terrigal

Local Environmental Study

for Crighton Properties Pty Limited

0050265 Draft

January 2010

This disclaimer, together with any limitations specified in the report, apply to use of this report. This report was prepared in accordance with the contracted scope of services for the specific purpose stated and subject to the applicable cost, time and other constraints. In preparing this report, ERM relied on: (a) client/third party information which was not verified by ERM except to the extent required by the scope of services, and ERM does not accept responsibility for omissions or inaccuracies in the client/third party information; and (b) information taken at or under the particular times and conditions specified, and ERM does not accept responsibility for any subsequent changes. This report has been prepared solely for use by, and is confidential to, the client and ERM accepts no responsibility for its use by other persons. This report is subject to copyright protection and the copyright owner reserves its rights. This report does not constitute legal advice.

CONTENTS

EXECUTIVE SUMMARY

1	INTRODUCTION	
1.1	INTRODUCTION	1
1.2	BACKGROUND	1
1.2.1	GATEWAY PROCESS	4
1.2.2	DRAFT GOSFORD LOCAL ENVIRONMENTAL PLAN 2009	7
1.3	THE PROPOSAL	8
1.3.1	AMENDMENTS	10
1.4	SUPPORTING SMALL BUSINESS	12
1.5	SCOPE OF LES	13
1.6	SITE DESCRIPTION AND LAND USE	20
1.7	REPORT STRUCTURE	24
2	PLANNING CONTEXT	
2.1	STATE PLANNING	25
2.1.1	ENVIRONMENTAL PLANNING AND ASSESSMENT ACT 1979	25
2.1.2	STATE ENVIRONMENTAL PLANNING POLICY (EXEMPT AND COMPLYING DEVELOPMENT CODES) 2008	25
2.1.3	STATE ENVIRONMENTAL PLANNING POLICY (INFRASTRUCTURE) 2007	26
2.1.4	STATE ENVIRONMENTAL PLANNING POLICY 19 – BUSHLAND IN URBAN AREAS	28
2.1.5	STATE ENVIRONMENTAL PLANNING POLICY 44 – KOALA HABITAT PROTECTION	28
2.1.6	STATE ENVIRONMENTAL PLANNING POLICY 55 – REMEDIATION OF LAND	29
2.1.7	STATE ENVIRONMENTAL PLANNING POLICY 71 – COASTAL PROTECTION	29
2.2	REGIONAL PLANNING	30
2.2.1	SYDNEY REGIONAL ENVIRONMENTAL PLAN 6 – GOSFORD COASTAL AREAS	30
2.2.2	CENTRAL COAST REGIONAL STRATEGY	30
2.3	LOCAL PLANNING INSTRUMENTS	30
2.3.1	DRAFT GOSFORD LOCAL ENVIRONMENTAL PLAN 2009	30
2.3.2	SUMMARY OF PROPOSED CHANGES TO DRAFT GOSFORD LOCAL ENVIRONMENTAL PLAN 2009	35
2.4	MINISTERIAL DIRECTIONS AND STRATEGIC DOCUMENTS	37
2.4.1	ENVIRONMENTAL PLANNING AND ASSESSMENT ACT – SECTION 117 DIRECTIONS	37
2.4.2	CENTRAL COAST REGIONAL STRATEGY	47
2.4.3	GOSFORD VISION 2025	52
2.4.4	NEW SOUTH WALES COASTAL POLICY 1997	53
2.4.5	COASTAL DESIGN GUIDELINES FOR NEW SOUTH WALES	54
2.4.6	COASTAL MANAGEMENT GUIDELINES	55
2.5	GOSFORD CITY COUNCIL LOCAL POLICIES AND PLANS	56
2.5.1	GOSFORD CITY COUNCIL RAINFOREST POLICY	56
2.5.2	GOSFORD CITY COUNCIL LANDSCAPE AND VEGETATION MANAGEMENT POLICY	56

CONTENTS

2.5.3	<i>GOSFORD CITY COUNCIL EROSION/SEDIMENTATION CONTROL POLICY</i>	56
2.5.4	<i>GOSFORD CITY COUNCIL POLICY ON REZONING CONSERVATION LAND</i>	57
2.5.5	<i>GOSFORD CITY COUNCIL BIODIVERSITY STRATEGY</i>	58
2.5.6	<i>TERRIGAL LAGOON MANAGEMENT STRATEGY</i>	59
2.5.7	<i>DEVELOPMENT CONTROL PLAN 89 – SCENIC QUALITY</i>	60
2.5.8	<i>DEVELOPMENT CONTROL PLAN 163 – GEOTECHNICAL REQUIREMENTS FOR DEVELOPMENT APPLICATIONS.</i>	62
2.5.9	<i>DRAFT GOSFORD RESIDENTIAL STRATEGY</i>	62
2.5.10	<i>DRAFT GOSFORD DEVELOPMENT CONTROL PLAN 2009</i>	63
3	<i>ECONOMIC AND SOCIAL IMPACT ASSESSMENT</i>	
3.1	<i>PILOT PROJECT</i>	64
3.2	<i>NEED FOR PROPOSAL</i>	65
3.2.1	<i>EMPLOYMENT</i>	65
3.2.2	<i>SMALL AND HOME BASED BUSINESSES</i>	70
3.2.3	<i>FACILITATION OF ECONOMIC GROWTH</i>	71
3.3	<i>RELATIONSHIP WITH EXISTING BUSINESSES</i>	72
3.4	<i>LONG TERM SOCIAL AMENITY IMPACTS</i>	73
3.5	<i>PROVISION OF SERVICES</i>	74
3.5.1	<i>HARD INFRASTRUCTURE</i>	74
3.5.2	<i>SOFT INFRASTRUCTURE</i>	77
3.6	<i>LANDHOLDER EXPECTATIONS</i>	80
3.6.1	<i>ONGOING OPERATIONS AND IMPACTS</i>	81
3.6.2	<i>INCREASED DEVELOPMENT PRESSURE</i>	81
4	<i>ENVIRONMENTAL IMPACT ASSESSMENT</i>	
4.1	<i>SOILS AND GEOTECHNICAL</i>	84
4.1.1	<i>INTRODUCTION</i>	84
4.1.2	<i>SITE DESCRIPTION</i>	84
4.1.3	<i>SLOPE RISK ASSESSMENT</i>	84
4.2	<i>FLORA AND FAUNA</i>	85
4.2.1	<i>INTRODUCTION</i>	85
4.2.2	<i>SURVEY RESULTS</i>	87
4.2.3	<i>DEVELOPMENT AND BIODIVERSITY CONSERVATION PROPOSALS</i>	89
4.2.4	<i>CONCLUSIONS</i>	91
4.3	<i>WATER CYCLE MANAGEMENT</i>	92
4.3.1	<i>INTRODUCTION</i>	92
4.3.2	<i>STORMWATER QUANTITY MANAGEMENT</i>	93
4.3.3	<i>STORMWATER QUALITY MANAGEMENT</i>	93
4.3.4	<i>RECOMMENDATIONS</i>	96
4.4	<i>BUSHFIRE</i>	97
4.4.1	<i>INTRODUCTION</i>	97
4.4.2	<i>BUSHFIRE ATTACK ASSESSMENT</i>	97
4.4.3	<i>RECOMMENDATIONS</i>	101
4.5	<i>RIPARIAN AREAS AND WATER COURSES</i>	101
4.6	<i>ABORIGINAL CULTURAL HERITAGE</i>	103

CONTENTS

4.6.1	SURVEY RESULTS	104
4.6.2	CONSULTATION	105
4.6.3	CONCLUSION AND RECOMMENDATIONS	105
4.7	TRAFFIC	106
4.8	VISUAL	107
4.9	CONTAMINATED SITE ASSESSMENT	109
4.9.1	INTRODUCTION	109
4.9.2	SCOPE OF WORKS/METHODOLOGY	109
4.9.3	SITE CHARACTERIZATION	109
4.9.4	CONCLUSIONS AND RECOMMENDATIONS	110
5	SITE SELECTION AND CONSTRAINTS ANALYSIS	
5.1	INTRODUCTION	111
5.2	CONSTRAINTS MAPPING	111
5.3	CONCEPT PLAN	112
6	SUSTAINABILITY ASSESSMENT AND OUTCOMES	
6.1	INTRODUCTION	115
6.2	ECONOMIC SUSTAINABILITY	116
6.2.1	INTRODUCTION	116
6.2.2	SITE CAPACITY	116
6.2.3	HOME BUSINESS DEVELOPMENT	117
6.2.4	CONTRIBUTION TO THE WIDER ECONOMY	117
6.2.5	OUTCOMES TO BE IMPLEMENTED	118
6.3	SOCIAL SUSTAINABILITY	118
6.3.1	INTRODUCTION	118
6.3.2	DIRECT IMPACTS	119
6.3.3	CONTRIBUTION TO SOCIAL WELL BEING	119
6.3.4	INTERNAL QUALITY OF LIFE	120
6.3.5	OUTCOMES TO BE IMPLEMENTED	120
6.4	ECOLOGICAL SUSTAINABILITY	121
6.4.1	INTRODUCTION	121
6.4.2	GLOBAL WARMING AND CLIMATE CHANGE	121
6.4.3	OFF SITE ECOLOGICAL IMPACTS	122
6.4.4	ON SITE ECOLOGICAL IMPACTS	122
6.4.5	OUTCOMES TO BE IMPLEMENTED	123
6.5	IMPLEMENTATION	123
6.5.1	INTERIM DEVELOPMENT ORDER No 122 (IDO No. 122), GOSFORD PLANNING SCHEME ORDINANCE (GPSO) AND DRAFT LEP 2009	124
6.5.2	VOLUNTARY PLANNING AGREEMENT	124
6.5.3	PARKSIDE DEVELOPMENT CONTROL PLAN	125
6.5.4	COMMUNITY TITLE AND PRECINCT MANAGEMENT PLAN	126
6.6	CONCLUSION	128
	REFERENCES	

CONTENTS

ANNEXURES

ANNEX A	LOCAL ENVIRONMENTAL STUDY SPECIFICATION
ANNEX B	TRAFFIC IMPACT ASSESSMENT
ANNEX C	ECOLOGICAL SITE ASSESSMENT
ANNEX D	ASSESSMENT OF ADEQUACY OF BIODIVERSITY OFFSETS
ANNEX E	PHASE 1 ENVIRONMENTAL SITE ASSESSMENT
ANNEX F	ABORIGINAL CULTURAL HERITAGE ASSESSMENT
ANNEX G	WATER CYCLE MANAGEMENT PLAN
ANNEX H	COMMUNITY MANAGEMENT STATEMENT
ANNEX I	BUSHFIRE RISK ASSESSMENT
ANNEX J	SOCIAL IMPACT ASSESSMENT
ANNEX K	GEOTECHNICAL ASSESSMENT
ANNEX L	CREATING A WIRED HOME BUSINESS COMMUNITY ON THE CENTRAL COAST
ANNEX M	ECONOMIC IMPACT ASSESSMENT REPORT
ANNEX N	VISUAL IMPACT ASSESSMENT
ANNEX O	EVIDENCE OF CONSULTATION WITH DWE
ANNEX P	WATER QUALITY AND QUANTITY REPORT
ANNEX Q	COMPLIANCE TABLES
ANNEX R	DCP 122 CUT AND FILL RESTRICTIONS COMPLIANCE
ANNEX S	WATER AND SEWER OPTIONS REPORT
ANNEX T	CONSIDERATION OF RAINFOREST POLICY STATEMENT OF ENVIRONMENTAL EFFECTS
ANNEX U	DRAFT PARKSIDE DEVELOPMENT CONTROL PLAN
ANNEX V	CUMBERLAND ECOLOGY REVIEW
ANNEX W	ASSESSMENT OF REVISED LAYOUT OF PROPOSED PARKSIDE DEVELOPMENT

LIST OF TABLES

TABLE 2.1	E3 ZONE LAND USE PERMISSIBILITY MATRIX	33
TABLE 3.1	CONSISTENCY WITH THE REGIONAL ECONOMIC DEVELOPMENT AND EMPLOYMENT STRATEGY (REDES)	66
TABLE 3.2	ECONOMIC IMPACT – FULLY OPERATIONAL	71
TABLE 4.1	MUSIC MODELLING	95
TABLE 4.2	PLANNING FOR BUSHFIRE PROTECTION – CONSISTENCY WITH OBJECTIVES	98

LIST OF FIGURES

FIGURE 1.1	LOCALITY PLAN	2
FIGURE 1.2	AERIAL PHOTOGRAPH OF SITE	3
FIGURE 1.3A	GOSFORD PLANNING SCHEME ORDINANCE AND IDO No. 122 EXISTING ZONING PLAN	5
FIGURE 1.3B	GOSFORD LOCAL ENVIRONMENTAL PLAN 2009	6
FIGURE 1.4	PROPOSED CHANGE TO GLEP 2009	11
FIGURE 1.5	CADASTRAL BOUNDARIES	21
FIGURE 3.1	E2 ENVIRONMENTAL CONSERVATION LAND WITHIN THE TERRIGAL TO ERINA URBAN CORRIDOR	82
FIGURE 4.1	VEGETATION COMMUNITIES	88
FIGURE 4.2A	ONSITE DETENTION	94
FIGURE 4.2B	ONSITE DETENTION	95
FIGURE 4.3	BUSHFIRE HAZARD AREAS	98
FIGURE 4.4	RIPARIAN AREA MANAGEMENT PLAN	104
FIGURE 5.1	OVERALL CONSTRAINTS ASSESSMENT	113
FIGURE 5.2	CONCEPT PLAN	114

LIST OF PHOTOGRAPHS

PHOTOGRAPH 1	VIEW FROM NORTH EAST CORNER OF THE SITE	22
PHOTOGRAPH 2	VIEW EASTWARDS FROM RIDGELINE	22
PHOTOGRAPH 3	ELECTRICITY EASEMENT	23
PHOTOGRAPH 4	AREA TO BE DEVELOPED FOR PURPOSES OF OPEN SPACE AND COMMUNITY FACILITIES	23
PHOTOGRAPH 5	EXISTING TEMPORARY RETENTION BASIN	103
PHOTOGRAPH 6	WATER COURSE RUNNING THROUGH WESTERN PORTION OF SITE	103

EXECUTIVE SUMMARY

Crighton Properties Pty Ltd commissioned Environmental Resources Management Australia Pty Ltd to prepare a Local Environmental Study (LES) in accordance with Section 57 of the Environmental Planning and Assessment Act 1979. It is proposed to prepare a draft Local Environmental Plan pertaining to Lot 2 DP 1111382, Lots 8 & 9 DP 876102, Lot 202 DP 831864, Lot 4 DP 37914 and Lot 1 DP 381971 to facilitate the development of a hi – tech home business estate to cater for the growing trend towards small business development within New South Wales.

The concept of a hi –tech home business estate has been developed by academic staff at the Universities of Sydney and Newcastle and aims to attract small businesses to establish and relocate to the Central Coast, allowing principals and staff to work from residences with supporting business facilities available on site. In order to allow for the establishment of such a development, a rezoning is required to put in place some certainty regarding the outcomes for the site. The home employment community will have areas for open space, community facilities and a home business support hub.

A number of key documents strongly support the goals which a hi – tech home business estate would achieve, particularly in relation to the attainment of stated economic, social and ecological goals. These include:

- consistency with the aims and objectives of State Environmental Planning Policy 71 - Coastal Protection;*
- contribution towards the attainment of employment and housing stock numbers as outlined within the Central Coast Regional Strategy;*
- promotion of key economic attributes contained within the Central Coast Regional Strategy;*
- consistency with all measures of sustainability criteria as contained within the Central Coast Regional Strategy; and*
- comprehensively addressing key focus areas as outlined within the Gosford Vision 2025.*

The ability of the proposal to act as a key driver facilitating economic growth at the local and regional levels is a key supporting element. This level of economic growth is able to be initiated and sustained whilst placing minimal demand on existing engineering and social infrastructure.

The capacity of the site to be developed was the subject of rigorous assessments looking at key issues such as ecology, riparian land, Aboriginal cultural heritage, traffic impacts, water cycle management, bushfire risks, potential sources of contamination, geotechnical constraints and visual impacts. As a result of undertaking these assessments, a constraints and opportunities analysis was prepared to identify those areas of the site which are relatively unconstrained, those that could be developed with appropriate management measures being implemented, and areas which are inappropriate for development. A concept plan was then formulated which provides an indicative subdivision layout. The following measures are also recommended as a result of the constraints and opportunities analysis:

- dedication of an area of 27.28 hectares to Council's Coastal Open Space System;*
- development and implementation of a detailed Ecological Site Management Plan;*
- development and implementation of a Vegetation Management Plan;*
- development and implementation of a comprehensive Water Cycle Management Plan; and*
- retention of key vegetation to minimise erosion of the quality of the visual landscape.*

In order to ensure that the economic, ecological and social outcomes assessed as resulting from the development (a hi – tech home business estate) are achieved, a multi layered approach is recommended. This comprises new planning controls, a Community Title Management Statement (under the Community Land Development Act, 1989), a Voluntary Planning Agreement and Development Control Plan (DCP). The new planning controls will provide the primary means to allow for development to be undertaken, the Community Title Management Statement assigns responsibilities for the estate's residents, the Voluntary Planning Agreement provides commitment to specified outcomes upon the site, with the Development Control Plan setting out detailed guidelines for development of each element of the proposal.

The concept of a hi – tech home business estate has substantial merit. It has the capacity to provide substantial economic benefits to the local economy, provide employment and act as a model for replication in other areas. With the implementation of appropriate management measures, the site has the capacity to accommodate the proposed development. Given the benefits which will accrue it is recommended that this LES be publicly exhibited.

Crichton Properties Pty Ltd (Crichton Properties) has commissioned Environmental Resources Management Australia Pty Ltd (ERM) to prepare a local environmental study (LES) in accordance with Section 57 of the *Environmental Planning and Assessment Act 1979* (EP&A Act 1979) for the rezoning of Lot 2 DP 1111382, Lots 8 & 9 DP 876102, Lot 202 DP 831864, Lot 4 DP 37914 and Lot 1 DP 381971 (referred to as the site) from the current Environmental 7(a) Conservation and Scenic Protection (Conservation) and 7(C2) Conservation And Scenic Protection (Scenic Protection - Rural Small Holdings) zones under Gosford Interim Development Order No 122 to R2 Low Density Residential, RE1 Public Recreation, E2 Environmental Conservation and RE2 Private Recreation under draft Gosford Local Environmental Plan 2009 (draft GLEP 2009).

The following addition to Clause 5.4(2) of draft GLEP 2009 is also proposed by inserting the words:

"...unless the business is located upon Lot 202 DP 831864, Lots 8 and 9 DP87601, Lot 2 DP 1111392, Lot 4 DP 37914 and Lot 1 DP 381971 located at Kings Avenue, Terrigal, in which case the business must not use more than 60 square metres of floor area".

Figure 1.1 illustrates the location of the site while *Figure 1.2* contains an aerial photograph of the site and its surrounds.

Specifications for the preparation of a Local Environmental Study pursuant to Section 57 of the *Environmental Planning and Assessment Act 1979* were provided to Crichton Properties by Gosford City Council on 4 October 2007. At that time, Interim Development Order No. 122 and Gosford Planning Scheme Ordinance were (and currently remain) the prevailing environmental planning instruments governing land use on the site.

In October 2008 a draft LES was lodged with Council in respect of the proposed rezoning of the site to allow low density residential and environmental conservation uses. The draft LES was based on a Concept Plan to develop approximately 145 home based office residences connected by high speed optic fibre communication technology and the dedication of approximately 18 hectares of land to Council under Council's Coastal Open Space System (COSS).



Figure 1.1

Locality Plan

Source:
Conacher Environmental Group

Client:	Crighton Properties Pty Ltd		
Project:	Parkside Terrigal Rezoning Report - Local Environmental Study		
Drawing No:	0050265h_LES_Nov10_C001_R0.cdr		
Date:	14/12/2010	Drawing size:	A4
Drawn by:	JD	Reviewed by:	AA
Scale:	Refer to Scale Bar		



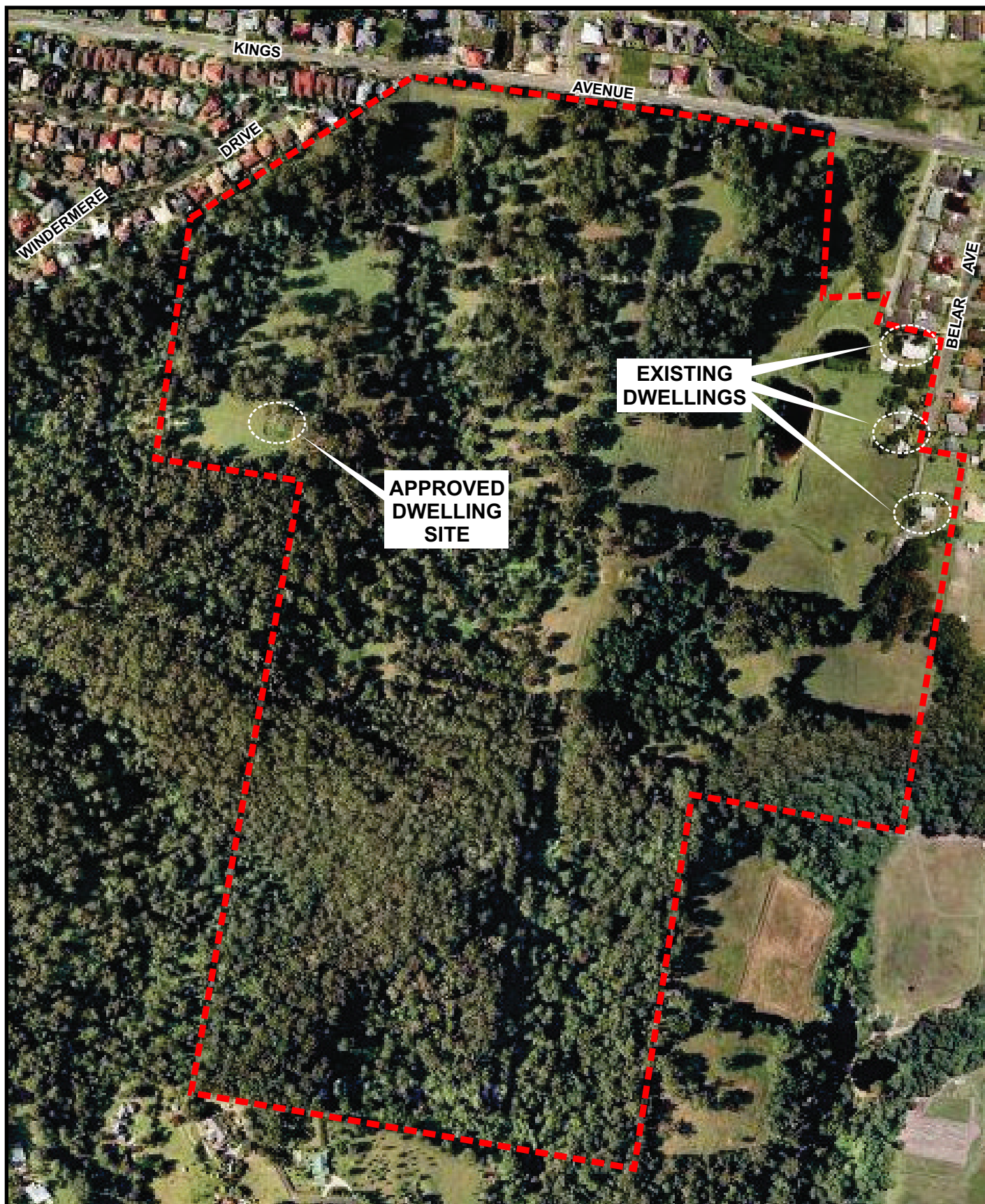
0 500 1000m

Maps and figures contained within this document may be based on third party data, may not be to scale and is intended for use as a guide only. ERM does not warrant the accuracy of any such maps or figures.

Environmental Resources Management Australia Pty Ltd
53 Bonville Avenue, Thornton, NSW 2322
Telephone +61 2 4964 2150

R0	Preliminary Issue	14-12-10	JD
Suffix	Revisions	Date	Init



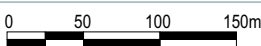


Legend
 Site

Source:
 © 2010 Google Earth

R0	15-12-10	JD
R1	Preliminary Issue	JD
Suffix	Revisions	Date Init

Figure 1.2
Aerial Photograph of Site

Client:	Crighton Properties Pty Ltd	Environmental Resources Management Australia Pty Ltd 53 Bonville Avenue, Thornton, NSW 2322 Telephone +61 2 4964 2150
Project:	Parkside Terrigal Rezoning Report - Local Environmental Study	
Drawing No:	0050265h_LES_Nov10_C002_R1.cdr	
Date:	28/01/2011	
Drawn by:	JD	
Reviewed by:	AA	
Scale:	Refer to Scale Bar	
 		
Maps and figures contained within this document may be based on third party data, may not be to scale and is intended for use as a guide only. ERM does not warrant the accuracy of any such maps or figures.		



Council undertook an initial assessment of the draft LES and provided comments in a letter dated 19 February 2009. At its meeting of 4 May 2010 Council resolved that the LES be adopted and that the rezoning application be supported for further processing.

At the Section 62 Consultation stage, the NSW Department of Environment, Climate Change and Water (DECCW) expressed concern regarding several aspects of the proposal, including that it does not achieve the “improve or maintain existing biodiversity” benchmark, development in the vicinity of a rainforest and potential fragmentation of management of a riparian zone. Additional measures have been taken to address the issues raised by DECCW as explained in *section 1.3.1* of this LES.

Figure 1.3A shows the current zoning of the site under Gosford Planning Scheme Ordinance and IDO No 122, *Figure 1. 3B* shows the proposed zoning of the site under draft GLEP 2009 as it has been publicly exhibited while *Figure 1.4* shows the zoning under the proposed amendments to draft GLEP 2009.

1.2.1 Gateway Process

In July 2009, the NSW Government changed the way that local environmental plans (LEPs) are developed and approved. This system is known as the 'gateway' plan-making process. Draft LEP amendments begun prior to 1 July 2009 were required to be completed within 12 or 18 months of 1 July 2009, depending on whether a Section 65 Certificate had already been issued. The gateway system has the following steps:

- Planning proposal – preparation of a planning proposal identifying the effect of and justification for the plan;
- Gateway – the Minister (or delegate) determines whether the planning proposal is to proceed. This gateway acts as a checkpoint to ensure that the proposal is justified before further studies are undertaken and resources are allocated to the preparation of a plan. A community consultation process is also determined at this time. Consultations occur with relevant public authorities and, if necessary, the proposal is varied;
- Community consultation – the proposal is publicly exhibited (generally low impact proposals for 14 days, others for 28 days). A person making a submission may also request a public hearing be held; and
- Assessment – the relevant planning authority considers public submissions and the proposal is varied as necessary. Parliamentary Counsel then prepares a draft local environmental plan for the Minister’s (or delegates) approval.

As the amending LEP for Parkside @ Terrigal was unlikely to be gazetted by 1 January 2011, Council formally resolved on 14 December 2010 to seek to have the amending LEP become subject to the gateway process.

Legend



Zone Table

- 2(a) Residential
- 6(c) Open Space (Recreation)
- 7(a) Conservation
- 7(c2) Scenic Protection-rural small holdings
- 9(a) Restrictid Development

Source:

Gosford City Council

Suffix	Revisions	Date	Init
R0	Preliminary Issue	17-12-10	JD
R1		28-01-12	JD

Figure 1.3a

Interim Development Order No.122 Current Zoning Plan

Client:	Crighton Properties Pty Ltd
Project:	Parkside Terrigal Rezoning Report - Local Environmental Study
Drawing No:	0050265h_LES_Nov10_C014_R1.cdr
Date:	28/01/2011
Drawn by:	JD
Reviewed by:	AA

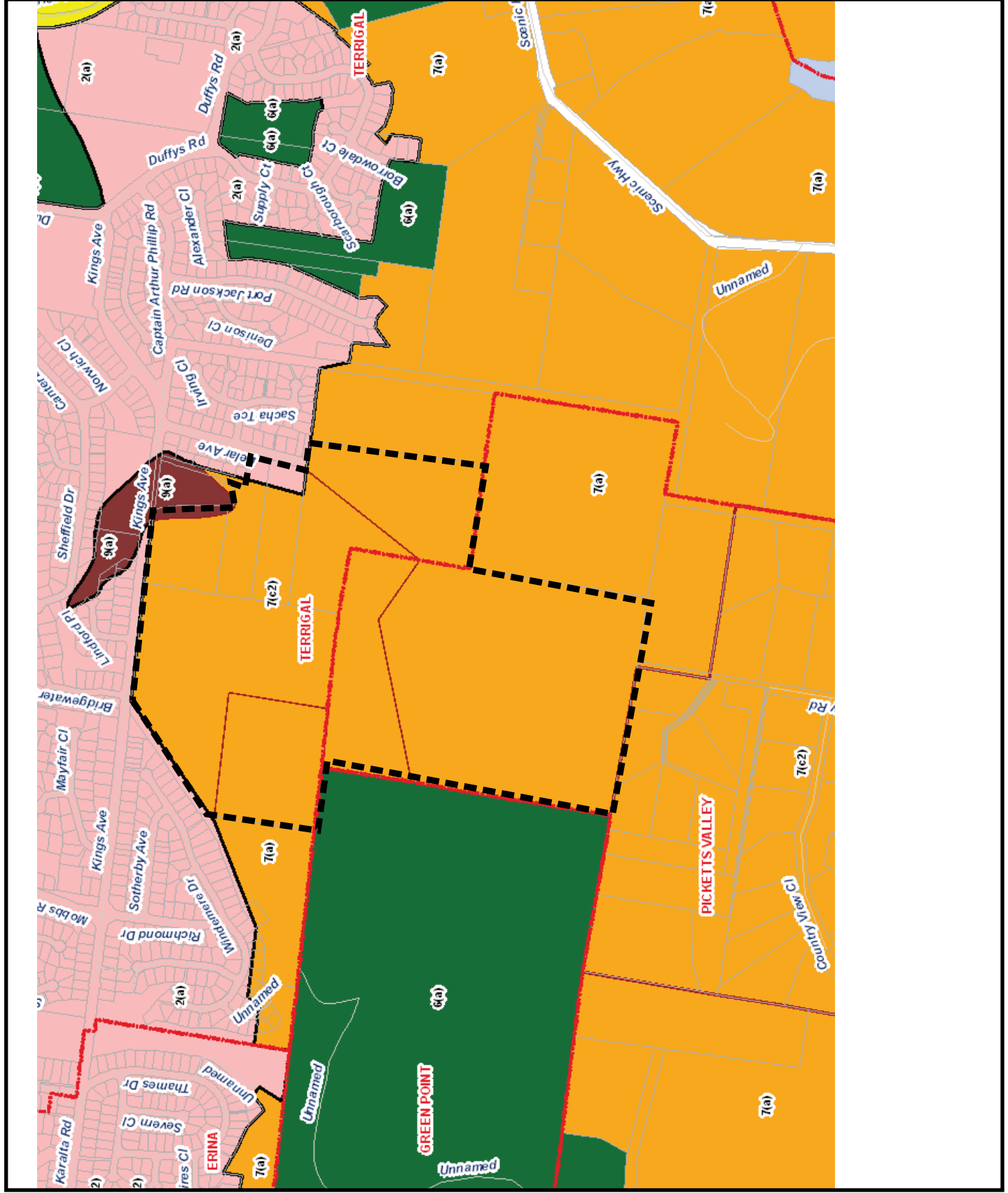
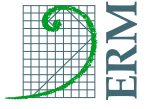


Scale: Refer to Scale Bar

0 100 200 300m

Maps and figures contained within this document may be based on third party data, may not be to scale and is intended for use as a guide only. ERM does not warrant the accuracy of any such maps or figures.

Environmental Resources Management Australia Pty Ltd
53 Bonville Avenue, Thornton, NSW 2322
Telephone +61 2 4964 2150



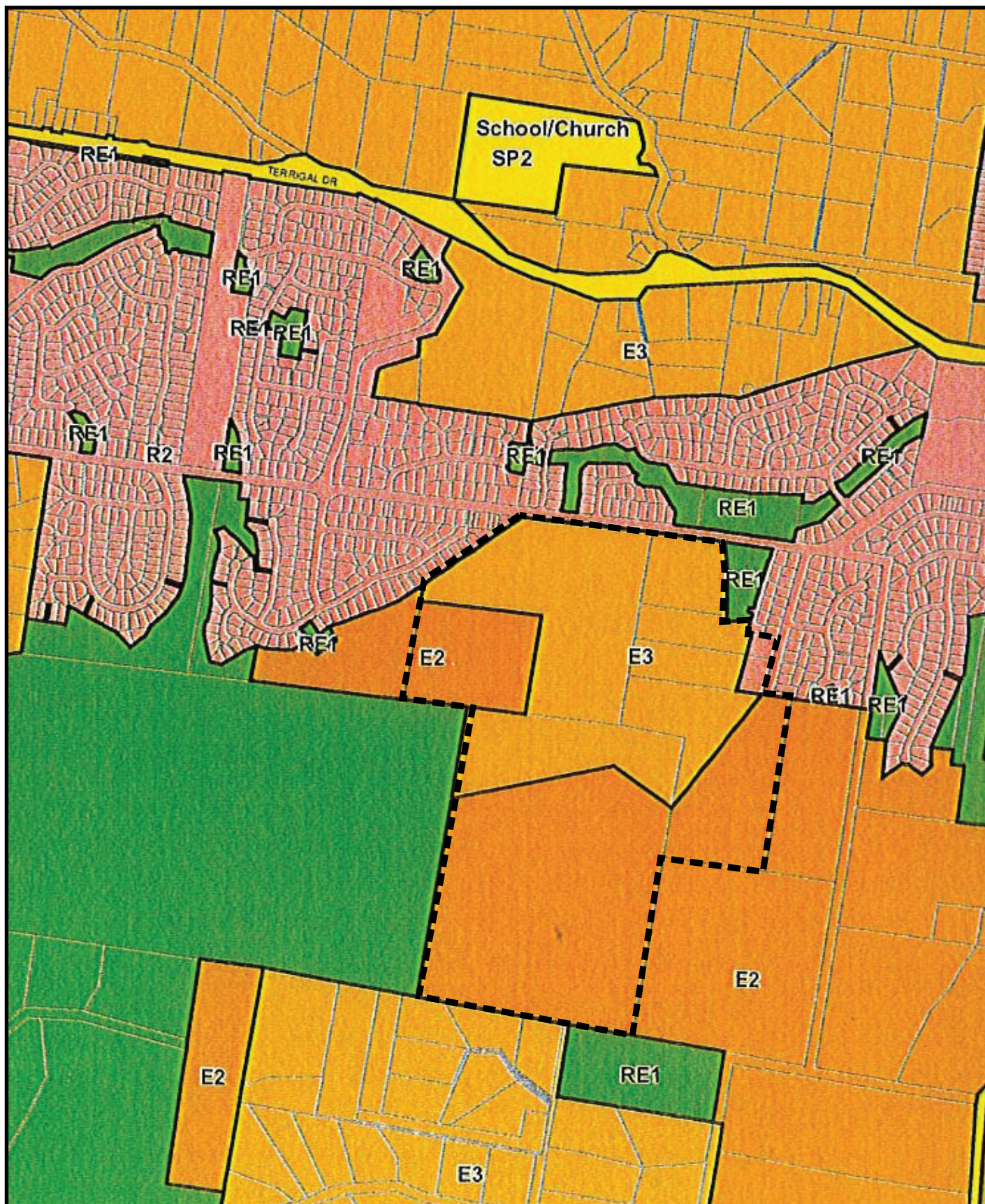


Figure 1.3b

Legend

Site

GLEP 2009

- R2 Low Density Residential
- SP2 Infrastructure
- RE1 Public Recreation
- E2 Environmental Conservation
- E3 Environmental Management

Source:
Gosford City Council

R0		15-12-10	JD
R1	Preliminary Issue	28-01-11	JD
Suffix	Revisions	Date	Init

Client:	Crighton Properties Pty Ltd		
Project:	Parkside Terrigal Rezoning Report - Local Environmental Study		
Drawing No:	0050265h_LES_Nov10_C003_R1.cdr		
Date:	28/01/2011	Drawing size:	A4
Drawn by:	JD	Reviewed by:	AA
Scale:	Refer to Scale Bar		



0 100 200 300m

Maps and figures contained within this document may be based on third party data, may not be to scale and is intended for use as a guide only. ERM does not warrant the accuracy of any such maps or figures.

Gosford Local Environmental Plan 2009 Proposed Zoning Plan

Environmental Resources Management Australia Pty Ltd
53 Bonville Avenue, Thornton, NSW 2322
Telephone +61 2 4964 2150



1.2.2

Draft Gosford Local Environmental Plan 2009

On 6 May 2008, Council considered the adoption of the Draft Gosford Local Environmental Plan 2009 (draft GLEP 2009) which is proposed to become the primary environmental planning instrument within the Gosford local government area (LGA). Draft GLEP is being prepared in accordance with the *Standard Instrument (Local Environmental Plan) Amendment Order 2007*. In May 2008 Council resolved as follows:

- A. *Council prepare all the statutory documentation and forward the Gosford DLEP 2009 to the Department of Planning pursuant to Section 64 of the Environmental Planning and Assessment Act 1979 and request that a certificate pursuant to Section 65 be issued to allow public consultation.*
- B. *Council also forward a copy of draft Gosford Community Strategic Plan 2031 which provides the directions for Gosford DLEP 2009 and relevant supporting documentation.*
- C. *Council take no further action in relation to those DLEP 2009 applications outlined in Attachment B and notify the applicants of Council's decision (these were identified in Tables A, B and C of Council's resolution of 11th August 2005 to be considered in the preparation of the Citywide comprehensive DLEP).*
- D. *Council incorporate those DLEP applications outlined in Attachment C into the Gosford DLEP 2009 in the manner outlined and notify the applicants of Council's decision.*
- E. *Council endorse the draft Gosford Community Strategic Plan 2031 for public exhibition with Gosford DLEP 2009.*
- F. *Upon commencement of public exhibition Council write to likely affected 7(c2) zoned land owners to bring to their attention to the fact that despite Council's decision to request the Minister for Planning to do so the Council cannot guarantee that the current 'bonus lots provisions' will continue to be available upon gazettal of the new LEP, hence they may wish to consider whether there is scope for them to utilize these provisions now.*
- G. *Council write to applicants with current DLEPs before Council and advise them of Council's decision.*
- H. *Council rezone those sites in Attachment D which are not going into a comparable zone and write to owners and advise of Council's decision.*
- I. *Council rezone those sites outlined in Attachment E which are not going into a comparable zone and write to agencies and advise of Council's decision.*
- J. *The Director – Environment and Planning arrange for Councillor workshops at appropriate stages of the Gosford LEP 2009 progress.*

The site is currently split into two zones under the provisions of draft GLEP 2009. These are E3 “Environmental Management” and E2 “Environmental Conservation” under the provisions of this plan. *Figure 1.3B* shows the proposed zones for the site under draft GLEP 2009.

Draft GLEP 2009 has been exhibited and attracted approximately 1500 submissions. It is understood that draft GLEP is not expected to be finalised until mid 2011.

Additionally, there have been substantial changes to the legislative framework applying to the strategic direction of the Central Coast area, including amendments to the EP&A Act 1979 and the commencement of the Central Coast Regional Strategy.

This LES has been updated to be consistent with a planning proposal prepared by Crighton Properties to rezone the site which was supported by Gosford City Council at its meeting on 14 December 2010 and which has been forwarded to DoP for a gateway determination. In particular, the following should be noted:

- The Local Environmental Study will continue to cover the study area as defined within the specifications;
- On the advice of Council, the Local Environmental Study has been prepared reflecting the future planning framework namely draft GLEP 2009;
- The Local Environmental Study has been prepared to reflect the requirements of the Central Coast Regional Strategy; and
- An assessment of the proposed rezoning to reflect proposed amendments to draft GLEP 2009, taking into account all accompanying strategic documents has been undertaken and incorporated into the LES.

This approach is consistent with Councils resolution and the planning circular (OS 07-020) issued by the Department of Planning on 19 December 2007 which requires that all draft LEP’s issued to the Department of Planning be in accordance with the 2008 version of the *Standard Instrument* (Local Environmental Plan) Amendment Order 2007. Draft GLEP 2009 is being developed in accordance with this Order.

1.3

THE PROPOSAL

The proposal is to effect a rezoning of the site so that a “hi tech” home business estate can be developed which will create a significant number of jobs within a high quality, low environmental impact development. The unique concept of a home based business estate has been developed in partnership by Crighton Properties and the Universities of Sydney and Newcastle. The project has the potential to attract a total of over 200 jobs into

the Gosford local government area (LGA). Development is proposed to be undertaken as a staged community title subdivision under the provisions of the Community Land Development Act 1989.

The intent is to attract small business to establish and relocate to the Central Coast, allowing principals and staff to work from residences with supporting business facilities available on site. This distinctive concept was developed with Professor Ed Blakely and Dr Tony Gilmore of the University of Sydney. Crighton Properties will provide funding to facilitate the monitoring of the success of the project in attracting jobs to the region. Research will be conducted by the University of Sydney, based on the results of the monitoring undertaken. A high quality community title estate is proposed to be developed which avoids many of the ongoing maintenance costs generally borne by Council, whilst ensuring development will be compatible with existing residential and conservation land uses. All internal roads will be dedicated as public roads (the proposed development is not to be a gated community).

In essence, the rezoning will facilitate the development of approximately 145 home based business residences connected by high speed optic fibre communication technology. These residences will be supported by a dedicated on site 'business support hub' consisting of meeting rooms, conference facilities, clerical support, child minding facilities and other business support related services, some of which will be available for use by the general public. Additional community facilities such as the tennis courts and playground will be open to the general public.

Development under the Community Land Development Act 1989 will ensure that no house will be built that does not include a home business with a floor area between 30 and 60 square metres with a separate access and additional off street parking.

Included in the package of environmental benefits proposed for the site are:

- water recycling system which will minimise the demand for potable water by up to 50% as well as minimizing the discharge of effluent to sewer;
- dedication of a significant parcel of land to Council under Councils Coastal Open Space System (COSS). This land comprises approximately 27.28 hectares and will provide a link which will allow the residents of Avoca Beach to access Kincumber Mountain Reserve via Picketts Valley Road;
- prior to dedication of the land, Crighton Properties will undertake rehabilitation works on areas of degraded bushland; and
- a weed removal and riparian bushland regeneration plan of works has been prepared which aims to restore the ecological integrity of the creek/drainage lines which exist on site and integrate these into the proposed development.

Specifically, it is proposed to rezone the site from the current Environmental 7(a) Conservation and Scenic Protection (Conservation) and 7(C2) Conservation And Scenic Protection (Scenic Protection - Rural Small Holdings) zones under Gosford Interim Development Order No 122 to R2 Low Density Residential, RE1 Public Recreation, E2 Environmental Conservation and RE2 Private Recreation under draft Gosford Local Environmental Plan 2009 (draft GLEP 2009).

Sensitive environmental areas across the site which are to be dedicated to the Coastal Open Space System are to be rezoned to RE1 *"Public Recreation"*. Sensitive environmental areas across the site which are to remain in private ownership are to be rezoned to RE2 *"Private Recreation"* - this includes the drainage corridors. The vegetated area in the north west of the site mapped as rainforest is to be rezoned to E2 Environment Conservation and the residual area of land is to be zoned R2 *"Low Density Residential"*.

The following addition to Clause 5.4(2) of draft GLEP 2009 is also proposed by inserting the words:

"...unless the business is located upon Lot 202 DP 831864, Lots 8 and 9 DP87601, Lot 2 DP 1111392, Lot 4 DP 37914 and Lot 1 DP 381971 located at Kings Avenue, Terrigal, in which case the business must not use more than 60 square metres of floor area".

Figure 1.3A shows the current zoning of the site under Gosford Planning Scheme Ordinance and IDO No 122, Figure 1. 3B shows the proposed zoning of the site under draft GLEP 2009 as it has been publicly exhibited while Figure 1.4 shows the zoning under the proposed amendments to draft GLEP 2009.

1.3.1

Amendments

The footprint of the Concept Plan has been amended to overcome previous concerns raised by DECCW. The amended Concept Plan is shown at Figure 5.2. The Concept Plan includes the following changes:

- The redesign of the perimeter road from the main entrance to exclude it from the core riparian and buffer zones in the west;
- The removal of all proposed development to the south and southwest of the perimeter road;
- The removal of all residential lots along the far western boundary of the site. It should be noted however that it is still proposed to locate the community facilities to the north, beyond the rainforest buffer;
- Ensuring a fifty metre buffer area around the designated Rainforest vegetation along the western riparian corridor;

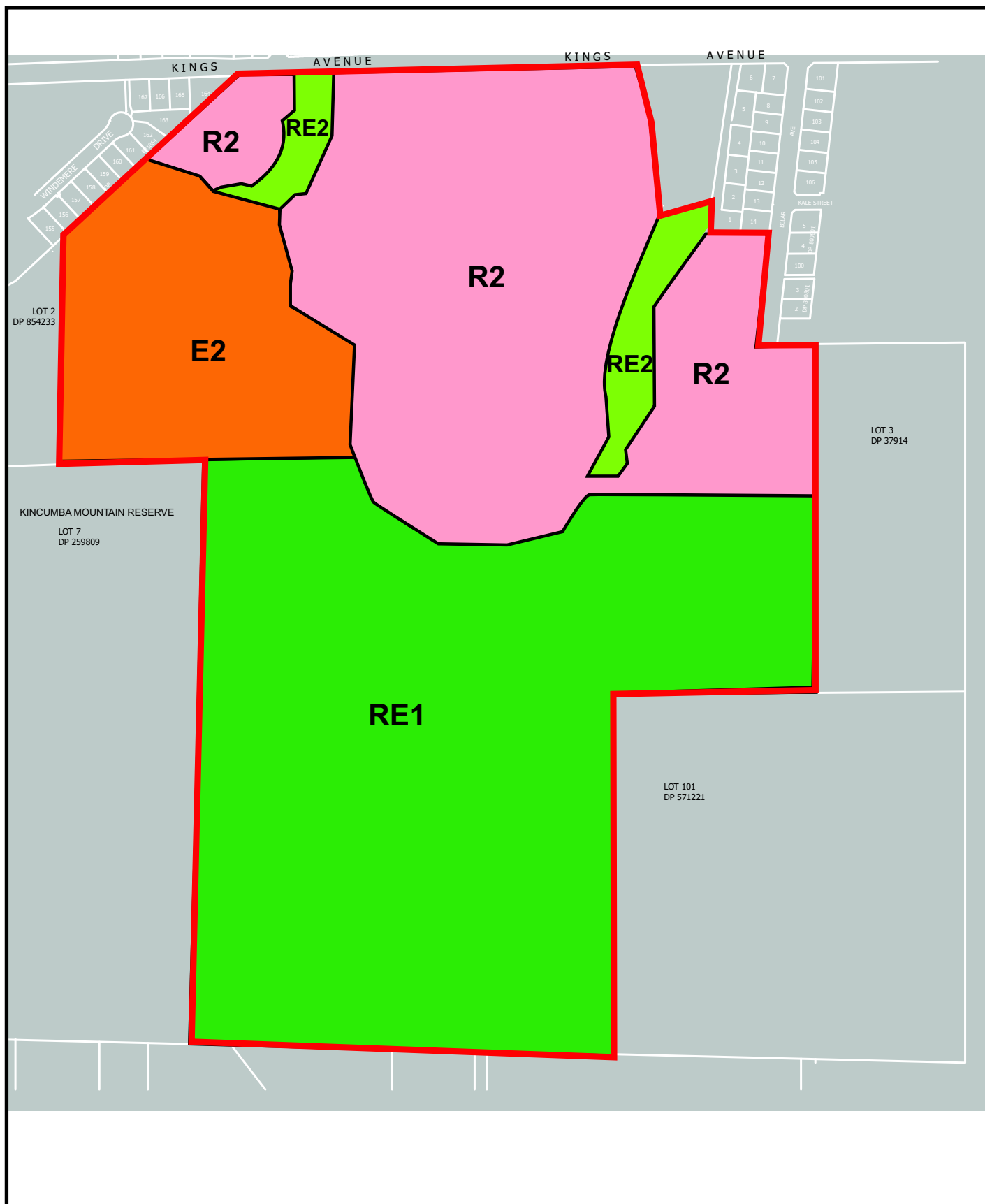


Figure 1.4

Legend

- Site
- R2 Low Density Residential
- RE1 Public Recreation
- RE2 Private Recreation
- E2 Environmental Conservation

Source:
Crighton Properties Pty Ltd

R0		15-12-10	JD
R1	Preliminary Issue	28-01-11	JD
Suffix	Revisions	Date	Init

Client:	Crighton Properties Pty Ltd		
Project:	Parkside Terrigal Rezoning Report - Local Environmental Study		
Drawing No:	0050265h_LES_Nov10_C004_R1.cdr		
Date:	28/01/2011	Drawing size:	A4
Drawn by:	JD	Reviewed by:	AA
Scale:	Refer to Scale Bar		



0 50 100 150m

Maps and figures contained within this document may be based on third party data, may not be to scale and is intended for use as a guide only. ERM does not warrant the accuracy of any such maps or figures.

Proposed Change to GLEP 2009

Environmental Resources Management Australia Pty Ltd
53 Bonville Avenue, Thornton, NSW 2322
Telephone +61 2 4964 2150



- Reducing the loss of on-site vegetation from 10.4 hectares to 7.6 hectares; and
- Increasing the proposed dedication of land to Council (under COSS) from 18 hectares to 27.28 hectares (subject to Council's willingness to accept this additional dedication).

To maintain the development yield of the site which is critical to the feasibility of the project, it is proposed to offset the loss of proposed urban areas in two locations:

1. By substituting the central park area on the ridge (originally proposed to be retained as a park) for urban development. This area was identified by DECCW as having lower biodiversity value than other areas on site which were previously proposed for development.
2. By extending the development envelope in the far east of the site into predominately cleared land which is zoned Environment 7(a). Conservation and Scenic Protection (Conservation).

It is now proposed to develop only 17.38 hectares or 32% of the 53.53 hectare Parkside @ Terrigal site. The remainder of the site will either be dedicated to Council or held under a private conservation zone. Further, the Community Association will be charged with the ongoing rehabilitation and management of all the conservation areas. As a result of the re-configuration of proposed urban areas, the ratio of vegetation offset to be provided on site has been increased from 2.7:1 to 4.3:1.

1.4 SUPPORTING SMALL BUSINESS

There is a growing trend towards home based businesses in Australia. According to research released by the Australia Bureau of Statistics (ABS) and summarised in the Sydney Morning Herald (29 April 2005):

More than half of the nations 1.3 million small businesses comprise just one person, and the ranks of those working from home are swelling. The bureau's latest figures show the proportion of small business based in the home rose from 58.3 per cent in 1997 to 67.5 per cent last June. About 70 per cent of the home-based business operators were men. The typical business is a middle aged man working 35 – 50 hours a week from home. The proportion of people working part- time in a home based business was higher than in other small businesses. But about 30 per cent of small business operators worked more than 50 hours a week, and about 5 per cent work more than 75 hours.

The growth in the small business sector is largely being driven by home based business activity. The NSW Department of State and Regional Development estimates that there are more than 282 000 home based businesses operating within New South Wales, representing 63% of the overall total of small businesses currently operating within the state (Department of State and

Regional Development 2006). Whilst providing a substantial contribution to the economy of New South Wales, home business operators are facing increasing challenges in establishing and maintaining a successful business enterprise.

Given this, an environment needs to be created which allows small and home based business to flourish and continue to contribute positively to the economy.

A number of initiatives have been put in place at all levels of government aiming to encourage small business development. The Commonwealth Government has formed “AusIndustry” which delivers approximately \$2 billion in benefits each year to small and large businesses, one of which is the Regulation Reduction Incentive Fund. This provides funds to Local Governments to assist in simplifying home business development approval processes and planning controls, as well as providing readily accessible information pertaining to these processes.

The New South Wales Department of State and Regional Development provides incentives and programs aimed at encouraging the development of small business. One example is the Innovative Technology Network which promotes business efficiency and competitiveness through the uptake of new technologies and innovative practices. Due to the relative geographical scatter of home – based businesses throughout the urban landscape, this networking requires often inaccessible fast, reliable information technology, or requires business managers to travel to access business support facilities. Given this, an opportunity has been identified to create a hi – tech business cluster, in terms of both geographical proximity and technological connectivity on the Central Coast of New South Wales. Such a concept has the capacity to provide for increased efficiency and confidence in small business operation.

1.5

SCOPE OF LES

Pursuant to Section 57 of the *Environmental Planning and Assessment Act 1979*, a final set of specifications for the preparation of the Local Environmental Study (LES) were issued and are reproduced in full in *Annex A*. This specification provides the basis for the preparation of this LES. The following specialist reports have been referred to in compiling this LES:

- *Parkside@Terrigal Employment and Economic Impact Assessment*. Prepared by Professor Scott Holmes and Parsons Brinkerhoff (2005);
- *Parkside@Terrigal “Live.....Work.....Play” Masterplan Discussion Paper* prepared by Andrews Neil (2004);
- *Creating a Wired Business Community on the Central Coast*. Prepared by Professor Tony Gilmour – University of Sydney (2005);

- *Ecological Site Assessment for Local Environmental Study – “Parkside”, Kings Avenue Terrigal* Prepared by Conacher Environmental Group (May 2010);
- *Assessment of Revised Layout of Proposed Parkside Development.* Prepared by Cumberland Ecology (September 2010);
- *Urban Capability Assessment with Respect to Slope Risk – Proposed Subdivision at Kings Avenue, Terrigal* Prepared by Coffey Geotechnics (February 2008);
- *Parkside at Terrigal – Phase 1 Environmental Site Assessment* Prepared by Environmental Resources Management Australia (July 2008);
- *Proposed Residential Development, Kings Avenue, Terrigal NSW – Traffic Impact Assessment.* Prepared by Mark Waugh Pty Ltd (2008);
- *Archaeological Survey for Proposed Rezoning, Kings Road, Terrigal, NSW.* Prepared by Reg Silcox Consulting Archaeologist (1996);
- *Parkside@Terrigal Aboriginal Heritage Assessment.* Prepared by Environmental Resources Management Australia (2010);
- *Parkside@Terrigal Draft Visual Analysis and Impact Assessment.* Prepared by Andrews Neil Architects Planners Landscape + Environment (2010);
- *Bushfire Protection Assessment for the Proposed Rezoning and Residential Subdivision, Kings Avenue, Terrigal.* Prepared by Conacher Travers (2010);
- *Kings Avenue Terrigal Water Cycle Plan.* Prepared by Cardno (NSW) Pty Ltd (2007);
- *Parkside@Terrigal Rezoning Submission.* Prepared by Andrews Neil Architects Planners Landscape + Environment (2005);
- *Parkside@Terrigal Rezoning Report, Kings Avenue Terrigal.* Prepared by Andrews Neil Architects Planners Landscape + Environment (2005);
- *Parkside@Terrigal Statement of Social Impacts.* Prepared by Duo Consulting (2010);
- *Preliminary Stormwater Assessment for Proposed Community Title Residential Development at Kings Avenue, Terrigal.* Prepared by Cahill and Cameron Pty Ltd (2008);
- *Possible Indigenous Scar Tree within the Kings Road, Terrigal Development.* Advanced Treescape Consulting (2008);
- *Parkside@Terrigal DCP 122 ‘Cut and Fill Restrictions’ Compliance Report.* Prepared by Crighton Properties and Peter Andrews and Associates (2008);
- *Water and Sewer Infrastructure Options Report.* Prepared by Cardno (2009);

- *Preliminary Advice Regarding the Proposed Rezoning of Parkside.* Prepared by Cumberland Ecology (2010);
- *Statement of Environmental Effects (SoEE (Rainforest Policy)).* Prepared by ERM (2010);
- *Summary of Development Controls and Community Structure.* Prepared by Crighton Properties (2010).
- *Adequacy of Biodiversity Offsets.* Prepared by Cumberland Ecology (2010).

Table 1.1 outlines the specifications for the LES (dated 4 October 2007) and indicates where they have been addressed within this report.

Table 1.1 **LES Specifications**

Specification Requirements	Where Addressed
1. The rationale and basis for the draft LEP, and the appropriateness of the site compared to other sites.	
Discuss the need for/opportunities present by development of the proposed type.	Section 1.3 Section 3.2 Annex L
Discuss the nature of the project as a “pilot” project and what would be the measures of success by which such a project should be judged.	Section 3.1 Section 6.3 Annex L
Describe how development under the draft LEP will vary from other forms of urban development in the locale and the appropriateness of likely development of the site. The appropriateness of the proposed subdivision of 7(c2) lots below minimum lot size provisions.	Section 1.4 Chapter 5 & 6
Identify issues associated with the proposed development that would help inform site selection, i.e. size, location and natural assets etc.	Chapter 4 & 5
Compare the constraints and opportunities upon the site to other sites that may be available for similar development. Explain why this site is more suited to the draft LEP than other sites considered.	Chapter 5 & 6
2. The implications of the draft LEP for the rezoning of other environmental protection land in the locality.	
Discuss the likely effect this LEP would have on the expectations of the owners of other similar 7(c2) zoned land in the locality. Would such a rezoning set a precedent with regard to other similarly zoned land within the locality. How does the status of the proposal as a “pilot” project act as a precedent?	Section 3.1 Section 3.6

Specification Requirements	Where Addressed
3. Identify environmental features and constraints on the site including but not limited to:	
a. geotechnical and topographical features and constraints	
b. the location or potential habitat of any vulnerable or threatened species or endangered ecological communities, and any relevant draft or adopted Recovery Plans;	
c. Riparian areas and water course;	
d. Vegetation on the site;	
e. Flooding and drainage hazards;	
f. Bushfire risks	
g. Determine appropriate land uses and development controls, as well as management options and any environmental offsets requirements commensurate with the features and constraints on the land; and	
h. Integration of basic physical constraints in mapping layer.	
Detailed description and analysis of the slope, soils and topographical features of the site and its immediate surrounds with particular reference to GCC DCP 163 "Geotechnical Requirements of Development Applications"	Section 2.5.8 Section 4.1 Chapter 5
Identification of slopes, soils and topographical features which might impose constraints to future development or require specialized engineering approaches to address site constraints.	Section 4.1 Section 5.1
Location of land displaying slopes in excess of 20%.	Section 5
Map identifying habitat of:	Section 5
Threatened Species:	Annex C
• Yellow – bellied Glider; • Grey headed flying fox; • Micro bats; • Stephens Banded Snake; • Hollow bearing trees (refuse/breeding habitat)	
Endangered Ecological Communities:	
• Riverflat Forest on Coastal Floodplains; • Lowland Rainforest	
Assessment of the proposal against the approved and draft recovery plans for:	Annex C
• Yellow – bellied Gliders; • Large Forest Owls (Powerful Owl, Masked Owl, Sooty Owl)	
Identification of riparian areas including riparian vegetation surrounding any creek lines, watercourses or aquatic areas.	Section 4.2 Section 4.5 Section 5.1
Identification of potential impacts to riparian areas / vegetation	Section 4.2 Section 4.5
Identification of constraints and long term management requirements for retained riparian areas.	Section 4.5 Section 5.1 Chapter 6 Annex C
Consideration and establishment of necessary required setbacks from water courses and riparian areas.	Section 4.5 Section 5 Chapter 6 Annex C
Consultation with the Department of Natural Resources with regard to setbacks and appropriate management.	Section 4.5 Annex O
Completion of detailed surveys, description and analysis of vegetation present on – site and on the immediate adjoining lands.	Section 4.2 Annex C
Identification of any threatened flora species, endangered ecological vegetation community or locally significant vegetation both on site and on the immediate adjoining lands.	Section 4.2 Annex C

Specification Requirements	Where Addressed
Mapping of trees and vegetation communities at a suitable scale for site planning purposes.	Section 4.2
Identification and analysis of any hollow bearing habitat trees.	Section 4.2 Annex C
Identification of key fauna habitat features, including, but not limited to, aquatic habitats, vegetation habitats, habitat trees and terrestrial habitats.	Section 4.2 Section 5.1 Annex C
Identification of any habitat linkages from or through the site to adjoining bushland areas.	Section 4.2 Section 5.1 Annex C
Assessment of significance of vegetation communities, particularly rainforests.	Section 4.2 Annex C and T
Identification of issues, impacts, possible environmental offsets and biodiversity management requirements resulting from the proposed development and removal/modification of habitat.	Section 4.2 Chapter 6 Annex C and D
Identification of hydrological features / characteristics including drainage lines, floodways, aquatic areas, etc.	Section 4.5 Annex G
Identification of any groundwater seepages or areas of impeded drainage.	Section 4.1 Annex K
Assessment of constraints (hydrological) to future development.	Section 4.5 Annex G
Assessment of impacts on existing water cycle characteristics for both the site and downstream flows / environments.	Section 4.3 Section 4.5 Annex C and G
Assessment and management details for impacts on riparian areas including the watercourses and adjoining riparian land.	Section 4.2 Section 4.5 Annex C
Determination by survey of the 1% AEP line and an assessment of infrastructure requirements necessary to ensure flows from the development of the land or at pre development levels.	Annex G
Undertake an assessment of the proposed development in accordance with the requirements of Planning for Bushfire Protection (RFS 2006).	Section 4.4 Annex I
Identify bushfire hazard of areas of retained vegetation and any specific measures required to implement bushfire hazard reduction measures within these areas or create bushfire asset protection zones external to areas of retained vegetation / habitats.	Section 4.4 Annex I
Prepare a fuel management plan for areas of retained vegetation that area to be managed as an asset protection zone.	Section 4.4 Annex I
Identify areas to be developed / retained within the site and any possible environmental offsets external to the site (e.g. COSS land transfers / purchases).	Section 4.2 Chapter 5 Annex D
Identify management requirements for lands retained within the site (e.g. open space, riparian areas, etc.)	Chapter 6 Annex C
Indicate and explain the system of implementation, to ensure ongoing adherence to relevant controls and management plans such as land tenure, common ownership, commitments and restrictions.	Chapter 6 Annex H
Integration of basic constraints to residential or related development in a mapping layer to identify combined constraints. Mapping layer to contain overlays of: • Location of proposed development of land; • Location of land in excess of 20%; • Location of: • threatened species; • endangered species;	Chapter 5

Specification Requirements	Where Addressed
- vulnerable species; - locally significant species of flora and fauna as well as fauna habitat plus habitat linkages. 1% AEP line pre – development; 1% AEP line post – development (with infrastructure to control flows) - Location of APZ.	
4. Traffic generation and the impact of the draft LEP on local roads.	
Consider and describe the existing performance of the local road network in the vicinity of the site, and following preparation of a traffic model, contrast this with the likely future performance of the road network post development.	Section 4.7 Annex B
Consider the impacts upon and any required mitigation measures for any proposed intersections required to access the site.	Section 4.7 Annex B
Make any recommendations for augmentation of the local road network with regard to road works, public transport infrastructure and traffic management.	Section 4.7 Annex B
Consider the broader effects upon the regional road network that may result from this particular type of proposed development. In particular, consider the likely effects of local employment opportunities upon the traffic network.	Section 4.7 Annex B
5. Relationship and compatibility between the draft LEP and surrounding land.	
Consider the compatibility between likely development under the proposed Draft LEP and all surrounding land both developed and undeveloped.	Section 3.3,3.4
Consider and discuss any impacts upon the amenity of adjoining land owners as a result of likely development of the land.	Section 3.3,3.4 Section 3.6
Consider the impact of occupation of the land and likely impacts on surrounding ecological resources.	Section 4.2
6. The consistency of the draft LEP with Council's long term land use planning strategies, and the impact on population capacities of existing zones	
Consider and discuss the consistency of the draft LEP with: - The Draft Central Coast Regional Strategy - Gosford Vision 2025 - Standard Instrument (Local Environment Plan)	Chapter 2 Annex Q
Consider the impact of likely development of the site in the provision of infrastructure within the site catchment including: - hard infrastructure, such as sewer, water, electricity, communications, drainage etc. - soft infrastructure such as schools, public transport, retails facilities, recreation facilities etc.	Section 3.5 Annex J
7. The effect of any Council DCP, strategy, management plan or policy on the land, and the implications of the draft LEP on Council's policies with respect to the rezoning and development of land with slopes greater than 20%	

Specification Requirements	Where Addressed
Comment on the draft LEP with respect to: • IDO No. 122; • Council's Rainforest Policy; • Councils Landscape and Vegetation Management Policy; • Council's Erosion/Sedimentation Control Policy; • Council's Policy on Rezoning Conservation Land; • Council's Biodiversity Strategy; • Terrigal Lagoon Management Strategy; • Council's DCP No. 89 Scenic Quality; • Council's DCP No. 163 Geotechnical requirements for development applications.	Chapter 2 Annex Q
8. Identify and address compliance with State Planning policies that affect the site, including section 117 directions, SEPP's, the draft Central Coast Regional Strategy etc.	
Relevant SEPPs for consideration include: • SEPP 19 Urban Bushland Management. • SEPP 44 Koala Habitat Assessment	Section 2,1 Annex C and Q
Relevant State Planning documents/guidelines to be considered include: • NSW Biodiversity Strategy; • Floodplain Development Manual/Guidelines; • Coastal Development Strategy; • Planning for Bushfire Protection	Section 2.4 Section 2.5 Annex Q and I
9. Measures to ensure compliance of future development on the site with the objectives of the draft LEP	
Suggest and detail the operation of any measures or mechanisms that will operate to ensure that future development upon the site is in accordance with the objectives of the draft LEP. For example by way of VPA, Section 88 instruments, Common title structures, deeds of agreement etc.	Section 6.5 Annex H
Draft any such instruments and explain the operation insofar as this detail may be useful at the draft LEP stage.	Section 6.5
10. Assessment of the draft LEP against the Sustainability Criteria contained within the draft Central Coast Regional Strategy.	
Assess the draft LEP against the sustainability criteria contained within the draft Central Coast Regional Strategy	Section 2.4.2 Annex Q
11. Consideration of the scale and operation of office – related activities on the site, the catchments they will serve and the impact on other office lands in the locality.	
Consider and detail the need for and likely success of the business related activities on the site. Consider the trend toward home business based business activities and the likely long term effects in the locality.	Section 3.2 Section 3.4
Consider provisions to ensure that such activities remain at a scale and type that preserve the residential amenity of lot owners both within and adjacent to the site.	Chapter 6
Consider the impact upon/opportunities to other existing and future businesses within the locale on zoned business lands.	Section 3.2

The site is located within the Gosford local government area (LGA) on the New South Wales Central Coast. It is situated south of an existing east/west urban corridor connecting the towns of Terrigal and Erina. The site is generally vacant except for one existing dwellings and one approved dwelling, and has an area of approximately 54 hectares with frontage to Kings Avenue. *Table 1.2* provides lot and ownership details of all allotments comprising the site (see *Figure 1.5*).

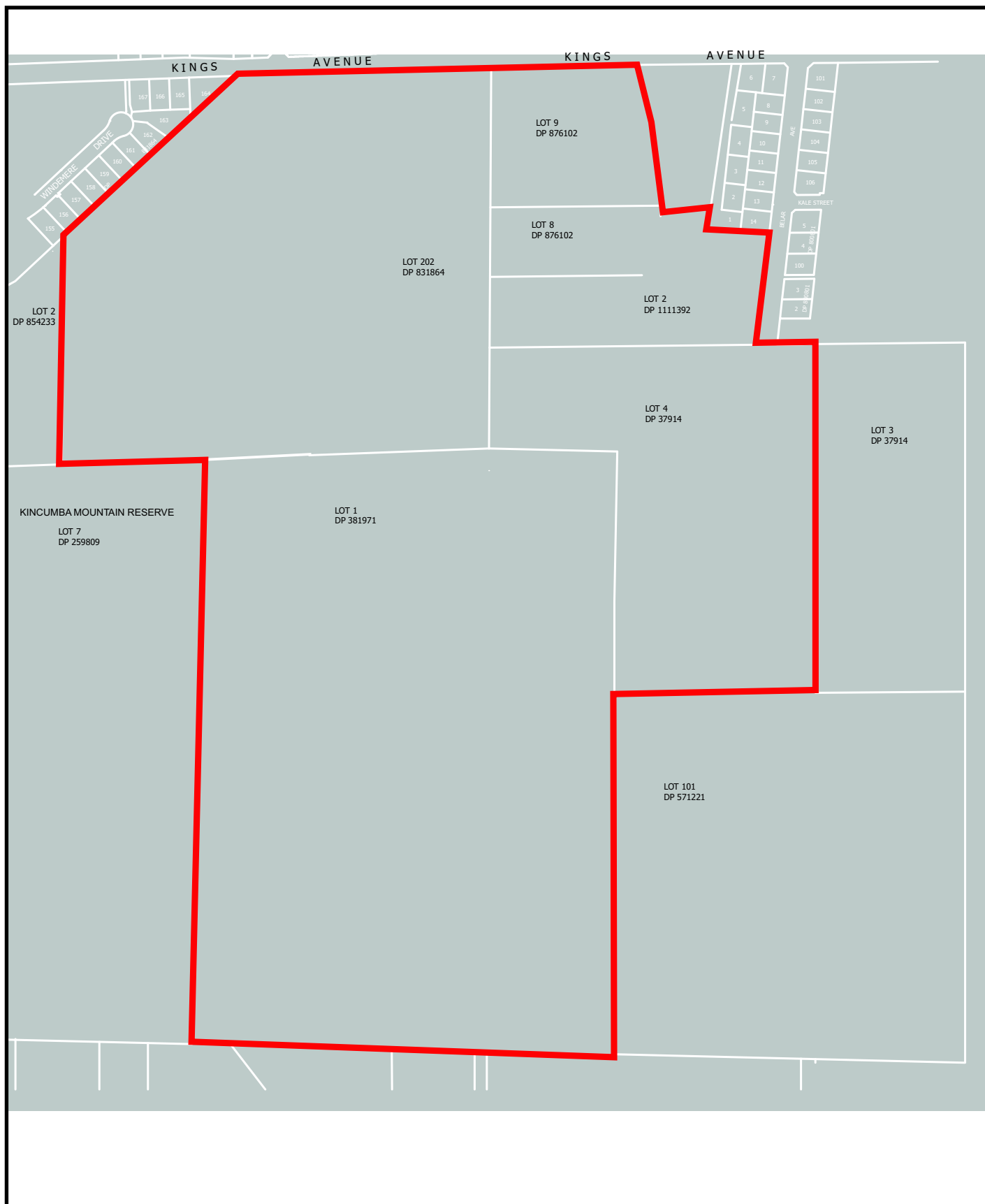
Table 1.2 *Lot and Ownership Details*

Lot	Ownership
Lot 202 DP 831864	Crighton Properties Pty Ltd
Lot 9 DP 876102	John Michael Olzomer and Pamela Ann Olzomer
Lot 8 DP 876102	John Michael Olzomer and Pamela Ann Olzomer
Lot 2 DP 1111382	Abel and Barbara Morrell
Lot 4 DP 37914	Crighton Properties Pty Ltd
Lot 1 DP 381971	Crighton Properties Pty Ltd

The site is sparsely vegetated at the Kings Avenue frontage, with vegetation cover increasing heading south towards the site's frontage to the Kincumba Nature Reserve which forms part of Gosford City Council Coastal Open Space System. A cleared area exists on the north eastern portion of the site (*Photograph 1*). The area also contains an artificial water body and two residential dwellings.

The site is situated in an area of moderate to steeply undulating terrain on the north eastern edge of a prominent south west trending ridgeline (*Photograph 2*). The elevation of the site varies between 20m AHD at the Kings Avenue frontage up to 70m AHD at the southern portion of the site which forms part of the previously referenced ridgeline. A cleared electricity easement runs along the top of this ridgeline (*Photograph 3*). Two gullies originate at the upper slopes of the site and drain towards the north.

Along the northern, north west and north east edge of the site is the edge of the extensive Terrigal to Erina urban corridor. This is characterised by detached, single storey, low density residential development (*Photograph 4*). To the east and south east of the site are larger, predominantly cleared, rural residential style allotments containing single dwellings. The western and south western edge of the site adjoins the Kincumba Nature Reserve which is characterized by steep topography and heavy vegetation.



Legend
 Site

Source:
 Crighton Properties Pty Ltd

R0		17-12-10	JD
R1	Preliminary Issue	28-01-11	JD
Suffix	Revisions	Date	Init

Client:	Crighton Properties Pty Ltd		
Project:	Parkside Terrigal Rezoning Report - Local Environmental Study		
Drawing No:	0050265h_LES_Nov10_C013_R1.cdr		
Date:	28/01/2011	Drawing size:	A4
Drawn by:	JD	Reviewed by:	AA
Scale:	Refer to Scale Bar		



0 50 100 150m

Maps and figures contained within this document may be based on third party data, may not be to scale and is intended for use as a guide only. ERM does not warrant the accuracy of any such maps or figures.

Figure 1.5
Cadastral Boundaries

Environmental Resources Management Australia Pty Ltd
 53 Bonville Avenue, Thornton, NSW 2322
 Telephone +61 2 4964 2150





Photograph 1

View from north east corner of the site.



Photograph 2

View eastwards from ridgeline.



Photograph 3

"Electricity Easement".



Photograph 4

Area to be developed for purposes of open space and community facilities.

This LES has been prepared in support of the rezoning proposal lodged by Crighton Properties having regard for the *Specifications for an Environmental Study under s.57 of the Environmental Planning and Assessment Act 1979* as provided by Gosford City Council within correspondence dated 4 October 2007. It has been structured as follows:

- *Chapter 1* provides background information and an outline of the proposed development. It also provides a site description and details background information relevant to the proposed development;
- *Chapter 2* considers the proposed development in relation to relevant legislation and planning policies;
- *Chapter 3* contains an economic and social impact assessment which looks at the opportunities that will be created by the rezoning and the implications that it will have on the economic and social landscape within the immediate locality, the Gosford LGA and the New South Wales economy;
- *Chapter 4* investigates the existing environmental conditions within and adjoining the site, assesses the capacity of the environment to absorb the likely impacts associated with the rezoning and development of the site and provides appropriate mitigation measures to ameliorate potential adverse impacts;
- *Chapter 5* provides a summary of the constraints and opportunities as identified within the earlier chapters and presents a Concept Plan for the development of the proposed hi tech home business estate.
- *Chapter 6* draws conclusions regarding the appropriateness of proceeding with new planning controls, as well as providing the planning principles or criteria by which the proposed development can be measured to ascertain whether it achieves its goals.

A number of specialist technical reports in support of the proposed rezoning are contained in annexures at the rear of this LES. Other relevant documentation is also provided in the annexures.

2 PLANNING CONTEXT

2.1 STATE PLANNING

2.1.1 *Environmental Planning and Assessment Act 1979*

The relevant State planning legislation for NSW is the *Environmental Planning and Assessment Act 1979* (EP&A Act 1979). The EP&A Act is supplemented by a suite of Environmental Planning Instruments (EPI's), namely State Environmental Planning Policies (SEPP's), Regional Environmental Plans (REP's) and Local Environmental Plans (LEP's). The EPI's that are potentially relevant to the proposed rezoning include:

- State Environmental Planning Policy (Exempt and Complying Development Codes) – 2008;
- State Environmental Planning Policy (Infrastructure) - 2007;
- State Environmental Planning Policy 19 – Bushland in Urban Areas (SEPP 19);
- State Environmental Planning Policy 44 – Koala Habitat Protection (SEPP 14);
- State Environmental Planning Policy 55 – Remediation of Land (SEPP 55);
- State Environmental Planning Policy 71 – Coastal Protection (SEPP 71);
- Sydney Regional Environmental Plan 6 – Gosford Coastal Areas;
- Central Coast Regional Strategy; and
- Draft Gosford Local Environmental Plan 2009.

2.1.2 *State Environmental Planning Policy (Exempt and Complying Development Codes) 2008*

Part 2 of State Environmental Planning Policy (Exempt and Complying Development Codes) 2008 (Codes SEPP) specifies a number of development types as having minor environmental impact that may be carried out as exempt development not requiring approval under the NSW planning system.

Home businesses are specified as being exempt development under the Codes SEPP. The Standard Instrument provides the following definition of home businesses referred to in the Codes SEPP.

'Home business means a business carried on in a dwelling, or in a building ancillary to a dwelling, by one or more permanent residents of the dwelling that does not involve:

- (a) the employment of more than 2 persons other than those residents, or*
- (b) interference with the amenity of the neighbourhood by reason of the emission of noise, vibration, smell, fumes, smoke, vapour, steam, soot, ash, dust, waste water, waste products, grit or oil, traffic generation or otherwise, or*
- (c) involve the exposure to view, from any adjacent premises or from any public place, of any unsightly matter, or*
- (d) the exhibition of any notice, advertisement or sign (other than a notice, advertisement or sign exhibited on that dwelling to indicate the name of the resident and the business carried on in the dwelling), or*
- (e) the sale of items (whether goods or materials), or the exposure or offer for sale of items, by retail, except for goods produced at the dwelling or building, or*
- (f) the use of more than [insert number] square metres of floor area to carry on the business, but does not include bed and breakfast accommodation, home occupation (sex services) or sex services premises.*

The Codes SEPP and the definition of home businesses within the Standard Instrument provide for local councils to adopt maximum floor areas for home businesses within their LEPs which are exempt under the provisions of the Codes SEPP. Clause 5.4 of the Standard Instrument adopts a minimum floor area of 30m². Councils are unable to set maximum floor areas for home businesses less than this. The draft GLEP 2009 has adopted 30m² as the maximum floor area in which home businesses are permitted to be carried out within the Gosford LGA as exempt development under the provisions of the Codes SEPP.

The proposed "hi tech" home business estate is consistent with the definition of home business in the Standard Instrument (and draft GLEP 2009) and is therefore considered to be exempt development. However, a modification to draft GLEP 2009 is sought to facilitate home business development up to 60m² within the site (refer to Section 2.3.3).

2.1.3

State Environmental Planning Policy (Infrastructure) 2007

Schedule 3 of *State Environmental Planning Policy (Infrastructure) – 2007* (SEPP – Infrastructure) provides a referral mechanism whereby a consent authority is required to ensure that any development applications referred to within the Schedule are forwarded to the Roads and Traffic Authority (RTA) to ensure that it is made aware of, and given an opportunity to comment on the development. This is not an integrated development referral as described within Section 91 of the EP&A Act 1979. Clause 104(3) of SEPP Infrastructure states:

“(3) Before determining a development application for development to which this clause applies, the consent authority must:

- (a) give written notice of the application to the RTA within 7 days after the application is made, and*
- (b) take into consideration:*
 - (i) any submission that the RTA provides in response to that notice within 21 days after the notice was given (unless, before the 21 days have passed, the RTA advises that it will not be making a submission), and*
 - (ii) the accessibility of the site concerned, including:*
 - (A) the efficiency of movement of people and freight to and from the site and the extent of multi-purpose trips, and*
 - (B) the potential to minimise the need for travel by car and to maximise movement of freight in containers or bulk freight by rail, and*
 - (iii) any potential traffic safety, road congestion or parking implications of the development.”*

In the case of subdivision of land, referral to the RTA is required at development application stage where the subdivision would result in the creation of:

- 200 or more allotments where the subdivision includes the opening of a public road; or
- 50 or more allotments where the site is accessed from a classified road or to a road that connects to a classified road, if access is within 90m of connection, measured along the alignment of the connecting road.

As the proposed development that would arise from the rezoning is not classified under Schedule 3, referral to the RTA under Clause 104(3) is not required.

As the subdivision that would result from successful rezoning of the site would create less than 200 allotments, and given that Kings Avenue is not defined as a “Classified Road” by the Roads Act 1993, referral of a development that may arise as a result of this rezoning is not required.

The SEPP does not contain any heads of consideration to be taken into account when preparing a Draft Local Environmental Plan. Whilst consultation with the RTA may be undertaken as part of the required Section 62 consultation processes, formal referral of any development application is not required. A traffic report was undertaken to investigate the impacts of the development of the site on the local road system and is included as *Annex B*, with a summary provided within *Section 4.7*.

2.1.4

State Environmental Planning Policy 19 – Bushland in Urban Areas

State Environmental Planning Policy 19 – Bushland in Urban Areas (SEPP 19) aims to protect the remnants of plant communities which were characteristic of land now within an urban area, in parcels of a size and configuration which will enable the existing plant and animal communities to survive in the long term. The site adjoins land to which SEPP 19 applies, being land within the Kincumba Nature Reserve which is reserved for open space requirements.

Clause 9(2) applies to land which adjoins zoned or reserved for open space purposes and requires that a public authority shall not grant development consent unless it has taken into account:

- (c) the need to retain any bushland on the land,*
- (d) the effect of the proposed development on bushland zoned or reserved for public open space purposes and, in particular, on the erosion of soils, the siltation of streams and waterways and the spread of weeds and exotic plants within the bushland, and*
- (e) any other matters which, in the opinion of the approving or consent authority, are relevant to the protection and preservation of bushland zoned or reserved for public open space purposes.*

Whilst a development application has not been lodged, a SEPP 19 assessment was carried out as part of the extensive ecological investigations undertaken to support the draft LEP. This is provided as Appendix 6 to *Annex C* of this report and concludes that development of the land in accordance with the concept plan put forward will not compromise the values of the adjoining bushland areas with respect to the aims of SEPP 19. Parkside@Terrigal incorporates the retention of vegetation, including the dedication of approximately 27.28 hectares of land (51% of the site) in the southern portion of the site to Council, which will become part of the Gosford Coastal Open Space System, and an area of rainforest vegetation in the north western portion of the site which is proposed to be rezoned to E2 Environment Conservation, thereby maintaining connectivity with adjoining areas and wildlife corridors. An assessment of the adequacy of the offsets proposed as part of the development is detailed in *Annex D*.

2.1.5

State Environmental Planning Policy 44 – Koala Habitat Protection

State Environmental Planning Policy 44 – Koala Habitat Protection (SEPP 44) encourages the proper conservation and management of areas of 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.

With regards to the preparation of Draft Local Environmental Plans, Clause 16 of SEPP 44 requires:

“Without affecting the power of the Director to give a direction under section 74 (2) (b) of the Environmental Planning and Assessment Act 1979 to a council, the Director will consider giving a direction that sections 57 and 61 of that Act are to apply to a draft local environmental plan (with the consequence that the council must prepare an environmental study of the land to which the draft local environmental plan applies) if, under the draft plan, it is proposed to zone (or rezone) land that is a potential koala habitat or a core koala habitat otherwise than as environment protection.”

An ecological site assessment was carried out as part of the LES investigations to determine the potential impacts to koalas and their habitats as a result of the proposed rezoning (*Annex C*). One Koala food tree species (*Eucalyptus punctata*) as listed within Schedule 2 of the SEPP was detected on site. However, due to its density being less than 15% on the site and the absence of evidence of Koala habitation, the site is not considered to form either “Potential Koala Habitat” or “Core Koala Habitat” as defined by the SEPP.

Given the above, further consideration of SEPP 44 is not required in preparation of any draft LEP.

2.1.6 *State Environmental Planning Policy 55 – Remediation of Land*

Clause 6 of State Environmental Planning Policy 55 – Remediation of Land (SEPP 55) requires Councils to consider the likely contamination of land before it can be rezoned. An LES therefore must investigate the past uses of the land in the consideration of contamination issues.

A Phase 1 Environmental Site Assessment (ESA) was carried out (ERM 2008). This report concluded that as there was no identifiable significant potential for site contamination arising from past usage, the site is suitable for the proposed development. This report is provided within *Annex E*, with a full summary provided within *Section 4.9*.

2.1.7 *State Environmental Planning Policy 71 – Coastal Protection*

State Environmental Planning Policy 71 – Coastal Protection (SEPP 71) has aims specifically relating to the protection and enhancement of the coastal environment to ensure that the type, bulk, scale and size of development within the coastal zone is appropriate for the location and protects and improves the natural scenic qualities of the surrounding environment.

The site is wholly outside the metropolitan coastal zone, therefore further consideration of SEPP 71 is not required. Notwithstanding this *Annex Q* contains details of the consistency of the proposed rezoning with the objectives and criteria listed in SEPP 71.

2.2 REGIONAL PLANNING

2.2.1 *Sydney Regional Environmental Plan 6 – Gosford Coastal Areas*

Sydney Regional Environmental Plan – Gosford Coastal Areas (SREP 6) provided for the implementation of a number of land use planning strategies developed to encourage urban consolidation of the urban areas within the Gosford LGA. This included the Gosford – Wyong Structure Plan 1977. SREP 6 has been recognised as largely being superseded by the Central Coast Regional Strategy (see Section 2.4.3) and given the recent amendments to the *Environmental Planning and Assessment Act 1979* is to be repealed upon gazettal of Gosford Local Environmental Plan 2009.

2.2.2 *Central Coast Regional Strategy*

This regional planning strategy is discussed in detail in Section 2.4.2 (also refer to Annex Q).

2.3 LOCAL PLANNING INSTRUMENTS

Interim Development Order No 122 (IDO No. 122) and Gosford Planning Scheme Ordinance (GPSO) are the prevailing local planning instruments within the Gosford LGA. However on the advice of Council, the Local Environmental Study has been prepared reflecting the future planning framework being draft GLEP 2009. It is understood that draft GLEP 2009 is expected to be finalised mid 2011. The proposal has therefore not been assessed against IDO No. 122 and GPSO.

2.3.1 *Draft Gosford Local Environmental Plan 2009*

Draft Gosford Local Environmental Plan 2009 is still in draft form but is proposed by Council to replace the prevailing local planning instruments controlling the present development and future strategic direction of the site. In accordance with Council's resolution of 6 May 2008, this LES is being prepared to amend the draft GLEP 2009.

The site is currently split into two zones under the provisions of draft GLEP 2009. These are E3 "Environmental Management" and E2 "Environmental Conservation" under the provisions of this plan.

Zoning and Zone Objectives

The objectives of the E2 zone are:

- *to protect, manage and restore areas of high ecological, scientific, cultural or aesthetic values;*
- *to prevent development that could destroy, damage or otherwise have an adverse effect on those values;*
- *to reflect State, Regional and local planning and management strategies relating to areas with high ecological, scientific, cultural or aesthetic value within the statutory planning provisions of the City;*
- *to promote ecological, social and economically sustainable development and the need for and value of biodiversity in the local government area; and*
- *to ensure development is compatible with the desired future character of the areas covered by this zone.*

Any draft LEP should provide for land within the southern portion of the site that is subject to the E2 zoning to be dedicated to Gosford City Council as part of the Coastal Open Space System and rezoned RE1 “Public Recreation” (consistent with the zoning of the existing Coastal Open Space System). This will ensure that the draft LEP is consistent with the zone objectives by virtue of:

- the high value conservation land will be retained within public ownership;
- the high value conservation land will be totally excluded from future development of the site, allowing for the future prohibition of development of the E2 zoned land;
- through the prohibition of development on the high value conservation land, issues such as the retention of visual backdrops and potentially fragile ecosystems are readily addressed;
- dedication of the high value conservation land to the COSS allows for its use for passive recreation purposes, providing a vital link within the system. It will allow residents of Avoca beach to access the Kincumber Mountain Reserve via Picketts Valley Road; and
- prior to dedication of the high value conservation land to Council, Crighton Properties will undertake a bushland regeneration program to ensure that any potential habitat degradation that has occurred on the site due to past land use patterns is rectified within this land. This will ensure that the land is able to function as an important visual and ecological element of the COSS.

The Concept Plan provides for the retention and dedication to Council of 27.28 hectares of land in the southern portion of the site (being 51% of the site). This land will form part of the Coastal Open Space System and will ensure the protection and conservation of the land within public ownership. In addition,

land mapped as rainforest in the north west portion of the site is proposed to be zoned E3 Conservation.

The objectives of the E3 zone are:

- *to protect, manage and restore areas with special ecological, scientific, cultural or aesthetic values.*
- *To provide for a limited range of development that does not have an adverse effect on those values.*
- *To reflect State, Regional and local planning and management strategies relating to areas with special ecological, scientific, cultural or aesthetic value within the statutory planning provisions of the City.*
- *To promote ecological, social and economically sustainable development and the need for and value of biodiversity in the local government area.*
- *To ensure development is compatible with the desired future character of the areas covered by this zone.*
- *To highlight the importance of this zone in providing an environmental buffer to areas of high ecological, scientific, cultural or aesthetic value.*

It is within the area to be zoned E3 under draft LEP 2009 that any draft LEP should seek to provide for the development of a hi – tech home business estate. The area of the proposed hi – tech home business estate is proposed to be rezoned R2. In order to address consistency with the provisions of all aspects of draft GLEP 2009, it will be necessary to assess the following elements:

- consistency of the proposal with the intent of the objectives of the zone;
- identify all land use types proposed within the draft LEP, align these with the definitions provided within draft GLEP 2009, and cross reference them with the permissible, prohibited and exempt development land use types within the E3 zone;
- address any subdivision standards;
- review any other clauses and provisions within draft GLEP 2009 that are relevant to the E3 zone; and
- provide suggestions for the inclusion of clauses within the draft LEP which will provide for appropriate site specific amendments to draft GLEP 2009.

Whilst the rezoning will promote a wider range of uses on the land than that presently envisaged by the zone objectives, the elements of the zone objectives relating to the management and restoration of areas with special ecological, scientific, cultural or aesthetic values, principles of sustainable development, and compatibility with the future character of the area have been met.

The site is surrounded by the urban street network to the north (Windemere Drive, Kings Avenue and Bellar Avenue), with conservation land surrounding the remainder of the site. *Figure 5.2* presents the Concept Plan for the site and shows how the site is able to be developed to maintain a buffer of large, vegetated lots between urban and conservation areas. In some areas (particularly on the western and eastern portions of the site) open space containing substantial areas of riparian vegetation is to be retained, along with all other significant vegetation on site, where the site adjoins other E2 zoned land. The Concept Plan for development of the site has been designed to minimise disturbances to areas of ecological and scientific significance.

A comprehensive visual impact assessment has been undertaken (*Section 4.8*). The Concept Plan for the hi – tech home business estate has been developed having regard to the findings of this assessment, with a view to substantially minimizing any potential visual impacts that may occur as a result of development of the site. Whilst the rezoning will facilitate more intensive development of the site than that envisaged by the zone description and objectives, the visual impact assessment demonstrates that the site can be more intensively developed whilst still retaining its aesthetic qualities.

With regards to the adjoining conservation zoned lands, the buffer areas as discussed previously will ensure that the amenity and future character of the area is preserved.

Definitions and Permissibility

In order to provide for an operationally functional hi – tech home business estate, a number of community facilities are required. In accordance with the Concept Plan the following land use types are proposed:

- residences;
- home business;
- catering facilities;
- coffee shop with lounge;
- library;
- internet kiosk;
- clerical support area including stationary supplies;
- conference rooms;
- gym;
- day care facility;
- swimming pool;
- tennis courts;
- playground;

- BBQ area; and
- outdoor park and recreation area.

Table 2.4 below provides a land use matrix, outlining the land use types proposed, its definition as outlined within GLEP 2009 and an assessment of its permissibility within the E3 zone.

Table 2.1 E3 Zone Land Use Permissibility Matrix

Land Use	Definition as contained within GLEP 2009	Permitted without Consent	Permissible with Consent	Prohibited
Dwelling	Dwelling ¹	No	Yes	No
Home Business	Home Business ²	No	No	Yes ²
	Home Industry	No	Yes	No
	Home Occupation	Yes	No	No
Catering Facilities	Food and drink premises	No	No	Yes
Coffee Shop	Restaurant	No	No	Yes
Library	Information and education facility	No	No	Yes
Conference rooms	Function Centre	No	No	Yes
Internet Kiosk	Kiosk	No	No	Yes
Clerical Support Area and Stationery Supply	Office Premises	No	No	Yes
	Shop	No	No	Yes
Gym	Recreation facility (indoor)	No	No	Yes
Day Care Facility	Child Care Centre ³	No	No	Yes
Swimming Pool	Recreation facility (outdoor)	No	No	Yes
Tennis Court	Recreation facility (outdoor)	No	No	Yes
Playground	Recreation facility (outdoor)	No	No	Yes
BBQ area	Recreation facility (outdoor)	No	No	Yes
Outdoor Park and Recreation Areas	Recreation facility (outdoor)	No	No	Yes

1. Dwellings may be permitted as complying development
2. Home business is exempt development under State Environmental Planning Policy (Exempt and Complying Development Codes) 2008 (Codes SEPP).
3. A child care centre is permissible as a home based child care centre or family day care home as defined by GLEP 2009.

A large number of land use types are required to facilitate the successful development and operation of a hi – tech home business estate that are not permissible within the bounds of the existing zoning of the site. Whilst some land uses may be permissible to a degree as being ancillary to uses which are presently permissible (e.g. a playground as an ancillary use to a home based child care centre which is currently permissible with consent), it is considered that the range of facilities proposed will not be able to be accommodated within the scope of the present E3 zoning. This LES has suggested amendments to draft GLEP 2009 by way of rezoning the area where the business hub is to be located to a Residential zone which would permit many of the land uses contained within the above table.

The proposed “hi tech” home business estate development is consistent with the definition of home business in the Standard Instrument and is therefore considered to be exempt development under the Codes SEPP (refer to *Section 2.1.2*). However, a modification to clause 5.4(2) of draft GLEP 2009 is sought to facilitate home business development up to 60m² within the site.

2.3.2 *Summary of Proposed Changes to draft Gosford Local Environmental Plan 2009*

The key outcomes of the above assessment, having regard to the proposed development of the site for the purposes of a hi – tech home business estate is that there are inconsistencies with subdivision standards and permissible uses. In order for the site to be developed in the manner proposed, the rezoning needs to provide for an amendment to the GLEP 2009 to allow for:

- appropriate zonings which reflect environmental values and broader usage patterns inherent within the site;
- a wider range of land use types to be permissible in the zone with consent;
- subdivision of land into a range of lots sizes, arranged in a manner that addresses site constraints and opportunities; and
- varying densities of development of the newly created lots.

In this regard, the following amendments to draft GLEP 2009 are sought:

- sensitive environmental areas across the site which are to be dedicated to the Coastal Open Space System are to be rezoned to RE1 “*Public Recreation*”;
- the north west portion of the site containing riparian and rainforest vegetation is to be zoned E2 “*Environment Conservation*”;
- sensitive environmental areas containing riparian vegetation within the site which are to remain in private ownership are to be rezoned to RE2 “*Private Recreation*”.; and
- the residual area of land is to be zoned R2 “*Low Density Residential*”.

A modification to draft GLEP 2009 is also sought to facilitate home business development up to 60m² within the site. The following modification is proposed:

An addition to clause 5.4(2) to add the words "...unless the business is located upon Lot 202 DP 831864, Lots 8 and 9 DP 87601, Lot 2 DP 1111392, Lot 4 DP 37914 and Lot 1 DP 381971 located at Kings Avenue, Terrigal, in which case the business must not use more than 60 square metres of floor area."

Outcomes

The size of the proposed allotments and detached nature of the dwellings is consistent with that of a low density residential nature. This is further enhanced by the retention of substantial areas of vegetation and formal passive outdoor recreation areas.

The proposed business hub, associated commercial premises and outdoor recreation areas/facilities are considered to be compatible with the low density environment and are specifically designed to provide specialist services to residents at a local level. Additionally, as the proposed hi - tech home business estate will not be a gated community, these facilities will be available to all members of the public. An assessment of the proposal's compatibility with the surrounding area has been provided within *Chapter 6* of this LES.

It is considered that rezoning of the business hub area to a general commercial zone would be inappropriate and may possibly lead to higher density and more intrusive commercial development than intended by the rezoning.

Rezoning of the land to R2 "Low Density Residential" will ensure that the site has a similar zoning to adjoining urban areas. The zone objectives of the R2 zone are:

- *to provide for the housing needs of the community within a low density residential environment.*
- *to enable other land uses that provide facilities or services to meet the day to day needs of residents.*
- *to reflect State, Regional and local planning and management strategies relating to low density residential development within the statutory planning provisions of the City.*
- *to ensure development is compatible with the desired future character of the areas covered by this zone.*
- *to encourage best practice in the design of low density residential development.*
- *to promote ecological, social and economically sustainable development and the need for and value of biodiversity in the local government area.*

- *to ensure that no residential land uses do not adversely affect residential amenity or place demands on services beyond the level reasonably required for low density housing or should be encouraged to be located in commercial centres so as to provide benefits to other uses in the centre and the centre itself.*

The proposal is consistent with these zone objectives as:

- requirements for the establishment of home business are being provided within a low density environment;
- the low density nature of the proposed hi – tech home business estate is consistent with that of surrounding residential development;
- best practice design methods have been utilised within the development of the concept plan; and
- the Concept Plan has been developed taking into account the principles of ecologically, socially and economically sustainable development.

The rezoning would also rectify issues associated with subdivision standards and floor space ratios, with a minimum lot size of 550m² and maximum floor space ratio of 0.5:1 applicable to the R2 zone.

2.4 MINISTERIAL DIRECTIONS AND STRATEGIC DOCUMENTS

2.4.1 *Environmental Planning and Assessment Act – Section 117 Directions*

Section 117 of the *Environmental Planning and Assessment Act 1979* provides the Minister the ability to direct Councils in the process of preparing LEP's to incorporate provisions which will achieve or give effect to such principles or aims, objectives or policies, not inconsistent with the Act, as are specified in the direction. A new suite of Local Planning Directions issued under section 117 of the Act were gazetted on 14 June 2007 and came into effect on 19 July 2007. A draft LEP is generally required to be consistent with the provisions of all applicable 117 directions in order to proceed to the final plan making process, with inconsistencies only being considered if they can be justified. The Director – General of the Department of Planning can agree to inconsistent provisions within a LEP if they are:

(a) justified by a strategy which :

(i) gives consideration to the objective of this direction;

(ii) identifies the land which is the subject of the draft LEP (if the draft LEP relates to a particular site or sites), and

(iii) is approved by the Director General of the Department of Planning, or

(b) justified by an environmental study (prepared in accordance with section 57 of the Environmental Planning and Assessment Act 1979) which gives consideration to the objective of the direction, or

(c) in accordance with the relevant Regional Strategy or Sub – Regional Strategy prepared by the Department of Planning which gives consideration to the objective of the direction, or

(d) of minor significance.

Relevant Ministerial Directions for the proposed rezoning of the site are summarised in the following pages.

1.1 - Business and Industrial Zones

This direction applies when a draft LEP is prepared that affects land within an existing or proposed business or industrial zone, including the alteration of any existing business or industrial zone boundary.

Whilst any draft LEP will include provisions for the development of home business opportunities, there are no business zones being created or altered. Therefore further consideration with 117 Direction Number 1.1 is not considered necessary.

1.2 – Rural Zones

This direction applies when a draft LEP is prepared that affects land within an existing or proposed rural zone (including the alteration of any existing rural zone boundary).

The current zoning of the site is not rural, nor is it proposed to rezone it to rural, however it is recognised that rural residential sized allotments can be created in certain circumstances under the E3 zone. As there is no impact on good quality rural land, further consideration of Direction Number 1.2 is not considered necessary.

2.1 – Environmental Protection Zones

The objective of the 2.1 Environmental Protection Zones Ministerial Direction is ‘to protect and conserve environmentally sensitive areas’.

This direction applies to any draft LEP and provides for the following:

- a draft LEP shall include provisions that facilitate the protection and conservation of environmentally sensitive areas; and

- a draft LEP that applies to land within an existing environmental protection zone or land otherwise identified for environmental protection purposes in a LEP shall not reduce the environmental protection standards that apply to the land (including by modifying any development standards or subdivision controls that apply to the land).

Clause 6 of the direction allows a draft LEP to be inconsistent with the direction where it is justified by an environmental study prepared in accordance with section 57 of the Environmental Planning and Assessment Act 1979 which gives consideration to the objective of this direction.

This LES has been prepared in order to provide justification for the inconsistency with the direction. Elements of the LES which pertain to this particular direction and justification for the inconsistency with the direction are:

- *Section 4.2* which addresses the impacts of the proposal on the flora and fauna of the site. The results of the ecological assessment were:
 - due to a history of disturbance, the majority of the site is of reduced quality for locally occurring flora and fauna species;
 - habitat for ten threatened fauna species observed on the site is proposed to be retained on the site and in adjoining reserve areas;
 - one Endangered Ecological Community, Lowland Rainforest, is present on the site and no threatened flora species or endangered populations were observed. The rainforest is proposed to be conserved through a E2 zone;
 - the proposal provides for the retention, protection and restoration of higher quality habitats within riparian areas to offset and minimise impacts upon locally occurring flora and fauna; and
 - a detailed Ecological Site Management Plan will be prepared and accompany any proposal for development of the site to detail management requirements for retained vegetation and fauna habitats.

The assessment concluded that the proposal will result in an improvement or maintenance of biodiversity values as a result of the various biodiversity conservation proposals to be implemented as part of the rezoning proposal (these are provided as appendices within *Annex C* to this LES) and that the proposed development is unlikely to have a significant effect upon threatened species.

- *Section 4.8* which addresses potential visual impacts associated with the development of the site. The visual impact assessment concluded:

- the ridgeline is the most visible aspect of the site when viewed from the surrounding areas. The retention of canopy trees on the ridgeline will reduce the visual impact of any clearing undertaken;
- the provision for larger lots on the southern and south eastern boundaries will provide a transition between the more densely developed valley near Kings Avenue and the adjoining rural residential and bushland areas;
- a vegetation buffer to the north west boundary, the retention of appropriate vegetation in the two gullies and retention of views along the gullies from Kings Avenue will retain current amenity and privacy for existing residents; and
- the design of dwellings and landscaping should ensure contribution to the amenity of the streetscape (including screening of fencing, low open style fencing on site boundaries in the north east and consideration of roof colours).

The implementation of the funding and recommendations of the visual impact assessment will ensure visual amenity and character of the locality is maintained and improved.

- *Section 1.4* where it is noted that a large area (27.28 hectares) of the site (51% of the site) which could be considered environmentally sensitive land is to be dedicated to Council and will become part of the Coastal Open Space System. This dedication will enhance the achievement of objectives of the environmental protection zoning.

2.2 – Coastal Protection

This direction applies to any draft LEP within the coastal zone and provides that a draft LEP shall include provisions that give effect to and are consistent with:

- the NSW Coastal Policy: A Sustainable Future for the New South Wales Coast 1997, and
- the Coastal Design Guidelines 2003, and
- the manual relating to the management of the coastline for the purposes of section 733 of the Local Government Act 1993 (the NSW Coastline Management Manual 1990).

An assessment of the consistency of the rezoning with the provisions of the above policies and guidelines has been undertaken within *Sections 2.4.5, 2.4.6 and 2.4.7* (also see *Annex Q*).

2.3 – Heritage Conservation

This direction applies to any draft LEP and requires that a draft LEP contain provisions that facilitate the conservation of:

- Items, places, buildings, works, relics, moveable objects or precincts of environmental heritage significance to an area, in relation to the historical, scientific, cultural, social, archaeological, architectural, natural or aesthetic value of the item, area, object or place, identified in a study of the environmental heritage of the area.
- Aboriginal objects or Aboriginal places that are protected under the National Parks and Wildlife Act 1974, and
- Aboriginal areas, Aboriginal objects, Aboriginal places or landscapes identified by an Aboriginal heritage survey prepared by or on behalf of an Aboriginal Land Council, Aboriginal body or public authority and provided to the council, which identifies the area, object, place or landscape as being of heritage significance to Aboriginal culture and people.

A search of the State Heritage Register revealed that there are no items of World, National, State or Local heritage significance on, or in the vicinity of the site that would be affected by the rezoning. The Aboriginal Cultural Heritage Significance Assessment undertaken as part of the LES (*Section 4.6.1* and *Annex F*) indicated that the archaeological sites noted during the survey can be protected if development proceeds in the manner indicated in the Concept Plan. It is therefore considered that further consideration of this direction is not required.

3.1 – Residential Zones

This direction applies to any draft LEP that affects land within:

- an existing or proposed residential zone (including alteration of any existing residential zone boundary); and
- any other zone in which significant residential development is permitted or proposed to be permitted.

Clause 4 requires that a draft LEP shall include provisions that encourage the provision of housing that will:

- a) broaden the choice of building types and locations available in the housing market;*
- b) make more efficient use of existing infrastructure and services;*

- c) *reduce the consumption of land for housing and associated development on the urban fringe; and*
- d) *be of good urban design.*

Clause 5 provides that the draft LEP is also to:

- a) *contain a requirement that residential development is not permitted until land is adequately serviced (or arrangements satisfactory to the council, or other appropriate authority, have been made to service it); and*
- b) *not contain provisions which will reduce the permissible residential density of the land.*

The rezoning is seeking to facilitate the creation of a unique hi – tech home business estate. The community title arrangements proposed as part of the rezoning will mean that only those wishing to establish a home business and utilise the community facilities are likely to reside within the estate. A completely new type of housing stock will therefore be constructed. This uniqueness adds considerably to the type of housing stock available and therefore the rezoning is consistent with the requirements of the direction.

The water cycle management plan (*Annex G*) provides an assessment of the capacity of existing infrastructure to adequately service the proposal. It concludes the subject to some minor augmentation works, the existing infrastructure has the capacity to adequately service all elements of the proposed hi – tech home business estate without placing undue strain on Council’s capacity to provide services elsewhere in the surrounding area.

Presently the provisions of clause 18(3)(e) of the IDO No. 122 provide for a maximum dwelling yield of 0.5/hectare, with the subdivision standard for the 7(c2) zone being two hectare minimum lot size. The rezoning will significantly increase the dwelling yield from the site. This increase in density is a result of seeking a balance between the need to provide for higher densities and increased housing stock choice, while recognising the environmental constraints of the site.

Whilst detailed designs are yet to be finalised (pending the outcome of this LES), a community management statement which refers to architectural guidelines has been developed for the site (*Annex H*). These have been developed in accordance with what is considered to be “good urban design” principles, utilising document such as the New South Wales Coastal Design Guidelines 2003. These provide for:

- respect of the environment of the site in the design processes and seek to foster ecologically sustainable outcomes;

- the preservation and enhancement of the existing landscape; and
- the maintenance of the highest possible aesthetic standards to assist in establishing Parkside@Terrigal as a desirable place to live and work.

The rezoning is considered to be consistent with all elements of this direction, as well as the New South Wales Coastal Design Guidelines 2003 as demonstrated in *Section 2.4.6* (also see *Annex Q*).

3.3 – Home Occupations

This direction applies to any draft LEP and requires that it permit home occupations to be carried out in dwelling houses without the need for development consent. The intent of the rezoning is to provide for the future creation of a hi – tech home business estate, catering specifically for the establishment and support of home businesses.

Exempt development requirements within the rezoning provide site specific provisions which supplement the existing exemptions for the development of home occupations as contained within the GLEP 2009. Development under Community Title will ensure that no house will be built that does not include a home business with a floor area of between 30 and 60 square metres with a separate access and additional off street parking.

The rezoning is therefore considered to be consistent with this direction.

3.4 – Integrating Land Use and Transport

This applies to any draft LEP that creates, alters or removes a zone or provision relating to urban land, including land zoned for residential, business, industrial, village or tourist purposes. It requires that the draft LEP locate zones for urban purposes and include provisions that give effect to and are consistent with the aims, objectives and principles of:

- Improving Transport Choice – Guidelines for planning and development (DUAP 2001); and
- The Right Place for Business and Services – Planning Policy (DUAP 2001)

Critical objectives of these documents include:

- reducing the growth in vehicle kilometres travel;
- improving air quality and reducing greenhouse gas emissions;

- building more compact cities;
- promoting economic development and creating jobs; and
- focusing on maximizing accessibility (the ability to undertake a range of daily activities with a minimum of travel), rather than mobility (the ability to move freely).

The concept of a hi – tech home business estate will achieve these critical objectives through providing a centralized place of business and residence within the existing urban mosaic.

A traffic impact assessment was undertaken (*Annex B*), with a summary of the outcomes being provided within *Section 4.7*.

4.1 – Acid Sulfate Soils

This direction applies to a draft LEP that will apply to land having a probability of containing acid sulphate soils as shown on the Acid Sulfate Soils Planning Maps. As the Acid Sulfate Soils Planning Maps for the area show that there is no Actual or Potential Acid Sulfate Soils on the site, further consideration of this direction is not considered necessary.

4.2 – Mine Subsidence and Unstable Land

This direction applies to a draft LEP that permits development on land that:

- is within a mine subsidence district, or
- has been identified as unstable in a study, strategy or other assessment undertaken:
 - by or on behalf of the council, or
 - by or on behalf of a public authority and provided to the council.

As the site is not within a mine subsidence district, or identified as unstable or land restricted by steep slopes, further consideration of this direction is not considered necessary.

4.3 – Flood Prone Land

This direction applies to a draft LEP that creates, removes or alters a zone or a provision that affects flood prone land. There is land directly to the east that is proposed under GLEP 2009 to be zoned RE1 “Public Recreation” that contains flood prone land, however, the rezoning does not propose to change the boundary of this zone, nor does it change any provisions within existing planning instruments that relate to development of flood prone land. Further consideration of this direction is therefore not considered necessary.

4.4 – Planning for Bushfire Protection

This direction applies to a draft LEP that affects, or is in proximity to land mapped as bushfire prone land. This requires the following:

- in the preparation of the draft LEP a Council shall consult with the Commissioner of the NSW Rural Fire Service under section 62 of the EP&A Act 1979 and take into account any comments so made; and
- the draft LEP shall
 - have regard to Planning for Bushfire Protection 2006;
 - introduce controls that avoid planning inappropriate developments in hazardous areas; and
 - ensure that bushfire hazard reduction is not prohibited within the APZ.

Section 4.4 summarizes the findings of a comprehensive bushfire risk assessment (*Annex I*) and that has been undertaken accordance with Planning for Bushfire Protection 2006. A number of recommendations have been incorporated in the concept plan. It is considered that the relevant provisions of this direction have been adequately addressed by the rezoning.

5.1 – Implementation of Regional Strategies

This direction applies to land to which the following regional strategies apply:

- Far North Coast Regional Strategy;
- Lower Hunter Regional Strategy;
- Illawarra Regional Strategy;
- South Coast Regional Strategy; and
- Central Coast Regional Strategy

The site is affected by the Central Coast Regional Strategy. As assessment of the proposal's consistency with the provisions of this strategy has been undertaken and is provided within *Section 2.4.2* and *Annex Q*.

Whilst the site is not included within any key residential and employment land release maps, the ability of the proposal to contribute to the attainment of social, environmental and economic goals, whilst demonstrating a high degree of consistency with objectives relating to the strategic development of the area demonstrates that the overall goals of the CCRS are being met.

5.7 – Central Coast

This direction applies to Gosford and Wyong Councils and requires that a draft LEP be consistent with the Gosford – Wyong Structure Plan (as approved by the Minister in November 1977) except as amended by the Sydney Regional Environmental Plan No 6 – Gosford Coastal Areas.

The Gosford Wyong Structure Plan has been superseded by the Central Coast Regional Strategy (see *Section 2.4.2.*)

6.1 – Approval and Referral Requirements

This direction is aimed at ensuring that LEP provisions encourage the efficient and appropriate assessment of development by minimising the inclusion of provisions that require the concurrence, consultation or referral of development applications to a Minister or public authority. No such concurrence, consultation or referral requirements are proposed.

6.3 – Site Specific Provisions

This direction aims to discourage unnecessarily restrictive site planning controls. A draft LEP that amends another environmental planning instrument in order to allow a particular development proposal to be carried out shall either:

- allow that land use to be carried out in the zone the land is situated on;
- rezone the site to an existing zone already applying in the environmental planning instrument that allows that land use without imposing any development standards or requirements in addition to those already contained in that zone;
- allow that land use on the relevant land without imposing any development standards or requirements in addition to those already contained in the principal environmental planning instrument being amended; and
- the draft LEP shall not contain or refer to drawings that show details of the development proposal.

The option of preparing the draft LEP without any reliance on a site specific amendment (usually known as a notwithstanding clause) is the option being pursued (except for the small amendment to clause 5.4(2) of draft GLEP2009). Pursuing this option means that there is general consistency with this directive.

Introduction

The Central Coast Strategy (CCS) was released in draft form for public comment by the Department of Planning in September 2006 and formally adopted on 26 June 2008. The CCRS aims to provide a regionally based, state directed, approach to the development of a 25 year land use blueprint for the Central Coast area. It aims to create prosperous, liveable and vibrant communities supported by a range of living and employment opportunities which contribute to a competitive and adaptable local economy. A number of challenges are identified in the strategy, including the provision of adequate infrastructure and services to accommodate a growing population, the need to minimise impacts on the ecological and biodiversity values of the local environment, careful consideration of the growth of urban areas within the region and the generation of the economic and employment activity needed to provide for the projected population growth. The CCRS raises a number of matters for consideration, primarily the attainment of objectives and targets relating to the development of housing and employment stock, as well as key sustainability criteria.

Whilst the site is not included within any key residential and employment land release maps, the ability of the proposal to contribute to the attainment of social, environmental and economic goals, whilst demonstrating a high degree of consistency with objectives relating to the strategic development of the area demonstrates that the overall goals of the CCRS are being met as detailed herein.

Centres and Housing

Chapter 4 of the CCRS identifies that by 2031 an additional 16,500 people will settle within the Gosford LGA. In providing housing for these people, 36% of new dwellings will be located within the Gosford regional city, 52% within town centres, villages and neighbourhoods, and the remaining 12% as infill development. Whilst the site is not considered to fall within a centre (being outside of the centre definition as contained within the CCRS) it is considered that the proposed hi-tech home business park estate will aid in meeting the 52% target for additional housing stock located in town centres, village and neighbourhoods due to its location adjoining the existing urban mosaic of Terrigal.

A number of key actions have been identified, an assessment of the consistency of the rezoning against the relevant actions has been undertaken and is provided within *Annex Q*.

Economy and Employment

The CCRS identifies that the proportion of the adult workforce commuting out of the Region for work has increased to over 25 percent. The creation of local job opportunities, including an increase in employment self containment to reduce the need for out-commuting, are key challenges identified in the CCRS for the Region. Chapter 5 of the CCRS provides for mechanisms to provide for an additional 18,000 jobs within the Gosford LGA. Strong focus is placed upon decreasing the amount of out-commuting that is currently occurring, and implementing a strategy that is flexible and able to adapt to the constantly changing nature of the workforce and the types of work it undertakes. This is reflected in the stated desired outcomes of the Chapter which include:

- local planning which responds to the dynamics of economic change ensuring that there are sufficient strategic sites and employment lands to meet industry demand and to attract new investment;
- well managed commuting strategies, e.g. a relative increase in employment self containment may still result in an increase of commuter travel over current levels;
- improved connections between regions – stronger links to Sydney may spur new employment opportunities in the region as it will induce additional investment; and
- improved monitoring and consistency of data across the region – to allow job creation and investment strategies to be continually updated to respond to changing business environments and requirements.

In providing additional employment places, 33% of new jobs will be located within the Gosford regional city, 50% within town centres, villages and neighbourhoods, and the remaining 17% within designated employment lands. Whilst the site is not considered to fall within a centre (being outside of the centre definition as contained within the CCRS) it is considered that the proposed hi-tech home business park estate will aid in meeting the 50% target for additional employment numbers located in town centres, village and neighbourhoods due to its location adjoining the existing urban mosaic of Terrigal. A number of key actions have been developed, an assessment of the consistency of the rezoning against the relevant actions is provided within *Annex Q*.

Environment, Heritage, Recreation and Natural Resources

The CCRS recognises the environmental, heritage and recreational value of the region. An ecological assessment (refer to *Section 4.2*) provides details on the vegetation, fauna and habitat present on the site in relation of the local area, as well as providing details on the likely impacts of the proposal upon threatened species, vegetation and habitats within the local area. The

proposed rezoning and subsequent development will not directly impact upon any areas of the known archaeological record (refer to *Section 4.6*).

A number of key actions have been developed, an assessment of the consistency of the rezoning against the relevant actions is provided within *Annex Q*.

Natural Hazards

The CCRS recognises that some areas may be subject to the effects of natural hazards such as flooding, coastal inundation and recession. Due to the separation of the site from the coastal foreshore, it is unlikely to be subject to, or contribute to any adverse impacts arising from coastal processes and hazards. An assessment of the proposals consistency with the objectives of Planning for Bushfire Protection was undertaken (refer to Table 4.3).

A number of key actions have been developed, an assessment of the consistency of the rezoning against the relevant actions is provided within *Annex Q*.

Water

Under the CCRS, Gosford Council is required to continue to incorporate appropriate water efficiency initiatives into planning strategies and development control.

The future development of the site will incorporate a comprehensive water cycle management plan which identifies strategies such as wastewater effluent recycling, stormwater collection and reuse and the implementation of water quality measures to treat stormwater runoff. The construction of the future dwellings will be undertaken in a manner that exceeds the requirements set out within State Environmental Planning Policy – BASIX. This will significantly lessen the energy and water requirements when compared to a standard residential housing estate.

A number of key actions have been developed, an assessment of the consistency of the rezoning against the relevant actions is provided within *Annex Q*.

Regional Infrastructure

The CCRS identifies that a range of public and private infrastructure will be required to service new employment and residential areas as well as existing areas subject to ongoing growth and redevelopment. It identifies that long term planning for infrastructure, including water supply, road and rail transport is critical.

The existing water supply reticulation adjacent to the site should be able to accommodate the proposed development of the site, without the need for any major upgrade of the local water supply system.

Energy Australia has put in place a \$405 million five year plan (2007-2012) to maintain and improve the performance of the electricity supply network within the Central Coast region. This substantial investment will ensure that growth areas are able to be provided with a reliable supply of electricity.

A number of key actions have been developed, an assessment of the consistency of the rezoning against the relevant actions is provided within *Annex Q*.

Regional Transport

The CCRS identifies that connecting centres to destinations such as recreation areas, schools and residential areas are vital to making centres and surrounding areas attractive places to live, work and invest.

The traffic impact assessment (refer to *Section 4.7*) concluded that the additional traffic generated by the development can be accommodated on the local road network and the local roads will remain within their road capacity limits. Additionally, two bus routes pass directly past the site, providing transport links to Erina, Terrigal, Gosford and to the rest of the greater metropolitan area. The primary identified impact on the bus routes assessed will be to provide additional patronage to a key bus corridor thus enhancing viability.

The concept plan that has been prepared provides pedestrian and cycling links through the site and into the COSS, significantly augmenting current access to the reserves for the local community.

A number of key actions have been developed, an assessment of the consistency of the rezoning against the relevant actions is provided within *Annex Q*.

Sustainability Criteria

Section 117 Directive 5.1 – *Implementation of Regional Strategies* requires that a draft LEP be consistent with the relevant Regional Strategy. This includes the consistency of the location of the site with respect to the agreed growth areas as contained within the Strategy. An assessment of the rezoning against the sustainability criteria contained within the CCRS has been included within *Annex Q*. In summary, the assessment against the Sustainability Criteria concluded:

- whilst infrastructure plans under the Gosford Regional City by Cities document (as specified in the State Infrastructure Strategy) are yet to be developed, the services proposed for the site and documented in specialist reports in the annexures, demonstrate that any development of the land arising from the rezoning is able to be adequately serviced without major augmentation to the existing infrastructure;
- the proposal has the potential to have a positive impact on the regional road network given the high likelihood of reduced travel times. Local traffic generation is expected to be similar to a traditional housing estate. The site is in close proximity to the Terrigal CBD and Erina Fair. Overall the proposal is anticipated to have a net positive impact on the subregional road network and likewise the rail, bus and ferry networks should not be negatively impacted;
- the rezoning facilitates the development of the site for the purposes of a hi – tech home business park. This is a completely new form of housing stock, adding to the housing diversity within the LGA;
- the overall increased choice and number of employment opportunities likely to arise from the proposal will limit the amount of commuters who reside in the area yet work in the adjoining larger metropolitan areas of Sydney and Newcastle;
- the employment assessment estimates that the hi – tech home business park will create a direct total of 220 full time equivalent (FTE) jobs, a further 220 national FTE jobs, as well as 1,105 FTE jobs during the construction phase. This provides a significant contribution to the attainment of the subregional employment capacity targets;
- development arising from the rezoning is capable of fully complying with the provisions of Planning for Bushfire Protection 2006;
- residential development on the site is not proposed in areas subject to inundation during a 1 in 100 year flood;
- dedication of large areas of the site to Council for inclusion in Council's COSS acts to provide a buffer to adjoining rural residential land uses. The relatively low key nature of the small home based businesses and the associated business hub is considered a compatible land use type;
- a site analysis and an investigation of potential constraints and impacts arising from development of the site has indicated that a large lot, low impact home business estate is a suitable land use. Areas of potentially physically constrained land will not be developed. The site is not included within any farmland mapping projects as being significant agricultural land and the site does not contain any known productive resource lands;

- any subsequent development of the site will have regard for the concepts of energy efficient urban design, with any dwellings needing to comply with the provisions of State Environmental Planning Policy (Building Sustainability Index: BASIX) 2004;
- the hi – tech home business estate does not contain land uses that will degrade air quality. Additionally, the provision of jobs within the Gosford LGA will lessen the amount of out commuting that takes place out of the region, thus reducing air quality impacts associated with vehicle usage;
- a water cycle management plan has been prepared which aims to improve the environmental condition for water quality and quantity consistent with community water quality objectives and catchment and stormwater management planning;
- no protected areas of Aboriginal cultural heritage are likely to be significantly impacted on the site;
- with some minor augmentation of existing infrastructure the site can be adequately serviced; and
- the proposed rezoning provides for the retention and restoration of riparian vegetation; retention of areas of endangered ecological communities; retention and protection of areas of vegetation in good condition with high biodiversity values; retention of habitat linkages to conservation reserves; retention of habitat for threatened fauna species; implementation of a Water Quality Management Strategy; preparation of an Ecological Site Management Plan and transfer of land to public reserve as part of the Coastal Open Space System. This ensures that regionally significant vegetation within the site will be retained and improved.

The complete Sustainability Criteria assessment is detailed in *Annex Q*.

2.4.3

Gosford Vision 2025

The Gosford Vision 2025 is an overarching strategic planning initiative that has been designed to help decide future paths that Council and the community take to create a city where they want to live. Following extensive community consultation, the following key focus areas were developed:

- creating economic opportunity and employment;
- improving transportation and infrastructure;
- protecting the environment;
- strengthening local and regional identity;
- enhancing arts and culture;

- promoting health and safety;
- supporting families, youth and the elderly;
- expanding education and skills development; and
- management of the future.

With regards to the proposed rezoning, the following key areas are considered most relevant;

- creating economic opportunity and employment;
- improving transportation and infrastructure;
- protecting the environment; and
- management of the future.

An assessment of the proposal against these provisions has been undertaken and is provided within *Annex Q*.

2.4.4 *New South Wales Coastal Policy 1997*

In accordance with Section 117(2) Direction No. 6 – Coastal Protection, in preparing a draft LEP, Councils in the coastal zone are required to include provisions that give effect to and are in accordance with the NSW Coastal Policy 1997.

The NSW Coastal Policy 1997 is a guide for land use decision making in the designated coastal zone.

It recognises that the coast is the focus of intense pressures from human activity and that there are a large range of competing interests for its resources. A decision making approach based on ecologically sustainable development seeks to reconcile these competing interests.

The Coastal Policy has nine goals, which are:

- to protect, rehabilitate and improve the natural environment;
- to recognise and accommodate natural processes and climate change;
- to protect and enhance the aesthetic qualities of the coastal zone;
- to protect and conserve cultural heritage;
- to promote ecologically sustainable development and use of resources;
- to provide for ecologically sustainable human settlement;

- to provide for appropriate public access and use;
- to provide information to enable effective management; and
- to provide for integrated planning and management.

Part B “Implementation” of the policy provides a framework with which to undertake an assessment of a draft LEP’s consistency with the provisions of the Policy. The tables provided within this part of the policy detail a number of strategic actions and the bodies responsible for their implementation. The assessment of the consistency of the rezoning with the policy has been limited to those strategic actions which are identified for implementation by either the local councils, or the Department of Planning (referred to as the Department of Urban Affairs and Planning within the document). These are specifically identified within Table 1 “Strategic Action Relevant to the Preparation of LEP’s” as contained within Appendix C of the Policy. An assessment of the proposals consistency with these provisions has been undertaken and is included within *Annex Q*.

With regards to Table 3 “Design and Locational Principles for Consideration in LEP’s, DCP’s and Development Control”, these considerations relate primarily to development of sensitive coastal foreshore locations. As the site is not a sensitive coastal foreshore location, these design and locational principles do not require further consideration.

2.4.5 *Coastal Design Guidelines for New South Wales*

The Coastal Design Guidelines for NSW (2003) provide a framework for discussion and decision making involving coastal planning, design and development proposals.

The document is divided into three parts. Part one describes the concept of determining a hierarchy of coastal settlements and how this relates to planning within the local area. It defines seven coastal types which can be used to analyse and understand urban development along the NSW coast. It also discusses the major issues facing each settlement type, current and future opportunities for each settlement type and the desired future character of the settlement. Part two explains components of a settlements structure in the form of design guidelines. Part three provides a general discussion on the future of the guidelines.

Part 1 – Hierarchy of Settlement

The Policy recognises that all settlement types exhibit differences in terms of size, servicing, infrastructure and employment opportunities, as well as urban and natural characteristics. For this reason, a hierarchy of settlement types have been identified, recognising that all settlements are interconnected and interdependent.

The rezoning forms part of an urban corridor that is considered to be part of a coastal city as defined by the Policy. The primary identified challenge for the continued growth and success of coastal cities is the need to balance the requirement to accommodate growth which recognises the need to retain the existing character. This includes consideration of the scale of development relative to the existing environmental context, views, access, transport and amenity. The future desired character of these coastal cities can be described by referring to six elements:

- relationship to the environment;
- visual sensitivity;
- edges to water and natural areas;
- streets;
- buildings;
- heights

A checklist of the consistency of the rezoning with the elements is provided in within *Annex Q*.

2.4.6 *Coastal Management Guidelines*

The Coastal Management Guidelines have been put in place to assist in the implementation of the Coastline Hazard Policy. The Coastline Hazard Policy introduces a range of planning and structural measures which provide for:

- the establishment of a statewide management system which requires balanced management of the coastline;
- the control of the potential for losses in new development through the application of effective planning controls designed to ensure that the development is compatible with the hazards;
- a reduction in the impact of hazards on existing development areas through the construction of protective works and/or the voluntary purchase of properties at equitable prices; and
- the construction of beach improvement works to protect or enhance the recreational amenity of the States most heavily used beaches.

As the site is not located in a coastal foreshore setting subject to significant natural coastal processes and hazards, further consideration of these guidelines is not considered necessary.

2.5.1

Gosford City Council Rainforest Policy

This policy aims to recognise the particular value of rainforests to a natural biological system and the suites (dry, galley, gully and littoral) that occur within them. It provides for detailed vegetation mapping and assessment criteria for development assessments and rezonings. All rainforest areas across the LGA are identified either through the mapping as shown in Attachment 1 of the policy, or as a species composition description.

The Gosford City Council Rainforest Policy requires the preparation of a Statement of Environmental Effects (SoEE) where a development application falls within or adjacent to an area mapped as rainforest under the policy to determine the impact of the proposal upon that rainforest area. Ecological assessments undertaken as part of the LES (see *Annex C*) identified riparian and rainforest vegetation within the site, including rainforest species identified within the Rainforest Policy. A SoEE has been prepared in accordance with the Rainforest Policy (see *Annex T*).

2.5.2

Gosford City Council Landscape and Vegetation Management Policy

This Policy aims to achieve a physical environment which capitalizes on the landscape qualities of the natural topography and vegetation of the Central Coast and accommodates appropriate development. Section 7.6 requires requests to Council for rezoning to include details of the vegetation on the land.

An ecological site assessment (*Section 4.2* and *Annex C*) was undertaken which identifies all flora occurring on site. This is accompanied by an Ecological Site Management Plan and Vegetation Management Plan for implementation such that the landscape and environmental qualities of the site are retained.

2.5.3

Gosford City Council Erosion/Sedimentation Control Policy

This policy has been designed to minimise the erosion of soil and the pollution of waterways and bushland from any eroded sediment. A code of practice (Code of Practice: Erosion and Sediment Control) was subsequently prepared which sets uniform soil and water management standards and a guide to their implementation and enforcement. An erosion and sediment control plan prepared in accordance with the code is required to be developed for submission with each development application.

At this stage of the process, whilst a concept proposal is being put forward no development application has been lodged. Therefore an erosion and sediment control plan is not required to be submitted.

This Policy was developed to supplement the provisions of the IDO No. 122 which currently applies to the land. Large parcels of 7(a) Conservation and Scenic Protection (Conservation) zoned land outside the Coastal Open Space System are viewed by Council as being an important part of the landscape with existing planning controls implemented to ensure that they remain largely undeveloped. The Rezoning Conservation Land Policy was introduced to ensure that any Draft Local Environmental Plan (DLEP) was subject to intensive investigations prior to any LEP being gazetted.

The objectives of the Policy are:

- to define objectives for the conservation zone to ensure the long term preservation of the scenic and environmental qualities of the region to ensure DLEP's are consistent with the prescribed objectives; and
- to establish criteria to be used by Council to assess requirements to prepare DLEP's primarily for the purpose of providing dedication of strategically, environmentally and scenically important land for the community benefit in exchange for additional development rights having regard to the lands attributes pertaining to the zone boundary of the 7(a) conservation zone.

The 7(a) component of the site has been zoned E2 under the provisions of draft GLEP 2009 and the majority is proposed to be rezoned to RE1 and dedicated to Council as part of any draft LEP. An additional area in the north west portion of the site containing a mapped rainforest community is proposed to remain zoned E2. However, components of the site, zoned 7(a) are proposed to be rezoned R2 (refer to *Figure 1.4*). Due to this, the requirements of the policy pertaining to zone objectives and submission of studies such as land capability studies, flora and fauna assessment, visual analysis and bushfire hazard assessment, have been undertaken for such areas and the remainder of the site.

The underlying intent of the policy, along with Clause 18(4) and 18(5) of the IDO No. 122 has been examined with regards to the proposal. IDO No. 122 and the Policy (which has presumably been developed to aid in interpretation and implementation of the provisions of Clause 18(4) and 18(5)) allow for a transfer of development rights where dedication of land is occurring as part of a rezoning application in instances where the appropriateness of the delineation of the 7(a) boundary is being questioned. It is also relevant in relation to subdivision applications, particularly in the case of land zoned 7(c2) and 7(a) in the same ownership. Clause 18(5) allows for the 7(c2) land to be subdivided into one hectare portions (as compared to two hectare portions as required by Clause 18(3)) where 7(a) land is being added to the COSS.

In this particular instance, the zone boundary of the 7(a) area is not being altered. The rezoning is simply seeking more intensive development of the area currently zoned 7(c2) into lots below the one and two hectare development standards as defined within the IDO No. 122. Should a draft LEP proceed, then the dedication of 27.2 hectares of 7(a) land to the Council, (a form of transferable development rights, as is the underlying intent of the policy) will take place and the COSS will have been enhanced (see *Annex D*).

This contribution will provide a link within the COSS which will allow residents of Avoca Beach to access the Kincumber Mountain Reserve via Picketts Valley Road. As an additional offset, Crighton Properties will undertake rehabilitation/bush regeneration works within the current 7(a) zone prior to dedication to ensure that the site is able to positively contribute to the ecological functionality of the COSS.

2.5.5 *Gosford City Council Biodiversity Strategy*

This policy aims to conserve the diversity and abundance of locally occurring native plants, animals and micro-organisms in Gosford City at the genetic, species and ecosystem level. With regards to the rezoning process, the policy requires:

- Council actively support, exercise and promote the principles of ecologically sustainable development in the assessment of all rezonings;
- when assessing rezonings, ensure that ecological processes and ecosystem functioning are not impact adversely by any proposed development or activity; and
- ensure that rezonings consider the requirements of approved recovery plans and threatened species assessment and protection.

Additionally, the following key strategies are developed to protect and promote biodiversity:

- protect and conserve biodiversity and maintain ecological processes;
- integrate biodiversity conservation and natural resources management;
- educate and involve/consult the community;
- collect information and improve knowledge and research;
- identify, prevent and mitigate the cause of bio – threatening processes; and
- allocate resource and develop a biodiversity operational plan.

An ecological site assessment was undertaken (see *Section 4.2 and Annex C*) to determine the impacts of the rezoning and ascertain if development can be undertaken in a manner that accords with the principles outlined by the Policy. This assessment was undertaken in accordance with the requirements

of the EP&A Act 1979 and the Threatened Species Conservation Act 1995 and addressed all key elements as required by the Policy. Key findings of the assessment with regards to principles of biodiversity were:

“In relation to the subject site and proposed rezoning the first strategy (Protect and Conserve Biodiversity and Maintain Ecological Processes) is the most appropriate. In this regard the following actions identified for this strategy are relevant:

- 1) Enable biodiversity conservation to be taken into consideration in Council’s strategic planning;*
- 2) Environmental zoned lands need to be retained with current minimum lots area standards to enable the lot sizes to allow sufficient space for land uses to occur without loss of biodiversity;*
- 3) The land zoning and permitted land uses within identified vegetation and wildlife corridors and riparian habitats need to reflect the biodiversity values;*
- 4) Consider biodiversity criteria for conserving areas of high biodiversity working towards maintenance and enhancement of existing biodiversity as a key priority with the aim of no net loss in development assessments and future LEP’s;*
- 5) Council to consider the development of an offset policy in accordance with Department of Environmental and Climate Change – biobanking;*
- 6) Identify, protect and manage wildlife and vegetation corridors to maintain biodiversity.*

These actions have been incorporated into the assessments undertaken and consideration of the impacts on biodiversity. The current proposal endeavours to retain areas of higher biodiversity value and concentrate development within areas of low to moderate biodiversity values. Areas of the site which have been recognised as a priority area for inclusion in the Coastal Open Space System are proposed to be transferred to Council for extension of the Kincumba Mountain Reserve.”

2.5.6 Terrigal Lagoon Management Strategy

The Coastal Lagoon Management Plan is a document that presents a series of strategies for the management of the four coastal lagoons of Wamberal, Avoca, Terrigal, Cockrone and their respective catchments. The site is within the catchment of the Terrigal Lagoon.

The specific management objectives for the Terrigal Lagoon are:

- manage, develop, protect, restore, enhance and conserve the environmental character of the lagoon and the catchment;

- promote environmentally sensitive areas;
- promote the ecological sustainability of the lagoon and catchment;
- to implement management strategies that reflect the integration of flooding, water quality and marine lagoon ecology; and
- to promote the cultural features of the lagoon and catchment.

The use of water sensitive urban design principles in conjunction with the reuse of wastewater and stormwater will achieve a 50% reduction in the demand for potable water relative to a comparable standard urban area. Active management of stormwater run – off from the site during construction works will ensure that there are no unacceptable discharges from the site. Basic elements of the Water Cycle Management Plan applicable to the lagoon management plan include:

- mechanisms to be put in place that will collect and treat the rainfall runoff from pavement and landscaped areas, prior to it discharging into the creek and existing dams;
- semi permanent measures to be put in place during construction processes based upon guidelines prescribed by Managing Urban Stormwater Soils and Construction;
- permanent measures will include grass lined inter – allotment bio – swales, grass lined overland flow paths and buffer strips;
- at the subdivision level minor gross pollutant traps and wetlands/ponds making use of the existing dams will be used to ensure that there are no unacceptable discharges from the development site; and
- post development flows will match pre development flows from the catchment area.

2.5.7

Development Control Plan 89 – Scenic Quality

DCP 89 provides more details with regards to the implementation and management of the scenic qualities of Gosford and applies when a development application or rezoning application is prepared. The key elements of the DCP are contained within Section 2 “Overview of Development Control Plan” and include:

- protection of vegetated ridgelines and upper slopes;
- new development to have regard to character of areas both built and natural;
- retention of non – urban breaks between urban areas;

- ensuring built environment does not dominate landscape features in non – urban areas; and
- highlighting the quality of particular areas.

Due to the visual diversity within the Gosford City LGA the DCP segregates the area into distinct visual geographic units. The site is contained within the North Coastal – Terrigal geographic unit, with the visual landscape being identified as being of regional significance. Given the E2 and E3 zoning of the site, the impacts of development of the site on the visual environment has been identified as one of the primary issues requiring assessment. A comprehensive visual assessment has been undertaken (*Annex N*), as discussed within *Section 4.8*.

According to the DCP, this geographic unit has the following qualities:

Landscape Character

The Terrigal Landscape Unit is strongly enclosed as a result of landform characteristics and contains the most urban of the coastal settlements of Gosford centred on the beach, Terrigal Haven and The Skillion and surrounding the Lagoon. As a result of the landform and vegetation characteristics, the landscape and development is co – dominant. The Terrigal areas comprises significant coastal landscape features including the beach to Wamberal Lagoon and foreshore areas and The Skillion. The primary urban and commercial areas concentrate on the sea side of the lagoon while the area to the west is more suburban and surrounded by rural – residential hinterland. The rural – residential hinterland occupies higher ground in the unit and provides a natural backdrop to the unit and a contrast to highly urbanised sections of the unit.

Scenic Conservation Issues

The maintenance of scenic character requires careful attention to the siting and scale of urban elements so as not to overpower the natural elements of the lagoon, beach and surrounding natural backdrop. Particular attention needs to be paid to maintaining co – dominance of the landscape and development with regard being given to retention of Scenic Protection and Conservation zoned backdrop to the unit. Conservation 7(a) zoned lands in these areas act as the hinterland to the coastline and are intrinsic to the scenic qualities of the region. The 7(a) land also adds “definition” to localities and contributes to overall perception of the coastal environment.

Absorption Capacity

Moderate to high for residential uses on the lower slopes, lower on the upper slopes and ridges and low in the beach front, headland slopes and lagoon areas.

Visual Sensitivity

High in the lagoon margins, beach front, sand spit and headland areas and rural – residential hinterland/

Statement of Significance

The area is of regional scenic value. It exhibits a wide range of coastal environments of outstanding beauty within a discrete area, is a tourist destination with a long history and has a mixture of natural and human elements of great charm.

An assessment of the proposal's consistency with the objectives of DCP 89 is included within *Annex Q*.

2.5.8 *Development Control Plan 163 – Geotechnical Requirements for Development Applications.*

DCP 163 aims to provide detailed guidelines for the submission of geotechnical reports to support development applications. Specifically, the objectives are:

- to provide a management strategy for development in areas in the city identified as having landslip potential;
- to establish guidelines relating to the development of quarry areas within the city; and
- to provide guidelines on the content and form of geotechnical reports submitted to Council.

With regards to the rezoning, the DCP does not specifically require a geotechnical assessment be presented to Council. This is only a requirement of the DCP when a development application has been lodged. However, a geotechnical/landslip assessment has been undertaken to ensure that there are no geotechnical constraints inherent within the site that will limit its development potential (see *Annex K*). See *Section 4.1* for a summary of the findings of this report.

2.5.9 *Draft Gosford Residential Strategy*

The Draft Gosford Residential Strategy was developed in conjunction with draft GLEP 2009 and is used to supplement both this and the Central Coast Regional Strategy. The Central Coast Regional Strategy clearly identified that for Gosford, all new development will be located within existing urban areas this continuing the urban consolidation policies first released in the 1980's. This document, aims to promote the development around compact urban areas to reduce urban sprawl and to retain bush and rural landscapes. The

strategy identifies a number of trends and drivers that shape the demand for amount and type of urban land. These are:

- population growth;
- household change;
- sustainable growth;
- infrastructure capability;
- housing affordability;
- physical limitations; and
- economic opportunity.

Arising from this, a number of objectives were developed which are to be utilised when giving consideration to the release of land for urban development. An assessment of the proposal against the objective and goals of the strategy is included within *Annex Q*.

2.5.10 *Draft Gosford Development Control Plan 2009*

The draft Gosford Development Control Plan 2009 (draft GDCP) seeks to consolidate the existing development control plans (DCPs) into one guiding document that is consistent with the draft GLEP 2009. The aims and objectives of the draft GDCP are:

- *'to identify Council's expectations and requirements for development within Gosford local government area and build upon the Gosford LEP 2009 by providing detailed objectives and controls for development;*
- *to ensure that all development is consistent with the desired character of the surrounding neighbourhood;*
- *to identify approaches and techniques which promote quality urban design and architectural outcomes in Gosford local government area;*
- *to promote best practice and quality environmental outcomes.'*

The draft GDCP provides detailed guidance and specific controls for development across the local government area. An assessment of the proposal against the objectives and goals of the draft GDCP is included within *Annex Q*.

3.1 PILOT PROJECT

Crighton Properties are proposing to construct what is essentially a pilot project and then facilitate the monitoring of the success of the project. The concept has been the subject of a discussion paper compiled by Dr Tony Gilmore, Research Policy Manager of the Planning Research Centre at the University of Sydney, entitled "Creating a Wired Home Business Community on the Central Coast" (Gilmour 2005, *Annex L*).

There are four distinct elements of this proposal which in coming together make it a unique concept. These four distinct elements are described below:

- the consolidation of 145 home based businesses within a master planned Community Title subdivision. This has a number of benefits relating specifically to business development, growth in employment opportunities created by the proposal as opposed to a traditional residence based estate, and the subsequent facilitation of growth of the local, regional and national economies;
- provision of a dedicated business support hub containing meeting rooms, conference facilities, clerical support and other business related support facilities. Such a support hub will attract both established and growing businesses, allowing for a cooperative and streamlined approach to small business development;
- the community will be a wired community, using high speed broadband connectivity to link all the houses and community facilities within the estate to provide for ease of access to information. This concept is being increasingly utilised in master planned residential communities. Examples include Blacksburg, Virginia, in the United States of America which on its establishment in 1992, was considered to be one of the earliest wired community (Gilmour 2005). Connected residents can readily obtain information on local health care, clubs, societies, and community news. Examples within Australia include the Brookwater Estate in Queensland, and the Aurora Estate in Melbourne. Both these are master planned residential communities with a strong emphasis being placed on provision of high speed broadband; and
- an identified deficiency in most of the "wired communities" that have been developed over the world in the past 15 years is the lack of follow up monitoring being undertaken to discover whether they have achieved their economic or environmental objectives (Gilmour 2005). The Parkside@Terrigal concept has been developed in a partnership which will allow for a well developed, structured, long term monitoring program to be put in place. Monitoring will be undertaken by the University of Sydney's Planning Research Centre, managed in conjunction with the "Central Coast

Campus”, which is a partnership between the Central Coast Community College, TAFE NSW Hunter College and the University of Newcastle. Sydney University will focus on issues of urban planning with the Central Coasts Campus’s Faculty of Information and Communications Technology assisting with technology advice and the success of the community intranet.

3.2 *NEED FOR PROPOSAL*

There are a number of identified needs which the Parkside@Terrigal development provides an opportunity to address. These needs arise primarily from well documented issues facing the Central Coast region, as well as the changing demographic for Australia as a whole, and relate primarily to the following:

- provision of more employment opportunities on the Central Coast;
- provision of a greater diversity of employment opportunities on the Central Coast;
- accommodation of the growing trend towards small and home based businesses within Australia;
- achievement of strategic planning outcomes through the provision of housing stock along with employment opportunities; and
- facilitation of the economic growth of the Gosford LGA.

3.2.1 *Employment*

The Central Coast Regional Strategy (CCRS) identifies a number of hurdles that will need to be overcome in order to promote for the orderly sustainable development of the Central Coast region over a 25 year period. The strategy aims to create prosperous, liveable and vibrant communities supported by a range of living and employment opportunities which contribute to a competitive and adaptable local economy.

A number of challenges are identified in the CCRS including the provision of adequate infrastructure and services to accommodate a growing population, the need to minimise impacts on the ecological and biodiversity values of the local environment, careful consideration of the growth of urban areas within the region, and the generation of the economic and employment activity needed to provide for the projected population growth. Key considerations within the CCRS as they relate to employment generation and economic growth consist of:

- the provision of increased employment opportunities and greater diversity of jobs and sufficiently zoned land to enable the region's economy to become more robust and adaptable. The proposed development seeks to encourage investment, job creation and subsequent generation of economic growth;
- regional transport networks and the location of future employment opportunities must support economic growth and maximise the efficiency of transport movement; and
- the region needs to take advantage of its location between the global city of Sydney and the regional city of Newcastle, whilst increasing local employment to reduce commuting. It aims to reduce the number of these commuters by providing more local jobs and strategically targeting employment types that support the greater Metropolitan area.

It is anticipated that in order to address these key concerns, an additional 35,000 full time jobs need to be created within the region. The CCRS identifies a number of key areas where employment land can be created. This includes 6,000 jobs in Gosford, 4,500 jobs in the Tuggerah/Wyong area, 7,500 jobs in the North Wyong Shire Structure Plan Area, and 6,000 jobs in other identified employment land. The remaining jobs (11,200) are to be provided throughout the region.

Following on from the challenges identified in the CCRS, the Regional Economic Development and Employment Strategy (REDES) was prepared and publicly released by the Premier in early 2010.

The REDES provides strategic direction to generate the jobs identified in the CCRS, and a framework for sustainable economic development and job generation in the region. The following strategies are identified in the REDES:

- attracting new businesses and supporting existing businesses;
- improving the training and skills development opportunities;
- increasing research, knowledge and innovation;
- ensuring appropriate planning processes and land supplies;
- planning for regional economic centres;
- providing new infrastructure; and
- marketing the region as an attractive business location.

An assessment of the contribution that the rezoning makes to these strategies has been included in *Table 3.1*.

Table 3.1 **Consistency with the Regional Economic Development and Employment Strategy (REDES)**

Strategy	Proposal
Strategy 1. Strengthening the Regional Economy Securing new jobs and supporting existing jobs by: • Facilitating employment growth associated with population growth; • Building on existing advantages in food production, logistics, manufacturing and tourism; • Creating new advantages through clusters in the health, green industries and ageing sectors. Attracting new businesses to the region, especially in the following sectors: • Food production and associated services; • Logistics and associated services; • Manufacturing; • Tourism; • Government agencies; and • Call and service centres. Supporting business growth by developing existing small and medium sized enterprises (SMEs) through: • Business mentoring programs; • Business development programs; • Active business incubators; and • Business training programs.	It is considered that the proposed rezoning to facilitate the hi-tech home business park will positively contribute to meeting these employment and economic aims. The Parkside concept provides for 145 dwellings all of which will accommodate a home based business activity, all with access to facilities within the business hub such as technological support facilities, stationary and business needs, meeting rooms and an on – site manager to program resource usage and business resources. The Parkside development will serve as a business incubator and encourage the establishment of small to medium enterprises. The co-location of these SMEs has the potential to provide business mentoring and training opportunities.
Strategy 2. Developing Future Skills • Designating the Central Coast as a learning region by: • Establishing a Central Coast Learning Region Network, which will promote a learning culture, create community awareness and an increase in take-up of education and training. Boosting skills through: • Sector skills action plans covering skill shortages, emerging industries and small business and establishing business education partnerships. Strengthening business/education partnerships by: • Brokering business engagement with schools; • Ensuring young people develop skills for future employment; and • Increasing uptake of vocational education and training (VET) in schools programs, work experience and apprenticeships. Providing targeted skills programs focused on: • Re-skilling mature aged workers; • Providing work skills for disadvantaged people; • Developing new skills for displaced workers; and • Developing employment skills within	The Parkside development has the potential to provide education opportunities for young people in industries and fields that have not traditionally been established on the Central Coast. The co-location of multiple small businesses at Parkside will provide a showcase of diverse business endeavours, and could act to ‘seed’ new skills into the region.

Strategy	Proposal
indigenous communities.	
Strategy 3. Increasing knowledge and innovation through: Developing research programs focused on: • Existing sectors, such as health sciences, education, sports science, coastal ecologies and agribusiness; and • New sectors, such as green industries - environment and energy, ageing and logistics. Establishing knowledge precincts by: • Creating education/research precincts at Ourimbah and in the strategic centres of Gosford and Tuggerah-Wyong. Establishing a Central Coast Research Centre focused on: • Facilitating innovation in local business through research linkages and new programs; and • Monitoring trends in the region. Encouraging innovation by: • Creating new knowledge business; • Developing and strengthening innovative businesses; and • Developing business linkages.	Parkside will provide the ideal opportunity to establish small businesses in the region. The co-location of multiple small business around the hub of Parkside has the potential to generate linkages between local business and encourage local business innovation. The unique concept will provide for an increased diversity in employment types and choices. In addition to allowing for the establishment of small home based operations, the possibility will exist to branches/outposts of larger national or multinational organisations to establish themselves in the area. The technological services provided within the estate will allow all these businesses to have reliable access to information through the internet.
Strategy 4. Ensuring an adequate supply of lands for employment Ensuring land supply by: • Developing an up to date understanding of both current land supply and future land supply opportunities; and • Developing a strategic framework for the future delivery of lands for employment. Streamlining planning processes by: • Identifying strategic projects; • Implementing streamlined approval processes; • Continuing to implement the State Government's reforms to the NSW planning system; and • Facilitating the timely delivery of major development proposals and ensuring an ongoing supply of land for employment.	The rezoning to enable the proposed hi - tech home business estate could form part of future strategic framework for employment land supply.
Strategy 5. Focus on centres development • Creating sustainable centres as major employment hubs; • Developing key centres in accordance with the Central Coast Regional Strategy; • Developing a stronger network of new, revitalised and vibrant centres across the region; • Providing suitable locations for small business; • Ensuring suitable commercial space is available to attract larger employers to the region; and • Providing suitable commercial and retail floor	Parkside will provide the ideal opportunity to establish small businesses in the region. The development is designed to function as an incubation unit for business, with businesses migrating out to the centres nearby when they have 'outgrown' the development.

Strategy	Proposal
space in lower order centres.	
Strategy 6. Provision of infrastructure to support economic growth • Developing a regional infrastructure plan covering road links, rail, public transport, telecommunications, water and energy; and • Advocating for the Central Coast to be a priority region for the national broadband network.	The proposed home business park will utilise existing infrastructure as it is located in an already serviced urban corridor between two centres, Erina and Terrigal. The high speed internet and communication facilities provided under the proposal will deliver telecommunications infrastructure and support economic growth.
Strategy 7. Marketing the region as a business location • Positioning the Central Coast as a business location; • Developing marketing tools for broader use; and • Developing coordinated investment attraction marketing.	Parkside has the potential to be showcase development, illustrating to the business community the opportunities provided by the co-location of hi-tech business facilities and homes. The development could be used to market the region to future investors looking to develop a similar type of real estate. Parkside may provide economic benefits as a demonstration of a hi-technology project

It is considered that the proposed rezoning to facilitate the hi-tech home business park estate will positively contribute to meeting the employment and economic aims of the CRCS. The concept provides for 145 dwellings all of which will accommodate a home based business activity, all with access to facilities within the business hub such as technological support facilities, stationary and business needs, meeting rooms and an on – site manager to program resource usage and business resources. The unique concept will provide for an increased diversity in employment types and choices in accordance with the CCRS. In addition to allowing for the establishment of small home based operations, the possibility will exist to branches/outposts of larger national or multinational organisations to establish themselves in the area. The technological services provided within the estate will allow all these businesses to have reliable access to information through the internet.

The employment and economic impact assessment prepared for this project estimated that the proposal will employ an additional person in addition to the occupants of the dwelling (Holmes 2005) (refer to *Annex M*), with a total of approximately 220 people working in (or from) the estate. However, when factoring in a common employment multiplier of two, (for each full time equivalent (FTE) job there will be another supported by the economic flow associated with the wages of the staff employed), a total national multiplied effect of 440 jobs would be created. Approximately 300 of these jobs would relate directly to the immediate region, thus contributing to the overall provision of employment within the area in a manner that encourages diversity of employment choices. Additionally, 1,105 FTE construction jobs would be created during the construction phase of the project, with an estimated 637 of these occurring within the immediate region (Holmes 2005).

The overall increased choice and number of employment opportunities that are likely to arise from the proposal will limit the amount of commuters who reside in the area yet work in the adjoining larger metropolitan areas of Sydney and Newcastle. The technological facilities that will be available within the estate will allow people to live and work from the Terrigal area yet still be able to access and receive information from Sydney in a prompt and reliable fashion.

3.2.2 *Small and Home Based Businesses*

There is a growing trend towards home based businesses in Australia. According to research released by the Australia Bureau of Statistics (ABS) and summarised in the Sydney Morning Herald (29 April 2005):

More than half of the nations 1.3 million small businesses comprise just one person, and the ranks of those working from home are swelling. The bureau's latest figures show the proportion of small business based in the home rose from 58.3 per cent in 1997 to 67.5 per cent last June. About 70 per cent of the home-based business operators were men. The typical business is a middle aged man working 35 – 50 hours a week from home. The proportion of people working part- time in a home based business was higher than in other small businesses. But about 30 per cent of small business operators worked more than 50 hours a week, and about 5 per cent work more than 75 hours.

The growth in the small business sector is largely being driven by home based business activity. Given this, an environment needs to be created which allows small and home based business to flourish and continue to contribute positively to the economy. A number of initiatives have been put in place at all levels of government which aims to continue to encourage small business development. The Commonwealth Government has formed "AusIndustry" which delivers approximately \$2 billion in benefits each year to small and large businesses, one of which is the Regulation Reduction Incentive Fund.

This provides funds to Local Governments to assist in making the development approval process required to establish a home business smoother by simplifying development application processes, simplified planning controls, as well as providing easily accessible information as to the permissibility of home business and the approval process.

The New South Wales Department of State and Regional Development (DSRD) provides incentives and programs which are aimed at encouraging the development of small business. One example of this is the Home-Based Business Program, which provides action programs on business planning, marketing and better systems to equip home-based operators with the tools to plan their business direction and growth.

The New South Wales Department of State and Regional Development provides incentives and programs which are aimed at encouraging the development of small business. One example of which is the Innovative Technology Network which promotes business efficiency and competitiveness through the uptake of new technologies and innovative practices.

The proposed rezoning and subsequent development of the proposed hi-tech home business park estate will assist in addressing this need/opportunity to develop home based small businesses within the Gosford LGA. Business operators will be able to establish within the site with a high degree of certainty that they will be able to conduct business in the manner they require. This will be reinforced in the community management statement as part of the Community Title subdivision.

The clustering of so many small businesses within a technologically based community will allow for the sharing of ideas between business owners, thus increasing business efficiency and fostering innovation within businesses. This essentially amounts to a small business incubation unit which would help nurture modest scale businesses at their early stage of growth by providing shared business services at a lower cost.

3.2.3 *Facilitation of Economic Growth*

The economic and employment impact assessment carried out by Professor Scott Holmes (2005, *Annex M*) provides a comprehensive investigation of the economic benefits resulting from the development of the Parkside@Terrigal concept. The executive summary of this report states:

“The project has three key elements:

- 1. Construction of the development as a whole, incorporating a technology hub and community facilities;*
- 2. Impact of additional residential population; and*
- 3. Impact of the operation of the commercial (home based business) component of the development;*

The ongoing annual economic impact of the residential and commercial components are also significant in terms of both employment and on-going economic impact:

- The annual wealth benefit from the residential estate is \$14.7m nationally. The benefit to the Central Coast Region will be \$12.5m per annum, involving some substitution effect from other areas of the economy;*

- The annual benefit flowing from the home based business activities is \$35m with \$8.4m captured by the immediate Region. A total of 220 full time jobs will be created within the Region supporting 110 owner/operators and 110 employees. The breakdown of industry sectors which will be represented has not been predicted. However, a common employment multiplier a factor of 2 (that is for each FTE job there will be another supported by the economic flow associated with the wages of the FTE jobs). This would make the total national multiplied effect 440 jobs, with 308 directly relating to the immediate region;
- The annual pay packet effect for the additional jobs is estimated to be \$3.4m per annum and \$14.6m (including net returns) for operator households; and
- When the benefits are average over a 10 year life cycle the annual benefits to the national economy are \$38m of which \$19m of 50% flows in to the Central Coast Region.

Table 3.2 Economic Impact – Fully Operational

<i>Product/Service</i>	<i>National output gain \$m</i>	<i>Economic gain to the Central Coast \$m</i>	<i>National employment gain #FTE</i>	<i>Employment increase in the Central Coast #FTE</i>
Construction of the whole Development	\$182	\$73m	1,105	637
Income from new households moving to the area	NA	\$12.5m	NA	NA
Economic benefit from the new property development	\$3.8m	\$3.2m	6.5	6.5
Commercial activities	\$35m	\$8.4m	-	308

If the estate was a simple dormitory suburb then the household wealth effect would be \$14.7m per annum. Operating the development as a home based business estate changes the overall wealth effect to \$35m per annum. This represents a 100% increase in the household wealth effect and this has a significant flow – on effect in the local economy, both in spending and employment.”

3.3 RELATIONSHIP WITH EXISTING BUSINESSES

The development of the site for the purposes of a hi – tech home business estate is not considered to be a source of negative interaction with existing business zoned land within the Gosford City Council LGA. Within existing residential zones, home based businesses and industries are presently able to be established, in some cases being classified as exempt development. With the growing trend towards smaller and home based business (see *Section 3.2*)

an environment needs to be created specifically for the purposes of catering for the needs of these businesses. Often locating a business which employs only one, two or three people within a business/building within a commercial zone is economically unviable, with most commercial space being catered towards larger businesses.

The rezoning seeks to create an environment where small businesses are able to be based from residences (thus avoiding the payment of large amounts of rental overheads), whilst clustering together in an environment that provides support specifically directed towards the development needs of small business. Clustering small businesses, rather than allowing them to disperse within the existing urban mosaic allows for greater sharing of ideas and information.

Given the above, the development which will arise from the rezoning will not negatively interact with existing business zoned land. Instead it will attract small businesses that may otherwise set up within the confines of their own residences rather than seeking out commercial floor space within existing business zoned land. The economic impact assessment has been predicated on 85% of buyers of home-business enabled homes coming from outside the region. If this amount does not transpire, and a greater proportion of existing local business relocate to Parkside, this will still result in an upgrading of current business capabilities and have flow on effects on business competitiveness in the region. The growth of small businesses will require the services of larger businesses to ensure long term sustainability. This type of iterative growth will serve to cumulatively develop the regional economy, its capabilities and breadth of services on offer to residents.

3.4

LONG TERM SOCIAL AMENITY IMPACTS

It has been identified that the proposal has the potential to directly impact upon the social amenity of the surrounding residential areas through traffic flows, disruption caused directly by operation of home businesses, and increased demand on infrastructure. It is considered that the hi – tech home business park estate is a planned, serviced version of what can potentially occur within existing residential estates utilising existing exempt development provisions. That is, a cluster of small businesses operating as home occupations. The proposal seeks to provide a setting where these businesses are afforded the appropriate support and are able to flourish.

The traffic impact assessment (provided as *Annex B* and summarised in *Section 4.7*) concludes that traffic impacts associated with the proposal will be comparable to that of a standard residential development and therefore will not disrupt social amenity by way of noise or greatly increased traffic flows.

The social impact assessment (provided as *Annex J* and summarised in *Section 3.5*) concludes that there is sufficient private and public infrastructure capacity within the immediate area to be able to cater for the social needs of residents of the proposed hi – tech business park estate.

There is substantial capacity for home business activities to impact upon the amenity in means such as noise and air pollution. The need to separate dwellings within the site from existing surrounding residences has been accommodated in the formulation of the Concept Plan (*Chapter 5*). Additionally, any requirements for home businesses to be established on the site will be subject to the same standards as existing businesses must meet.

3.5 *PROVISION OF SERVICES*

3.5.1 *Hard Infrastructure*

A water cycle management plan and service capacity assessment is provided as *Annex G*. A supplementary consultant's report addressing sewerage options for the proposed development has also been provided at *Annex S*. Key elements of these assessments are provided in the following pages.

A comprehensive water cycle management plan addressing all the principles of water sensitive urban design has been prepared. This integrated water cycle management plan includes elements such as:

- wastewater treatment and reduction;
- conservation of potable water
- reclaimed waste water and conservation of potable water;
- stormwater and conservation of potable water;
- water wise and conservation of potable water;
- BASIX compliance;
- urban stormwater pollution control, including construction and post construction management; and
- flow management within the built environment.

The use of water sensitive urban design principles in conjunction with the reuse of wastewater and stormwater will achieve a 50% reduction in the demand for potable water relative to a comparable standard residential development. As well, the active management of stormwater run-off from the site during subdivision construction, buildings and afterwards will ensure that there are no unacceptable discharges from the site to the regions coastal lagoon. These measures mean that the proposed development will out-

perform the Governments BASIX targets and will set a new benchmark for water efficiency in a development of this size. Where possible, elements of the existing natural environment will be integrated into the water management cycle.

The proponent is exploring the option of constructing a community title owned and operated recycled water treatment plant (RWTP) to service the entire site. All recycled water infrastructure including pipes, metered connections and the recycled water plant would be owned and maintained by the Community Association. Household and community facility wastewater would be initially piped to the RWTP. This facility would treat and reticulate recycled water to each house for toilet and laundry use. The recycled water would be treated to a similar standard to that produced at Olympic Park Homebush. Advanced waste water treatment technologies would be employed to ensure that recycled wastewater meets the Department of Health guidelines.

The reclaimed treated water would be reticulated back to the households and community facilities for internal use only, for WC flushing and laundry uses as required. Waste from the treatment plant will be discharged to sewer. The use of onsite treated wastewater or the optional use of rainwater tanks and the use of AAA fixtures will on average account for approximately 30% of water usage.

Water

The area is serviced by a 300mm diameter trunk water main, which runs along Kings Avenue, which is inter connected to the main supply 500m diameter main running along Terrigal Drive to the north and to the 375mm diameter main in Karalta Road to the west. These distribution mains are normally fed from the Erina PRV (114mH) which is serviced from the Springfield Service Reservoir. This part of the water supply system can also be back fed from the Forresters Beach area.

Development of the site will require a 150mm diameter water connection off the 300mm diameter main in Kings Avenue. This main will supply potable water and fire service supply to the development.

General enquiries made to Council indicate the existing water supply reticulation adjacent to the site should be able to accommodate the proposed development of the site, without the need for any major upgrade of the local water supply system. This capacity to supply is increased when the water saving initiatives as outlined above are taken into account.

Sewer

The existing sewerage system does not have capacity to cater for the proposed development. The proponent is considering a number of options to cater for the sewerage requirements of the proposed development. These are augmentation of existing sewer assets; the construction of a RWTP or combination of both these options. The RWTP would be constructed with a substantial buffer tank, to balance flows and accommodate instance where the plan was off line. If the option is taken to develop the RWTP on site, preliminary analysis has concluded that augmentation of the existing sewerage system will not be necessary (see *Annex S*). The proponent is committed to the exploration of an innovative wastewater treatment approach and a decision on the preferred wastewater treatment will be made in consultation with Council.

Electricity

Energy Australia is the electricity network provider to the Gosford LGA and greater metropolitan area. Energy Australia has put in place a \$405 million five year plan (2007-2012) to maintain and improve the performance of the electricity supply network within the Central Coast region. This is primarily in response to the recent population growth and increased business investment. Key investments being made within this program include:

- refurbishment of Ourimbah zone substation;
- construction of a new zone substation in the Wamberal – Terrigal area;
- construction of a new power line between Ourimbah and Wamberal;
- possible future substation in the Catherine Hill Bay Area;
- upgrade of Berkeley Vale zone substation;
- upgrade of the Avoca zone substation; and
- future replacement or augmentation of Lake Munmorah zone substation.

This substantial investment will ensure that growth areas are able to be provided with a reliable supply of electricity. Finer details of electricity supply will be determined with Energy Australia during the final design phase.

There is a 132/66kV dual circuit electricity supply line running north/south along the prominent ridge on the site. This presents a constraint to the development of the site and has been considered when determining the overall development capacity of the site and undertaking constraints assessment.

Stormwater

The control of water quality is deemed to be the critical factor. Best practice principles indicate that there are alternative methods of improving water quality on small to medium sized sites. Upon completion of the construction activity the semi – permanent water quality measures installed during subdivision and building construction are to be replaced by permanent mechanisms that will collect and treat the rainfall runoff from pavement and landscape areas, prior to it discharging into the creek and existing dams. Semi – permanent water quality practices will be based upon the guidelines prescribed by the *Managing Urban Stormwater Soils and Construction* document. Permanent measures will include grass lined inter allotment bio – swales, grass lined overland flow paths and buffer strips. At the subdivision level minor gross pollutant traps and wetlands/ponds, making use of the existing dams will be used to ensure there are no unacceptable discharges from the site.

Stormwater quantity controls or onsite detention will be provided within the wetland/pond system. Post development flows will match pre – development flows from the catchment areas. The site is located near the top of the Terrigal Valley catchment and the urbanised footprint lies beyond.

Changes to the existing downstream stormwater infrastructure will not be necessary due to the proposed on – site detention system being sized to ensure that the hydraulic capacity of the existing Kings Avenue culvert are not exceeded. Only minor interfacing between the existing sub – surface and surface drainage systems, and the new subdivision sub – surface and surface drainage systems will be required.

Communications

Access to high speed broad band internet is a critical component of the hi – tech home business estate concept. The Gosford LGA is well covered by a range of broad band types including ADSL, wireless, mobile broad band and satellite. Packages are available from a number of providers which are adequate to serve the communications needs of the proposal.

3.5.2 Soft Infrastructure

A social impact assessment was undertaken by Duo Consulting which provided an overview of the social impacts of the development of Parkside@Terrigal (*Annex J*). It was undertaken predominately as a desktop review of statistical data and incorporated a literature review, as well as limited telephone interviews with key local service providers. Based on key demographic data, the impacts of the proposed hi – tech home business estate upon community infrastructure within the area have been assessed.

Public Transport

Two bus routes pass directly past the site, providing transport links to Erina, Terrigal, Gosford and to the rest of the greater metropolitan area. The primary identified impact on the bus routes assessed will be to provide additional patronage to a key bus corridor thus enhancing viability.

Pedestrian and Bicycle Routes

The concept plan that has been prepared provides pedestrian and cycling links through the site and into the COSS, significantly augmenting current access to the reserves for the local community.

Health Facilities

The primary hospital servicing the Central Coast is the Gosford Hospital which has a total of 460 beds, a 24 hour Emergency Department, fully equipped Intensive Care Unit, Coronary Care and Maternity units, with all major specialties provided except for Immunology, Neurosurgery and Cardiothoracic surgery. Additionally, the hospital is undergoing a major rebuilding and services expansion program. The Gosford Hospital is also supplemented by the private hospital at Gosford North.

On a local level there are three major medical practices within close proximity to the site, being the Terrigal Medical Centre, the Crossways Health Centre and the Wamberal Surgery. Consultation with the Central Coast Urban Division of General Practitioners revealed that all these surgeries are currently accepting additional patients. Therefore it is likely that the population growth associated with Parkside@Terrigal could be accommodated by the existing health services in the area.

Recreation Facilities

The proposed hi - tech home business estate has numerous formal and informal recreational facilities within close proximity. This includes the local network of walkways and cycle ways which connect the site to the COSS, facilities to be provided on site such as tennis courts, swimming pool and gymnasium, as well as the following formal community facilities located in the surrounding area:

- Duffy's Reserve;
- Bridge Coast Basketball and Sports Stadium;
- Terrigal Bowling Club;
- Terrigal Haven Oval;
- Terrigal Memorial Country Club;
- Des Johns Swim School;

- Erina Oval;
- Terrigal Surf Life Saving Club;
- Entrance Road Erina Squash Centre;
- Terrigal Beach; and
- Erina Fair Ice Skating and Cinema complex.

Library services and a larger range of cultural facilities are available within the Gosford CBD as well as at Erina Fair shopping centre.

Given the relatively small population increase generated by the proposed hi – tech home business estate and the recreational facilities to be provided on site it is considered that it will have a minimal impact upon the availability of recreational facilities to the wider population.

Primary Schools

The following primary schools exist within close vicinity to the site:

- Terrigal Public School is running close to capacity, although the potential exists for the addition of demountables should pupil numbers dictate;
- Our Lady of the Sea Primary School which currently has places available, particularly after recent expansions of Kindergarten and Year 1 capacities; and
- Central Coast Grammar School has plans lodged with Council for expansion of existing facilities to accommodate another 150 pupils.

The proposed hi – tech home business estate has the potential to add approximately 33 primary school pupils to the area. It appears feasible that local primary schools will be able to absorb this growth in numbers over the period of years that it takes to complete the development of the site in the manner proposed.

Secondary and Tertiary Education

The following secondary schools exist within close vicinity to the site:

- Terrigal High School which has capacity constraints if significant growth in student numbers were to be accommodated;
- Central Coast Grammar School which has plans to grow by approximately 150 pupils. It also presently has additional capacity available.

The proposed hi – tech home business estate has the potential to create demand for a total of 23 additional high school places. It appears likely that this demand will be able to be absorbed readily by the current school system over

the time in which it takes for the site to become fully established. As Terrigal is a mature urban system, there are not other major growth areas placing additional pressures on the school system. However, it is recommended that local schools be kept informed of the development of the site such that they can incorporate population growth into their planning.

A number of tertiary education facilities exist within the surrounding area including the Central Coast Campuses, Ourimbah Campus which has an associated with the University of Newcastle, and TAFE facilities within Gosford and Wyong.

Aged Care Facilities

The hi – tech home business estate concept is aimed exclusively at people of working age who will be self sufficient and willing to make full use of the facilities proposed. In this regards, it is not anticipated that Parkside@Terrigal will place any great demands on aged care providers within the Terrigal area. However, there are a number of retirement villages and nursing home facilities within the Erina/Terrigal area.

Childcare Facilities

It has been estimated that an additional 21 children of childcare age may be introduced to the area following the development of the site in the manner proposed. There are a number of childcare facilities available within the vicinity of the site. Three major providers within the area were contacted during the preparation of the Social Impact Assessment, namely:

- Little Miracles (Michaela Road, Terrigal) which opened in June 2007 and is presently only running at approximately 60% capacity;
- CFK Childcare Centre (Havenview Road, Terrigal) which has capacity for at least 10 additional children; and
- Kids Academy (Erina Heights) which is a 76 place child care facility presently under construction. Whilst bookings interests are high, the centre has places remaining.

Whilst there are numerous other centres within the area, it has been demonstrated that capacity exists within these centres alone. Additionally, it is proposed to include a child care facility within the site.

3.6

LANDHOLDER EXPECTATIONS

The proposed development of the hi – tech home business estate has the potential to impact upon the expectations of surrounding land holders. There is a need to address both controlling the impacts of development on its neighbours, as well as addressing future development expectations of owners of similarly zoned land within the immediate locality.

3.6.1 *Ongoing Operations and Impacts*

As with any form of development, the proposed hi – tech home business estate has the potential to impact upon the residential amenity of surrounding areas. In order to ensure that the potential impacts are consistent with community expectations, it is proposed to put in place a Community Title Management Plan which will be enforceable by the Community Association. This will ensure that the site is managed and operated in the manner being proposed. This will provide surrounding residents with confidence that the local residential amenity will not be significantly impacted.

3.6.2 *Increased Development Pressure*

There are three pockets of proposed similarly zoned (E2 “Environmental Management”) land with the Terrigal to Erina urban corridor. This corridor is generally bound by Terrigal Drive to the north and the Kincumber Reserve to the south and is shown within *Figure 3.1*. This figure also identifies the areas of land within this corridor to be zoned E2, these are:

- the site;
- land to the east of Mobbs Road, bound by Terrigal Drive; and
- land bound by Karalta Road to the north and Kincumber Reserve to the south.

The site is the best placed within the locality for residential development of any type (including the proposed hi – tech home business estate) due to it possessing the following characteristics:

- larger allotments all within single landholder control. Single landholder control allows for greater degree of certainty when undertaking land release suitability assessments and environmental studies;
- sufficient area of land on site which is able to be developed with minimal environmental impacts and in an economically responsible manner;
- areas of land of high ecological and scenic value are able to be preserved and dedicated to the COSS;
- site is readily accessible by the existing road system with no major upgrades required; and
- it has been subject to rigorous environmental, economic and social impact assessment.



Legend

- Site
- Karalta Road Site
- Terrigal Drive Site

Source:

© 2010 Google Maps

R0		17-12-10	JD
R1	Preliminary Issue	28-01-11	JD
Suffix	Revisions	Date	Init

Client:	Crighton Properties Pty Ltd		
Project:	Parkside Terrigal Rezoning Report - Local Environmental Study		
Drawing No:	0050265h_LES_Nov10_C012_R1.cdr		
Date:	17/12/2010	Drawing size:	A4
Drawn by:	JD	Reviewed by:	AA
Scale:	Refer to Scale Bar		



0 200 400m

Maps and figures contained within this document may be based on third party data, may not be to scale and is intended for use as a guide only. ERM does not warrant the accuracy of any such maps or figures.

Figure 3.1

E2 Environmental Conservation Land within the Terrigal to Erina Urban Corridor

Environmental Resources Management Australia Pty Ltd
53 Bonville Avenue, Thornton, NSW 2322
Telephone +61 2 4964 2150

The Karalta Road site is considered unsuitable for any type of higher density residential development as it is in highly fragmented ownership (in the vicinity of 30 lots). As the site is densely vegetated, any form of development would potentially result in an unacceptable level of environmental degradation. Due to the size of the site, it may be difficult to balance the need to develop the site in a manner that is economically viable, with the principles of ecologically sustainable development. It is therefore unlikely that development of the site for the purposes of a hi – tech home business estate will increase neighbouring landholders expectations.

The Terrigal Drive site is also unsuitable for any type of higher density residential development. Again, the site is within a highly fragmented ownership pattern, with the only large holding containing a manufactured home estate, further compounding site ownership issues.

It is therefore concluded that development of the site for the purposes of higher density residential uses should not validly and unduly increase development expectations of landholders within the Terrigal to Erina urban corridor.

As stated throughout this LES, the proposal would be the first development of its kind in Australia. Based on this, the proposed hi – tech home business estate is considered to be a pilot project which would require monitoring to gauge its success. The basis for a Community Title Management and Monitoring Plan has been devised and is discussed in *Chapter 6*. The monitoring of the economic success of the project will be undertaken in cooperation by Crighton Properties, the University of Sydney and the University of Newcastle. Until such time as monitoring is well advanced and appropriate conclusions can be drawn, it would be inappropriate to use the guise of a hi – tech home business estate to develop multiple sites within the LGA.

4.1 SOILS AND GEOTECHNICAL

4.1.1 *Introduction*

A geotechnical investigation of the site was carried out by Coffey Geotechnics Pty Ltd. This is provided as *Annex K*, with a summary being provided below. The purpose of the report was to assess the suitability of the site for proposed residential subdivision with respect to risk of slope instability. The assessment provided was based on the following basic methodology:

- a review of relevant geology maps and previous reports;
- observations of surface features on the property and surrounding area; and
- twenty test pits excavated across the site.

The results of this were used to provide concise outcomes as to the geotechnical constraints inherent within the site.

Additional work has also been undertaken to assess the compliance of the proposed development against the principles set out in DCP 122- Cut and Fill. A report was prepared by Crighton Properties in association with Peter Andrews and Associates (hereafter referred to as the Andrews report) and is discussed in *Section 4.1.3* and a full copy of the report is provided at *Annex R*.

4.1.2 *Site Description*

The Gosford 1:25000 Geological Map indicates that the site is underlain by rocks belonging to the Terrigal Formation of the Narrabeen Group, consisting of interbedded lithic sandstone and siltstone. Based on site surface features and the subsurface profile, the site has been divided into three separate geological Land Areas (LA). The limits and descriptions of these areas are shown within *Section 6.3* of *Annex K*.

4.1.3 *Slope Risk Assessment*

The Coffey report indicates that deep seated, large scale slope instability is not expected to occur naturally due to the shallow depth to weathered bedrock and generally good drainage. Principal hazards that may exist that could potentially impact on a proposed development would include slumping of colluvium in existing steeper slopes, or deeper slumping that could be mobilised by excessively deep or steep cuttings and deep filling.

A geotechnical risk assessment carried out concluded that development of the site is feasible from a slope risk viewpoint. Whilst subdivision of the site may increase the risk of instability it was concluded that this risk would not exceed the risks assessed within the report subject to a number of recommendations being implemented. These relate to:

- road excavations;
- fill embankments;
- building platforms;
- retaining walls; and
- drainage and sewage disposal.

The Andrew report recommends 'in principle' the likely design solution which could be employed on the site to address the areas of the site with severe slope. The report provides drawings to illustrate examples of the types of approach that could be made to achieve compliance with DCP 122. The two key approaches suggested in the report to achieve compliance with DCP 122 are:

- Architectural and Landscape Design Guidelines drafted and enforced by the mechanism of Community Title; and
- Civil works solutions to establish site levels, carried out at the time of subdivision; including retaining structures.

The report concludes that opportunities to address slope considerations on the site are available at the subdivision and individual house level, with multiple options available for the proposal to achieve compliance with DCP 122.

There would be a requirement for more detailed investigation of these options at Construction Certificate stage when specific construction details are known.

4.2 FLORA AND FAUNA

4.2.1 Introduction

Amendments to proposal

The proposed footprint of the Concept Plan has been amended to overcome concerns raised by DECCW regarding several aspects of the proposal, including that it does not achieve the "improve or maintain existing biodiversity" benchmark, development in the vicinity of a rainforest and potential fragmentation of management of a riparian zone. The amended Concept Plan is shown at *Figure 5.2* and includes the following changes:

- The redesign of the perimeter road from the main entrance to exclude it from the core riparian and buffer zones in the west;
- The removal of all proposed development to the south and southwest of the perimeter road;
- The removal of all residential lots along the far western boundary of the site. It should be noted however that it is still proposed to locate the community facilities to the north, beyond the rainforest buffer;
- Ensuring a fifty metre buffer area around the designated Rainforest vegetation along the western riparian corridor;
- Reducing the loss of on-site vegetation from 10.4 hectares to 7.6 hectares; and
- Increasing the proposed dedication of land to Council (under COSS) from 18 hectares to 27.28 hectares (subject to Council's willingness to accept this additional dedication).

To maintain the development yield of the site which is critical to the feasibility of the project, it is proposed to offset the lost urban areas in two locations:

1. By substituting the central park area on the ridge (originally proposed to be retained as a park) for urban development. This area was identified by DECCW as having lower biodiversity value than other areas on site which were previously proposed for development.
2. By extending the development envelope in the far east of the site into the predominately cleared land zoned Environmental 7(a) Conservation and Scenic Protection.

It is now proposed to develop only 17.38 hectares or 32% of the 53.53 hectare Parkside site. The remainder of the site will either be dedicated to Council or held under a private conservation zone. Further, the Community Association will be charged with the ongoing rehabilitation and management of the conservation areas. As a result of the re-configuration of proposed urban areas, the ratio of vegetation offset to be provided on site has been increased from 2.7:1 to 4.3:1.

Ecological Site Assessment

An ecological site assessment (ESA) was undertaken by the Conacher Environmental Group (see *Annex C*). This is referred to as the "ecological site assessment". The report provides details on the vegetation, fauna and habitat present on the site in relation of the local area, as well as providing details on the likely impacts of the proposal upon threatened species, vegetation and habitats within the local area.

The ecological site assessment is provided as a range of documents, principally an information report, accompanied by the following:

- flora and fauna survey report;
- threatened biodiversity assessment (seven part tests);
- threatened species recovery plans assessment;
- hollow bearing tree survey;
- Environmental Protection and Biodiversity Conservation Act assessment;
- SEPP 19 – Bushland in Urban Area assessment;
- riparian and water course issues and management plan; and
- management plan for the land proposed to be transferred to public reserve as part of the Coastal Open Space System; and

The ecological site assessment and the adequacy of the proposed biodiversity offsets were peer reviewed by Cumberland Ecology (September 2010) and amended in accordance with the recommendations contained within the peer review report which is reproduced in *Annex V*. Cumberland Ecology has additionally undertaken an assessment of the revised layout of the proposed Parkside development (refer to *Annex W*).

4.2.2 Survey Results

During site surveys, the following vegetation communities were identified on site, as shown within the ecological site assessment (*Annex C*) and illustrated in *Figure 4.1* and as described below:

- Coastal Warm Temperate Rainforest within the more sheltered sections of the drainage lines which corresponds with the Lowland Rainforest Endangered Ecological Community (EEC) as described within the *Threatened Species Conservation Act 1995*;
- Coastal Narrabeen Moist Forest which predominately occurs within the drainage lines;
- Narrabeen Coastal Blackbutt Forest which extends throughout the slopes and ridges of the central and southern parts of the site;
- Disturbed/Regeneration Open Forest of the central slopes; and
- Grassland with Scattered Trees which occur throughout the site with the exception of the southern part of the site.



Figure 4.1

Vegetation Communities

Legend

- Site
- Lowland Rainforest (EEC)
- Riparian Areas
- Remnant Forest (Weed Understorey)
- Acacia Forest (Weed Understorey)
- Disturbed Forest (Cleared Understorey)
- Cleared Land (Low Condition)

Notes:

1. Subject site boundary subject to final survey.
2. Survey locations are approximate and have not been fixed by land survey. Plan for indicative purposes only. Not for detailed measurement.

Source:

Conacher Environmental Group December 2010

R0		15-12-10	JD
R1	Preliminary Issue	28-01-11	JD
Suffix	Revisions	Date	Init

Client:	Crighton Properties Pty Ltd		
Project:	Parkside Terrigal Rezoning Report - Local Environmental Study		
Drawing No:	0050265h_LES_Nov10_C005_R1.cdr		
Date:	28/01/2011	Drawing size:	A4
Drawn by:	JD	Reviewed by:	AA
Scale:	Refer to Scale Bar		



Maps and figures contained within this document may be based on third party data, may not be to scale and is intended for use as a guide only. ERM does not warrant the accuracy of any such maps or figures.

Environmental Resources Management Australia Pty Ltd
53 Bonville Avenue, Thornton, NSW 2322
Telephone +61 2 4964 2150



- No threatened flora species were identified on the site.

The following threatened fauna species were observed on site during surveys:

- Little Eagle;
- Little Lorikeet;
- Powerful Owl;
- Sooty Owl;
- Yellow Bellied Glider;
- Grey Headed Flying Fox;
- Eastern Bentwing Bat;
- Eastern False Pipistrelle;
- Greater Broad Nosed Bat;
- Little Bentwing Bat;
- Yellow Bellied Sheath-tail Bat; and
- Eastern Freetail Bat.

The forest habitats which form the principal habitat areas for these species will be retained and conserved.

The development proposal and the biodiversity conservation proposals have been considered in relation to the improvement or maintenance of biodiversity values. It was concluded that the proposal would not result in a significant negative impact on threatened biodiversity and that an improvement and maintenance of biodiversity values would be achieved.

4.2.3 *Development and Biodiversity Conservation Proposals*

Following the detailed ecological surveys and site analysis a variety of biodiversity conservation outcomes were incorporated into the proposal to mitigate against any impacts upon the identified Endangered Ecological Community and Threatened Species. The biodiversity conservation components incorporated into the project include:

- retention and restoration of riparian vegetation;
- retention of areas of endangered ecological communities;
- retention and protection of areas of vegetation in good condition with high biodiversity values;

- retention of habitat linkages to conservation reserves (Kincumba Mountain Reserve);
- retention of habitat for threatened fauna species;
- implementation of a Water Quality Management Strategy;
- preparation of an Ecological Site Management Plan; and
- transfer of land to public reserve as part of the Coastal Open Space System.

The full extent of the implementation of these measures is provided within Section 1.3 of the ecological site assessment contained within *Annex C*.

Adequacy of Biodiversity Offsets

An independent assessment of the adequacy of the proposed biodiversity offsets against the DECCW principles was undertaken by Cumberland Ecology (see *Annex D*), the foremost biodiversity principle being that impacts upon areas of ecological value must firstly be avoided then mitigated where total avoidance is not possible. Finally impacts to developments should be offset using compensatory measures if the two other components of the biodiversity offset hierarchy do not appropriately offset development impacts.

Parkside@Terrigal incorporates the following avoidance, mitigation and compensation measures:

- Avoidance

The current design is located primarily within the most disturbed portions of the subject lands, thereby providing for the retention of key vegetation and habitat features on site, including the conservation of the Lowland Rainforest EEC. The proposed development footprint has been reduced in the south eastern and south western portions of the site, which will assist in maintaining a wildlife corridor along the southern extent of the subject lands. The wildlife corridors on the subject lands will facilitate the movement of fauna across Kincurnber Mountain Reserve and through riparian areas. The footprint also allows for the retention of a range of habitat features suitable for a suite of fauna species, including hollow-bearing trees and riparian areas.

- Mitigation

The primary mitigation measure for the Parkside project is the management and rehabilitation of a number of areas of retained vegetation. The riparian areas on the site, including a patch of Lowland Rainforest EEC will be retained within non-developable areas of the project. A vegetation management plan has been prepared (refer to *Annex C*) to increase the biodiversity values of the riparian areas. The rehabilitation of this land will add additional forest to the areas under conservation.

- Compensation:

Compensatory measures for Parkside@Terrigal supplement the avoidance and mitigation measures and are being used to offset the loss of biodiversity values from the development footprint. The compensatory offset proposed is the dedication of approximately 27.28ha of land in the southern portion of the subject lands to Council. The 27.28ha of land to be dedicated to Council is to become part of the Gosford Coastal Open Space System (COSS). The transfer of the land into the Gosford COSS is considered to constitute greater protection of the vegetation and habitats. Dedication of 27.28ha of the subject lands to the Gosford COSS will significantly add to the patch size of the vegetation in Kincumber Mountain Reserve.

An assessment against each of the DECCW offset principles is provided in *Annex D*. The assessment concluded that the proposed ecological offsets:

- address the loss of vegetation from the proposed development;
- provides a sustainable development outcome that provides habitat for threatened species;
- adds to the conservation areas associated with Kincumber Mountain Reserve;
- maintains habitat linkages with sizeable areas of forest on Kincumber Reserve;
- conserves in situ substantial areas of forest; and
- is clearly consistent with the latest principles for offsetting of DECCW.

4.2.4

Conclusions

Based on the detailed field surveys and assessment provided within the ecological site assessment it is concluded that:

- the majority of the site is of reduced quality for locally occurring flora and fauna species due to a history of disturbance;
- twelve threatened fauna species were observed on the site. Habitat for these species is proposed to be retained on the site and in adjoining reserve areas;
- one Endangered Ecological Community, Lowland Rainforest, is present on the site;
- no threatened flora species or endangered populations were observed on the site;

- the proposal includes the retention, protection and restoration of higher quality habitats within riparian areas to offset and minimize impacts upon locally occurring flora and fauna;
- a total of 27.28 hectares of land will be transferred to council to increase the area of the coastal open space land and extent of Kincumba Mountain Reserve;
- a detailed Ecological Site Management Plan should be prepared to detail management requirements for retained vegetation and fauna habitats and accompany any proposal for development;
- that the proposed development is not likely to have a significant effect upon threatened species, endangered ecological communities or their habitats;
- a referral of this project to the Commonwealth Department of Sustainability, Environment, Water, Population and Communities is not required;
- it will be necessary to amend the concept plan portrayed in Figure 5 of the ecological site assessment to accurately align with the recommended residual “Development Area” as identified within Figure 3; and
- the proposal will result in an improvement or maintenance of biodiversity values as a result of the various biodiversity conservation proposals to be implemented as part of the rezoning proposal (these are provided as appendices within *Annex C* to this LES).

4.3 WATER CYCLE MANAGEMENT

4.3.1 Introduction

Given the site’s location within the heavily urbanised Terrigal Lagoon Catchment, the issue of water quality management is considered critical. A preliminary water cycle management plan was developed by Cardno Pty Ltd in 2005 (see *Annex G*). This report examined two elements, the first was the recycling of domestic water throughout the proposed hi – tech home business estate. This was discussed within *Section 3.5.1* and deals primarily with measures to reduce pressure on existing infrastructure services and water demand. The second element was the management of urban stormwater, which, if left unchecked, could cause downstream environmental impacts such as increased flood levels and decreased runoff water quality. To address this issue the Cardno report has been supplemented by a report prepared recently by Cahill and Cameron Pty Ltd (*Annex P*) which provides a preliminary stormwater report, outlining proposed water quantity and quantity measures to be implemented.

4.3.2

Stormwater Quantity Management

A trunk drainage network has already been constructed downstream to convey runoff expected from the fully urbanised catchment, including the site. The site has an existing redundant semi – offline detention basin inside the northern boundary, adjacent to Kings Avenue (*Photograph 5*). To ensure that the post development flows from the site are not exacerbated as a result of the development, for all events up to and including to 100 year average recurrence interval (ARI) rainfall event, the existing detention basin will be modified by constructing two small supplementary offline basins upstream of the primary basin. Modelling was undertaken to reflect the developed site with the proposed basin arrangement to determine the impact of the basins on the runoff regime. This modelling indicated that within the effected catchment, the 100 year ARI in the primary basin was estimated to be 0.4m higher than would currently occur in the same event. The corresponding combined storage volume required within all three basins would be approximately 6,350m³. An overflow weir needs to be constructed adjacent to Kings Avenue on the northern face of the primary basin with an additional 1,900m³ (being provided as free board storage).

The modelling results indicate that the construction of the proposed detention basins (see *Figures 4.2a and 4.2b*) will reduce the flows from the developed site to less than existing for all events up to the 100 year ARI, except for the 5 year ARI event which was found to be slightly higher. The discharge control pit will be required to be subject to further design to ensure no net increase for all ARI events. It should also be noted that no allowance has been made for any water re-use within the development as outlined within *Section 3.5.1*. It is intended that some of the runoff will be captured and reused on site in accordance with water sensitive urban design principles. This will further reduce flows into the downstream stormwater system.

4.3.3

Stormwater Quality Management

As detailed within *Annex G* and *Section 3.5.2*, the comprehensive water cycle management plan identifies strategies such as wastewater effluent recycling, stormwater collection and reuse and the implementation of water quality measures to treat stormwater runoff. The Cameron and Cahill report (*Annex P*) provides preliminary modelling utilising the “Model for Urban Stormwater Conceptualisation” (MUSIC) program which simulates both the quality of runoff from a catchment and the effects of a wide range of treatment facilities.

The basic stormwater management system modelled is a treatment train which utilises a range of measures to achieve the required goal of limiting pollutant export to pre development levels. This treatment train includes gross pollutant traps, rainwater tanks, buffer strips, grass swales, bioretention trenches and a constructed wetland.



PROVIDE OVERFLOW SPILLWAY
BENEATH BOARDWALK TO CONVEY
RUNOFF IN EXCESS OF 100-yr ARI
DESIGN STORM TO DOWNSIDE
STORMWATER SYSTEM

PROVIDE GENTLE BATTERS OF
1V:1.5H WHERE INDICATED TO
ENCOURAGE MACROPHYTE GROWTH
& WILDLIFE HABITAT. WHILST ALSO
ENABLING PASSIVE RECREATION
ACTIVITIES & SAFE EGRESS ON
FRINGE OF BASIN

RETAIN AREA AS REQUIRED TO
PROVIDE ADDITIONAL STORAGE
VOLUME BENEATH PROPOSED DECK
OF COMMUNITY CENTRE AS WELL
AS IMPROVING AESTHETIC AMENITY
OF COMMUNITY PRECINCT

PROVIDE GENTLE BATTERS OF
1V:1.5H WHERE INDICATED TO
ENCOURAGE MACROPHYTE GROWTH
& WILDLIFE HABITAT. WHILST ALSO
ENABLING PASSIVE RECREATION
ACTIVITIES & SAFE EGRESS ON
FRINGE OF BASIN

CONSTRUCT ROCK RETAINING WALL
BENEATH BOARDWALK TO CONVEY
RUNOFF IN EXCESS OF 100-yr ARI
DESIGN STORM TO DOWNSIDE
STORMWATER SYSTEM

CONSTRUCT DISCHARGE CONTROL PIT
WITHIN NORTHERN EMBANKMENT TO
RETARD DEVELOPED FLOWS TO
WITHIN PRE-DEVELOPED LIMITS

CONSTRUCT EARTH EMBANKMENT AS
INDICATED TO FORM PERMANENT
WATERCOURSE ADJACENT TO
EXISTING WATERCOURSE & RIPARIAN
VEGETATION

MAINTAIN EXISTING RIPARIAN CORRIDOR
& WATERCOURSE ADJACENT TO PROPOSED
ROAD AND CONSTRUCTED BASIN

BASIN 1	
WETLAND VOLUME PROVIDED =	1550 m ³
OSD VOLUME PROVIDED =	5550 m ³
FREEBOARD VOLUME PROVIDED =	1900 m ³
TOTAL BASIN VOLUME =	9000 m ³
PERMANENT WATER LEVEL =	RL 16.00
OSD TOP WATER LEVEL =	RL 17.50
TOP OF BANK LEVEL =	RL 18.00
PRE-DEVELOPMENT Q ₁₀₀ FLOW =	12.7m ³ /s
OSD BASIN POST-DEV Q ₁₀₀ FLOW =	15.0m ³ /s
OSD BASIN POST-DEV Q ₁₀₀ FLOW =	12.0m ³ /s

Source:
Cahill and Cameron - 2003ALL

Suffix: Revisors: Date: Int:
R0 Preliminary Issue 17-12-10 JD

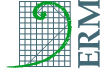
Figure 4.2a
Onsite Detention/Constructed
Wetland Layout Plan

Client: Crighton Properties Pty Ltd
Project: Parkside Terrigal
Planning Proposal
Local Environmental Study
Drawing No: 0502055H, LES_Nov10_CO10_R0.cdr
Date: 17/12/2010 Drawing size: A3
Drawn by: JD Reviewed by: AA
Scale: Refer to Scale Bar



Notes and figures contained within this document may be based on third party data, may not be to scale and is intended for use as a guide only. ERM does not warrant the accuracy of any such maps or figures.

Environmental Resources Management Australia Pty Ltd
53 Bonville Avenue Thornton, NSW 2222
Telephone +61 2 4984 2150



BASIN 1

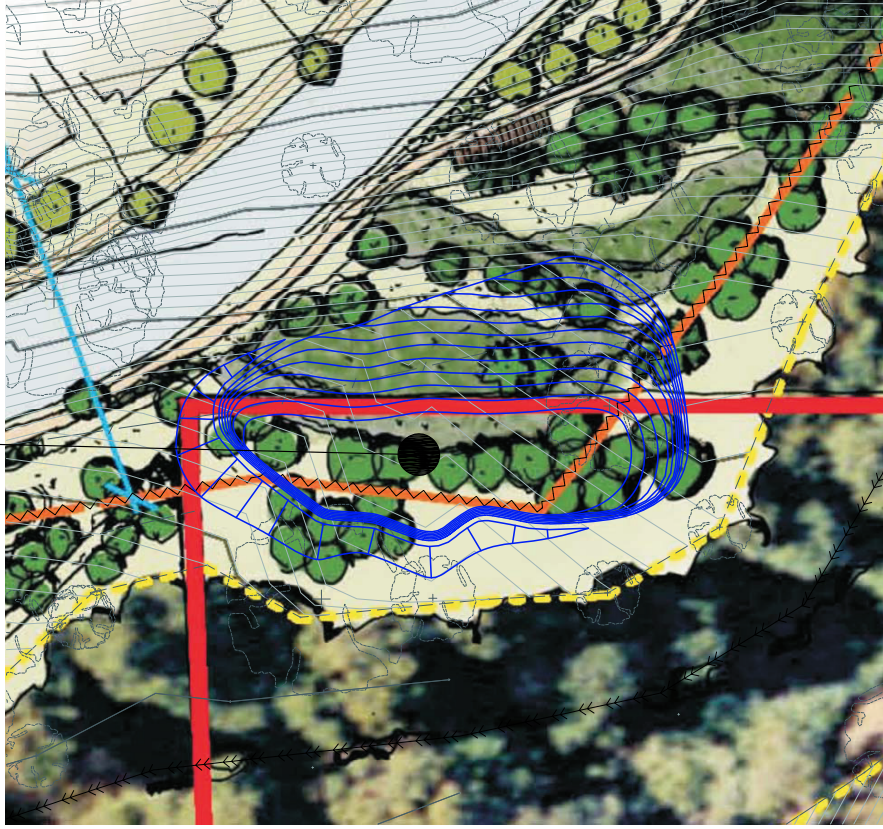


CONSTRUCT OFFLINE WET BASIN TO
PROVIDE SUPPLEMENTARY OSD VOLUME
& FOR WATER QUALITY PRIOR TO RUNOFF
FROM COMMUNITY RECREATION AREA ENTERING
DOWNSTREAM WATERCOURSE

BASIN 2

WETLAND VOLUME PROVIDED =	75 m ³
OSD VOLUME PROVIDED =	240 m ³
FREEBOARD VOLUME PROVIDED =	100 m ³
TOTAL BASIN VOLUME =	415 m ³
PERMANENT WATER LEVEL =	RL 18.20
OSD TOP WATER LEVEL =	RL 19.40
TOP OF BANK LEVEL =	RL 19.70

BASIN 2



CONSTRUCT OFFLINE DRY BASIN TO
PROVIDE SUPPLEMENTARY OSD VOLUME
& FOR WATER QUALITY PRIOR TO RUNOFF
FROM RESIDENTIAL LOTS & ROAD RESERVE
ENTERING DOWNSTREAM WATERCOURSE

BASIN 3

WETLAND VOLUME PROVIDED =	NIL
OSD VOLUME PROVIDED =	560 m ³
FREEBOARD VOLUME PROVIDED =	NIL
TOTAL BASIN VOLUME =	560 m ³
BASIN INVERT LEVEL =	RL 22.20
OSD TOP WATER LEVEL =	RL 23.40
SPILLWAY LEVEL =	RL 23.45

BASIN 3

Source:
Cahill and Cameron

Suffix	Revisions	Date	Int
R0	Preliminary Issue	17-12-10	JD

Figure 4.2b
Supplementary On-Site Detention
Basins Layout Plan

Client:	Crighton Properties Pty Ltd
Project:	Parkside Terrigal Residential Development Local Environmental Study
Drawing No:	0502055H_LES_Nov10_C011_R0.cdr
Date:	17/12/2010
Drawn by:	JD
Reviewed by:	AA
Scale:	Refer to Scale Bar

0 5 10 15m

Notes and figures contained within this document may be based on third party data, may not be to scale and is intended for use as a guide only. ERM does not warrant the accuracy of any such maps or figures.

Environmental Resources Management Australia Pty Ltd
53 Bonville Avenue Thornton, NSW 2222
Telephone +61 2 4984 2150



The guidelines provided by Council within DCP 165 – Water Cycle Management, specifies the following post development pollution treatment rates for sites draining into coastal catchments:

- Suspended solids – 80% retention;
- Total phosphorus – 45% retention;
- Total nitrogen – 45% retention;
- Gross pollutants – retention of litter greater than 40mm in size for flows up to 25% of the 1 year ARI peak flows; and
- No oil or grease to be visible downstream of site for flows up to 25% of the 1 year ARI peak flow.

The MUSIC model established a baseline scenario of the mean annual loads of the aforementioned loads, breaking the site up into a combination of urban, forested and rural residential catchments, based on the basic concept plan developed for the site. The established baseline dated was used to model a series of treatment measures. *Table 4.1* shows the results of water quality modelling based on the treatment train development within *Annex P*.

Table 4.1 **MUSIC Modelling**

Parameter	% Reduction
Total Suspended Solids	87.1
Total Phosphorus	69.7
Total Nitrogen	44.8
Gross Pollutants	100

These results demonstrate that with the implementation of the water cycle management plan (including stormwater measures outlined within *Annex G*), post development loads into the downstream receiving waters will be minimized in accordance with Council’s requirements.

4.3.4 **Recommendations**

The following key two recommendations are proposed to be adopted:

- The construction of three independent on – site detention basins within the community precincts of the site to limit post developed flows to within pre developed levels for all storm events up to an including the 100 year ARI event; and
- The implementation of both lot and community based stormwater quality measures in a treatment train approach to limit post developed pollutant loads to allowable levels.

4.4

BUSHFIRE

4.4.1

Introduction

A bushfire hazard assessment was undertaken by Conacher Environmental Group. The report has been prepared to provide details of the characteristics of the site and adjoining areas in relation to existing bushfire hazard and demonstrate how the site can be developed balancing the implementation of adequate bushfire planning provisions (including asset protection zones, fuel management zones, lot configuration, road orientation and provision of fire trails) with other physical site constraints. The report has been provided as *Annex I*. The stated objectives of this report are to:

- i) Address the relevant requirements of Planning for Bushfire Protection (Rural Fire Service, 2006);
- ii) Identify if the development complies with the aims and objectives of Planning for Bushfire Protection;
- iii) Prepare a report that supplies the relevant information for the Rural Fire Service (RFS) and Council;
- iv) Provide advice on mitigation measures including the provision of asset protection zones and construction standards in accordance with "Planning for Bushfire Protection" (RFS 2006); and
- v) Advise on specific fire management issues.

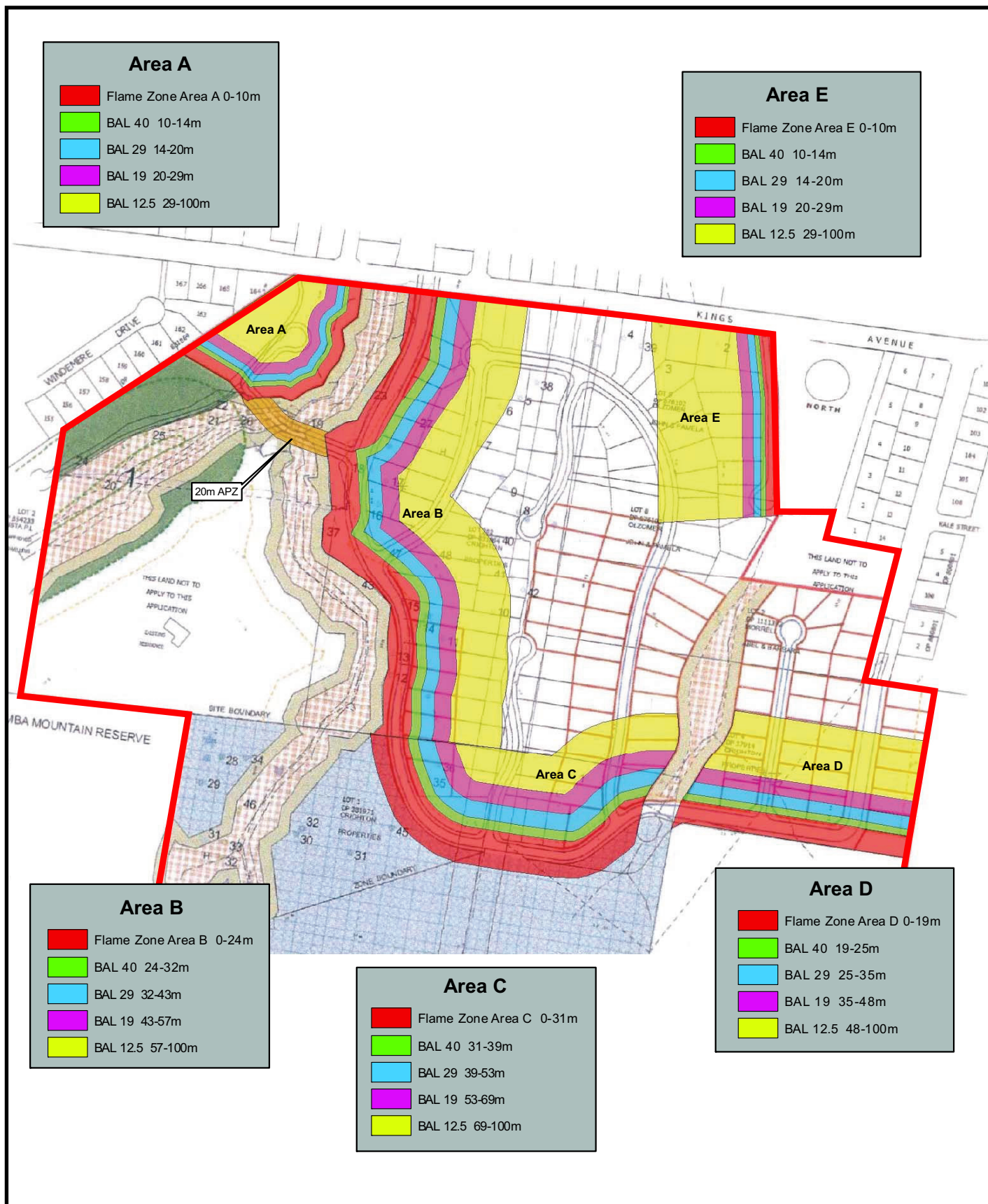
4.4.2

Bushfire Attack Assessment

Within the bushfire hazard assessment, the site was separated into various areas. This was based on a preliminary concept plan. These areas are described below, with the extent of each area shown within *Figure 4.3*.

Area A

- Area of future commercial centre located in north west part of site;
- Adjoined to south by patch of rainforest and to the east by riparian forest with water quality control measures to be upgraded;
- Adjoined by existing residential areas to the north and west;
- No residential dwellings are proposed within Area A.



Legend
 Site

Source:
 Conacher Environmental Group - Dwg
 No.10050 29/11/2010

R0		15-12-10	JD
R1	Preliminary Issue	28-01-11	JD
Suffix	Revisions	Date	Init

Client:	Crighton Properties Pty Ltd
Project:	Parkside Terrigal Rezoning Report - Local Environmental Study
Drawing No:	0050265h_LES_Nov10_C006_R1.cdr
Date:	28/01/2011
Drawn by:	JD
Scale:	Refer to Scale Bar

0 50 100m

Maps and figures contained within this document may be based on third party data, may not be to scale and is intended for use as a guide only. ERM does not warrant the accuracy of any such maps or figures.

Figure 4.3
Bushfire Hazard Assessment

Environmental Resources Management Australia Pty Ltd
 53 Bonville Avenue, Thornton, NSW 2322
 Telephone +61 2 4964 2150



Area B

- Future residential lots facing riparian vegetation along central drainage line. Riparian vegetation to be retained and managed for weed control natural regeneration and biodiversity values.

Area C

- Future residential lots facing future public reserve to the south. Separated from Area D by drainage reserve which will incorporate water quality control measures and managed land with a shared cycleway/pathway running through the site.

Area D

- Future residential lots with public reserve to the south. Areas of this part of the public reserve will be managed to regenerate to a forest vegetation which will provide a bushfire threat to future lots in Area D.

Area E

- Future residential lots to the west of the existing drainage reserve. This drainage reserve contains Melaleuca forest with managed grass areas and covers less than one hectare in area.

An assessment of the bushfire attack and required Asset Protection Zones and building construction levels (BAL) for each of these areas is provided in Tables 2.1 to 2.5 of the Bushfire Assessment Report (BAR) at *Annex I*.

The proposal is also required to be consistent with the objectives of Planning for Bushfire Protection. *Table 4.3* provides an assessment of the proposal with these objectives.

Table 4.2 *Planning for Bushfire Protection – Consistency with Objectives*

Objective	Proposal
1. Afford occupants of any building adequate protection from exposure to a bushfire.	Measures have been identified which can be implemented within the proposed development in regard to separation distance (APZ) and building construction to comply with required construction standards for the relevant bushfire attack levels. Some additional measures for the dwellings (gutter guards, fuel free gardens and external areas etc) are recommended to provide additional protection from the bushfire hazards within and adjoining the site..
2. Provide for a defendable space to be located around buildings.	A permanent APZ of minimum width as shown in Tables 2.1 to 2.5 and Figure 1 of the BAR will allow BAL 40 to 12.5 construction standards for the dwellings within 100 metres of vegetation posing a fire hazard throughout the development. This minimum width Asset Protection Zone is to be established as shown in Figure 1. These APZs are expected to be managed as an Inner Protection Area (IPA) in

Objective	Proposal
	accordance with PBP (RFS, 2006).
3. Provide appropriate separation between a hazard and buildings which in combination with other measures, prevent direct flame contact and material ignition.	The required separation distance between the proposed dwellings and the bushfire hazard has been determined using 2.4.2 of AS3959-2009. These separation distances (see Tables 2.1 to 2.5 in the BAR) will allow various construction standards for the proposed dwellings (AS3959-2009) depending on the slope gradient and the vegetation classification of the bushfire threat. These factors combined will provide appropriate separation between the hazard and buildings which will prevent direct flame contact and material ignition.
4. Ensure that safe operation access and egress for emergency service personnel and residents is available.	It is noted that multiple ingress/egress routes to the existing through roads are incorporated into the existing urban design. There is an entry/exit point located on Kings Avenue on the northern boundary of the site. There is also an entry/exit point proposed to connect to Belar Avenue on the eastern boundary of the site. This will ensure multi - path safe operational ingress for emergency services and also simultaneous safe egress for residents during an emergency. Roads within the proposed development will be constructed to meet the performance criteria for public roads identified on pages 20 and 21 of Planning for Bushfire Protection (RFS 2006).
5. Provide for ongoing management and maintenance of bushfire protection measures, including fuel loads in the APZ.	The owners/managers of the Community Association will undertake regular inspections and undertake management of any APZs within the property under their care. This will include maintenance of the vegetation and fuel loads within the minimum APZ areas as an IPA in accordance with Planning for Bushfire Protection. A management and funding mechanism through the Community Association will allow this to occur.
6. Ensure that utility services are adequate to meet the needs of fire fighters (and others assisting in bush fire fighting).	All lots are to be provided with urban utility services which will provide adequate requirements for fire fighters. The water supply arrangements including fire hydrant spacing, sizing and pressure are to be in compliance with AS 2419.1.2005.

4.4.3

Recommendations

The following key recommendations have been adopted in relation to reducing the potential loss of life and property by the impact of bushfire:

- establish and maintain Asset Protection Zones in accordance with *Tables 2.1 to 2.5 and Figure 1* of the BAR. These APZs are to be maintained as an Inner Protection Area as described in Planning for Bushfire Protection;
- dwellings constructed within the allotments are to be built to the appropriate construction Level (AS3959 – 1999) depending on the width of the Asset Protection Zone used;
- regular inspections and maintenance of the Asset Protection Zones within the site are to be undertaken by the owners/managers according to Planning for Bushfire Protection;
- provision of leaf barriers on gutters and roof valleys with a flammability index of less than 5 (AS1530.2) for dwellings constructed within areas requiring Levels 1, 2 or 3 Construction (AS3959 – 1999); and
- regular maintenance of garden/courtyard/cartilage areas to reduce fuel loads and removal or replacement of vegetation likely to promote the transmission of fire.

4.5

RIPARIAN AREAS AND WATER COURSES

During the ecological site assessment (*Annex C*) as presented within *Section 4.4*, a number of key riparian areas and water courses were identified as occurring on the site. *Photograph 5* shows the existing detention basin on the site and *Photograph 6* presents the typical riparian zone adjoining these water ways. These are presented as *Figure 2* within *Annex C*. The riparian zones of the central and western drainage lines are to be retained within a non developable area. The eastern drainage line is proposed to be retained and revegetated to compliment the riparian vegetation located downstream (off-site) to north of the areas proposed for restoration. This will become Community Land and be maintained by the Community Association. These proposals were discussed and agreed with representatives of the Department of Water and Energy (see correspondence in *Annex P*). It is important to note that this proposal is consistent with the discussion paper recently released by the Department of Planning which reviews options for the management of riparian corridors in urban areas. This discussion paper in turn refers to the publication “Affordable Management of Urban Riparian Areas” prepared by Ecological and MacroPlan in 2009 for the Local Government Shires Association. Both these publications promote the concept of riparian corridors being managed as Community Land by the Community Association under the Community Land Management Act 1989 as a cost effective and efficient management option to achieve positive outcomes for riparian areas in urban environments.



Photograph 5

Existing temporary retention basin.



Photograph 6

Water course running through western portion of site.

Photographs

Crighton Properties Pty Ltd - Parkside Terrigal Rezoning Report - Local Environmental Study

A core riparian zone and 10 metre buffer zone has been identified and a Vegetation Management Plan (Appendix 6 of *Annex C*) has been prepared. *Figure 4.4* provides a basic outline of this plan. Key measures and management strategies contained within the management plan include:

-
- proposed weeding activities to be carried out within retained vegetation of the riparian area and buffer zone;
- proposed regeneration activities to be carried out within and adjacent to retained vegetation;
- ongoing monitoring and maintenance activities to be carried out; and
- relevant sediment and erosion control measures.

Additionally, water quality management strategy has been developed (contained within the Vegetation Management Plan) to reduce the level of nutrients flowing into the aquatic areas of the site. This strategy includes the use of filtration swales, water quality treatment ponds and detention ponds integrated into the drainage system of areas to be developed. This will ensure protection of water quality both within aquatic habitats of the site and downstream areas. *Annex O* contains documentation relevant to the consultation undertaken with the Department of Water and Energy (DWE).

4.6

ABORIGINAL CULTURAL HERITAGE

An Aboriginal Heritage Assessment (ERM 2008) was undertaken in accordance with the provisions of the National Parks and Wildlife Act 1974 (NPW Act) and the Interim Community Consultation Requirements guidelines (DECC 2004) and is provided as *Annex F*. The conclusions and recommendations made within the report are based on desktop review of all available information, consultation with the Darkinjung Local Aboriginal Land Council and Guringai Tribal Link Aboriginal Corporation, and a field survey undertaken in July 2008.

RECOMMENDED SPECIES FOR RE-VEGETATION WITHIN BUFFER AREA

Scientific Name	Common Name
Trees	
<i>Acacia prominens</i>	Gosford Wattle
<i>Acmena smithii</i>	Lillypilly
<i>Alphitonia excelsa</i>	Red Ash
<i>Archontophoenix cunninghamiana</i>	Bangalow Palm
<i>Elaeocarpus reticulatus</i>	Blueberry Ash
<i>Livistona australis</i>	Cabbage Tree Palm
<i>Sloanea australis</i>	Maidens Blush
Shrubs	
<i>Acacia binervia</i>	Coast Myall
<i>Acacia suaveolens</i>	Sweet Scented Wattle
<i>Omalanthus populifolius</i>	Bleeding Heart
<i>Pittosporum revolutum</i>	Yellow Pittosporum
<i>Polyscias sambucifolia</i>	Elderberry Panax
<i>Wilkiea heugeliana</i>	Wilkiea
Groundcovers	
<i>Dianella caerulea</i> var. <i>producta</i>	Blue Flax Lily
<i>Dichelachne micrantha</i>	Short-hair Plume Grass
<i>Doodia aspera</i>	Rasp Fern
<i>Entolasia marginata</i>	Bordered Panic
<i>Gymnostachys anceps</i>	Settlers Flax
<i>Lepidosperma laterale</i>	Variable Sword-sedge

Note: Other native species present within the site can be added if required

10m Buffer Zone Works

Function

The 10m Buffer Zone to the riparian areas is to function as an area to buffer the impacts of adjacent development on the vegetation and habitats of the Riparian Zone, and to create areas of additional vegetation from existing vegetation.

Current Condition

The Buffer Zone is currently vegetated by either pasture grass or large trees with some riparian vegetation present. Details of the vegetation present are provided the annotated table accompanying.

Works within the 10m Vegetation Buffer Zone

- Existing natural vegetation to be retained in Buffer Zone.
- Grassed areas within the Vegetation Buffer Zone to be regenerated and replanted (where necessary). No mowing or slashing to be permitted.
- Existing vegetated areas within the Buffer Zone to retain trees and natural vegetation, supplementary grass/shrub plantings to be introduced.

Works within the 10m Bushfire Asset Protection Zone

- Nutrient control measures - grassed disposal areas, drainage swales etc. may be permitted only on an 'ingo' 'outgo' principle in order to maintain an APZ width of 10.0m.
- Supplementary plantings to Landscape and natural area where natural regeneration is occurring.
- Weed removal to be undertaken.

Riparian Profile (not to scale)

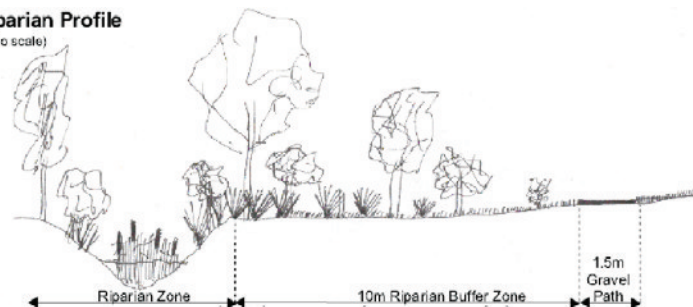


Figure 4.4

Buffer Zone Management Plan

Legend

- Riparian Buffer Zone (10m Wide)

Notes:

1. Subject site boundary subject to final survey.
2. Plan for indicative purposes only. Not for detailed measurement. Map based on survey by Cahill.

Source:

Conacher Environmental Group December 2010

Client: Crighton Properties Pty Ltd

Project: Parkside Terrigal Rezoning Report - Local Environmental Study

Drawing No: 0050265h_LES_Nov10_C007_R0.cdr

Date: 16/12/2010 Drawing size: A4

Drawn by: JD Reviewed by: AA

Scale: Refer to Scale Bar



0 50 100m

Maps and figures contained within this document may be based on third party data, may not be to scale and is intended for use as a guide only. ERM does not warrant the accuracy of any such maps or figures.

Environmental Resources Management Australia Pty Ltd
53 Bonville Avenue, Thornton, NSW 2322
Telephone +61 2 4964 2150

R0 Preliminary Issue 16-12-10 JD
Suffix Revisions Date Init



Survey Results

A targeted survey was carried out on 18 July 2008 with representatives from the Darkinjung Local Aboriginal Land Council and Guringai Tribal Link Aboriginal Corporation).

During the targeted survey, no sites were recorded. On potential scar tree was noted which was subject to further investigations.

The potential scar tree is a large Blackbutt within the north – western corner of the site. It contained a 3 the 6 metre long scar which has symmetrical sides and no evidence of machinery damage or fallen limbs. The tree did not show any obvious toe hold scars which would be expected for the Aboriginal people to reach the top of such a large scar during the bark removal process. The possibility of the deep scar having healed over these was also noted.

Further investigations on the age of the tree were undertaken by Advanced Treescape Consulting (contained as Annex C within *Annex F*). The tree was subsequently identified as being 150 to 200 years old, making it a sapling in the early 1800's and unlikely to be used for bark removal and/or canoe manufacture. Following additional consultation with the local Aboriginal community, it was concluded that this scar tree was not of Aboriginal origin and does not pose any constraint to the proposed development of the study area.

4.6.2 Consultation

Members of the Darkinjung Local Aboriginal Land Council and Guringai Tribal Link Aboriginal Corporation were provided with a draft copy of the Aboriginal heritage assessment for their review and comment. The responses received from both organisations were used to update the final report. General support was provided from these organizations subject to the adoption of certain recognised practices.

4.6.3 Conclusion and Recommendations

No sites or areas of cultural sensitivity have been recorded within the study area during the various field surveys. The proposed rezoning and subsequent development will not directly impact upon any areas of the known archaeological record and no further archaeological investigations are warranted.

The following recommendations are made in light of the outcomes of the Aboriginal Heritage Assessment:

- monitoring of clearing and initial excavation works within 40m of the western creek line should be undertaken by representatives of the local

Aboriginal community. This would not be undertaken as an archaeological activity;

- if during clearing or construction works Aboriginal artefacts are recovered, an immediate stop work protocol should be in place in the immediate vicinity of the artefact. A qualified archaeologist should at this time be contacted and the site recorded at its archaeological and cultural significance assessed. A section 87 permit and/or section 90 consent should be sought from DECC for the site prior to further development impact. Once recording has occurred any salvage can be undertaken and works (within minimal disruption) can continue; and
- in the unlikely event of discovery of skeletal material all works should cease and the police, relevant local Aboriginal community groups and a suitably experienced archaeologist or physical anthropologist should be contacted to assess the material before determining the correct management action.

4.7

TRAFFIC

A traffic impact statement for the development of the proposed hi – tech home business park estate was prepared by Mark Waugh Pty Ltd and is included as *Annex B*. This report covers the following:

- existing situation conditions including description of the local road network;
- traffic volumes available on the adjacent road network including traffic surveys that were conducted during investigations; and
- analysis using SIDRA traffic modelling of both existing (2008) and future (2018) conditions.

It is noted that the level of traffic generation from the development of the site has been determined utilising the Guide to Traffic Generating Developments (RTA). These guidelines contain no provisions for the precise nature of the development proposed, therefore the report is based on a number of quantitative judgements as outlined within *Section 4.4* and include:

“Based on the current planning for the development and the RTA guide for Traffic Generating Developments, the traffic flows associated with the proposed development would be in the region of 123 vehicles during the morning and afternoon peak periods and some 1305 vehicle movements per day.

The above traffic generation rates do not allow for any reduction in traffic flows due to the containment of traffic within the site due to the home business initiatives provided as part of the development. However, it can also be seen that the support staff who could be employed at the home based business will generate additional traffic over and above normal residential traffic flows. The applicant advises an expected home business participation rate of 75% and an approximate external employment rate of 1 full time position per home owner participant. Overall it is considered that the

possible reduction in external traffic movements due to the home based work will be balanced by additional traffic attracted to the site as part of the support staff."

Based on these assumptions, the following conclusions were reached with regards to impacts arising from the proposed hi – tech home business estate on the existing traffic network:

- the additional traffic generated by the development can be accommodated on the local road network and the local roads will remain within their road capacity limits;
- based on the capacity of the local road network (including Terrigal Drive) and operation assessment, no mitigation or augmentation measures on the adjacent road network are required to accommodate the potential traffic generated by the proposal; and
- with the provision of support facilities for the home based business the impact upon the greater regional and metropolitan road network is likely to have a net reduction in traffic movements.

With regards to internal traffic movements, the report states that the site presents a significant opportunity to influence travel behaviour through the application of alternate employment oriented development. Key features of the development include:

- local on – site employment and support facilities;
- pedestrian movement focus;
- possible integration of the on – site pedestrian and cycling network with external facilities developed in conjunction with Council; and
- application of accepted principles for transit oriented development including mixed land use, direct pedestrian and cycle links.

The complete traffic report, including methodology, investigation of local road network, calculations and conclusions is contained within *Annex B*.

4.8

VISUAL

Due to the emphasis placed by Council on the retention of the important visual characteristics present within the LGA, a comprehensive visual impact assessment was undertaken as part of the LES. This document is included as *Annex N* which contains a comprehensive visual analysis and impact assessment carried out in accordance with the requirements of DCP 89 – Scenic Quality and DCP 159 - Character. It provides a number of outcomes and recommendations based on landscape character and viewshed assessment. These recommendations have been included within the site analysis and constraints plan (see *Chapter 5*), as well as the form of the draft

LEP. These elements also pertain to the control of the built environment that will need to be considered during the subdivision design processes and include the following:

- retain existing ridgeline vegetation where possible and encourage tall native trees to be retained and planted in private lots. Lots located along the ridgeline should allow for tree planting in front and rear yards. Lots in these locations are to be of a suitable depth. The ridgeline is the most visible aspect of the site when viewed from the surrounding areas and retention of canopy trees in this area will reduce the visual impact of any clearing undertaken;
- allow for larger lots on the southern and south eastern boundaries to provide a transition between the more densely developed valley near Kings Avenue and the adjoining rural residential and bushland areas;
- rural style fencing (e.g. post and rail) is preferred for the south east boundary and lots adjoining Kincumba Mountain;
- where solid perimeter fencing is required, a vegetation screen should be incorporated to soften the visual impact and maintain amenity for adjoining owners;
- a vegetation buffer to the north west boundary will retain current amenity and privacy for existing residents;
- retain appropriate vegetation in the two gullies;
- retain views along the two gullies from Kings Avenue;
- dwellings adjoining Kings Avenue should be designed so that rear fencing is either screened by vegetation (on the Kings Avenue side) or that they have a dual frontage to ensure that the development contributes to the amenity of the streetscape;
- low open style fencing in conjunction with landscaping is recommended for the side boundaries of the north eastern most areas, adjacent to Belar Avenue;
- given that the site can be viewed from nearby high points such as Kincumba Mountain, the selection of roof colours and materials should be in accordance with the architectural guidelines; and
- landscaping should compliment the site characteristics and in particular, incorporate the planting of new canopy trees using endemic species.

4.9 CONTAMINATED SITE ASSESSMENT

4.9.1 *Introduction*

In order to characterize the site, assess its suitability for development and address the requirements of SEPP 55, a Phase One Environmental Site Assessment (*Annex E*) was undertaken to address the following objectives:

- identify all past and present potentially contaminating activities;
- identify potential contamination types;
- discuss the site condition;
- provide a preliminary assessment of site contamination; and
- assess the need for further investigation.

A summary of the outcomes of this report is provided below, with the full report provided as *Annex E*.

4.9.2 *Scope of Works/Methodology*

The following works were undertaken:

- site history review including historical land titles and aerial photographs;
- a review of site geology, hydrology, hydrogeology (including a desktop search of the DWE groundwater bore data base) and topography information for the site; and
- a site inspection of potential sources of contamination (e.g. current and former land uses etc.).

4.9.3 *Site Characterization*

The Phase 1 ESA considered the environmental conditions based on three criteria:

- available background information;
- site history; and
- conditions of the site and surrounding environment.

Generally the site was assessed as being free of potential contaminants or past and present contaminating activities, likely to have a significant adverse impact on human health or the environment. The site, although disturbed in parts by clearing of bushes and trees, is currently free from development. Also, no evidence of former development was noted. As the site is largely uncontrolled it cannot be discounted that illegal dumping of potentially contaminating materials has occurred. However, based on the information reviewed it is considered that the potential for such dumping is low.

Potential for existing site contamination therefore is considered to be low and if encountered contamination is likely to be limited in extent to localised zones within the site. Therefore the site is considered to have low potential to adversely affect human health or the environment either on surrounding properties or local receiving waters.

It is not considered the further investigations to assess the site for environmental conditions in accordance with the current assessment objectives are required prior to the site being developed.

4.9.4 *Conclusions and Recommendations*

The Phase 1 ESA undertaken for the proposal has not identified any significant potential for site contamination. Therefore it can be concluded that the site is suitable for the proposed development from a site contamination perspective. Providing that environmental conditions on the site do not deteriorate due to unforeseen circumstances further investigations to assess the environmental conditions on the site are not recommended.

5.1 INTRODUCTION

In order to draw together the findings documented in the previous chapters and provide satisfactory conclusions to this LES, an integrated assessment of the identified constraints and opportunities has been undertaken. These constraints and opportunities occur on a number of levels, namely:

- opportunities for the establishment of a hi – tech home business estate;
- constraints and opportunities presented by the strategic planning framework; and
- the physical properties of the site need to be interpreted as constraints/opportunities in relation to the proposed development of the hi – tech home business estate.

Items one and two have been comprehensively examined within the previous three chapters. The benefits and opportunities presented by locating such a development within the Gosford LGA have been demonstrated as being substantial, as has its consistency with the objectives of the various documents detailing the strategic planning framework for the Central Coast region. The proposal also represents the opportunity for Council to secure a large portion of land for inclusion within the Coastal Open Space System.

Having established this need, the outcomes of the environmental impact assessment contained within *Chapter 4* have been utilised to undertake constraints and opportunities mapping. The results of this mapping exercise were used to formulate a development concept plan based on:

- areas identified as being generally appropriate for urban development;
- areas which subject to appropriate environmental management measures could be developed for specified uses; and
- areas of the site which due to their environmental properties, need to be retained in an undeveloped state.

5.2 CONSTRAINTS MAPPING

The primary constraints include:

- threatened, endangered or vulnerable species and their habitats;
- land in excess of 20% slope;

- the need to incorporate bushfire asset protection zones;
- preservation of key riparian vegetation;
- flood prone land;
- geotechnical considerations; and
- road access constraints.

The results of the initial constraints mapping exercise are illustrated within *Figure 5.1*. This mapping exercise indicated that the primary constraints are ecologically based and in particular the riparian areas within the site require rehabilitation and ongoing management to restore their biodiversity values.

5.3 *CONCEPT PLAN*

From the constraints analysis, a development Concept Plan (see *Figure 5.2*) has been prepared showing the area of land suitable for low density residential development, community facilities, lower density business hub support facilities, and those areas which due to their environmental attributes require protection. The Concept Plan is provided to illustrate the form development might take which is consistent with the proposed rezoning as documented in this LES. It provides an example of how development could occur consistent with the delineated zone boundaries in *Figure 1.4*.

Legend

- 20% RESIDENTIAL
- 60% OPEN SPACE (SPECIAL PURPOSES)
- 70% CONSERVATION & SCENIC PROTECTION (CONSERVATION)
- 70% CONSERVATION & SCENIC PROTECTION (SCENIC PROTECTION - RURAL LAND, RURAL RESERVE)
- 70% CONSERVATION & SCENIC PROTECTION (RESTRICTED DEVELOPMENT - PLANNED PHASE LAND)
- COASTAL GULLY CLOSED FOREST (EEC - LOWLAND RAINFOREST)
- SLOPE OF THE LAND > 20%
- RIPARIAN ZONE
- HOLLOW BEARING TREE APPROX LOCATION
- NEW SURVEYED HOLLOW BEARING TREE APPROX LOCATION
- GREATER BROAD-NOSED BAT
- LITTLE BENTWING BAT
- EASTERN FALSE PHOENISTELLE
- YELLOW BELLED SHEATHAIL BAT
- EASTERN FREETAIL BAT
- POWERFUL OWL
- EASTERN BENTWING BAT
- GREY-HEADED FLYING FOX FLIGHT DIRECTION
- SCOTT OWL
- YELLOW BELLED GLIDER
- RAINFOREST BUFFER
- BUSHFIRE FLAME ZONE SETBACK
- BUSHFIRE TRAILS
- CENTER LINE OF CREEK
- POWER LINE EASEMENT
- SITE BOUNDARY - TOTAL
- 1% AEP

Source:
Crighton Properties Pty Ltd

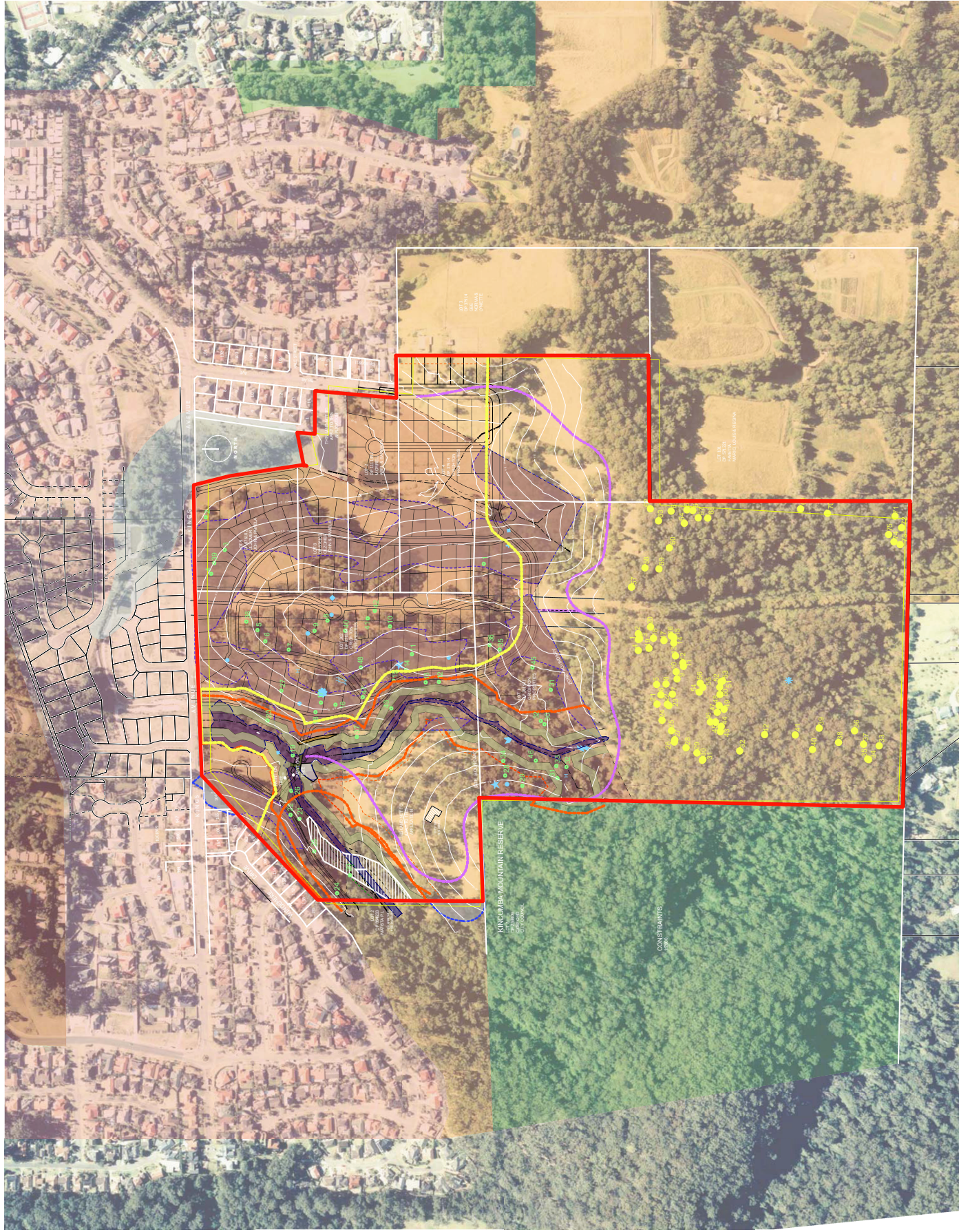
Figure 3.1

Constraints Plan

Client:	Crighton Properties Pty Ltd
Project:	Parkside Terraces Parkside Terraces Local Environmental Study
Drawing No:	05020551_LES_Nov10_CD08_R1.cdr
Date:	28/01/2011
Drawn by:	JD
Reviewed by:	AA
Scale:	Not to Scale

More and figures contained within this document may be based on third party data, may not be to scale and is intended for use as a guide only. ERM does not warrant the accuracy of any such maps or figures.

Environmental Resources Management Australia Pty Ltd
53 Bonville Avenue, Thornton, NSW 2222
Telephone +61 2 4984 2150



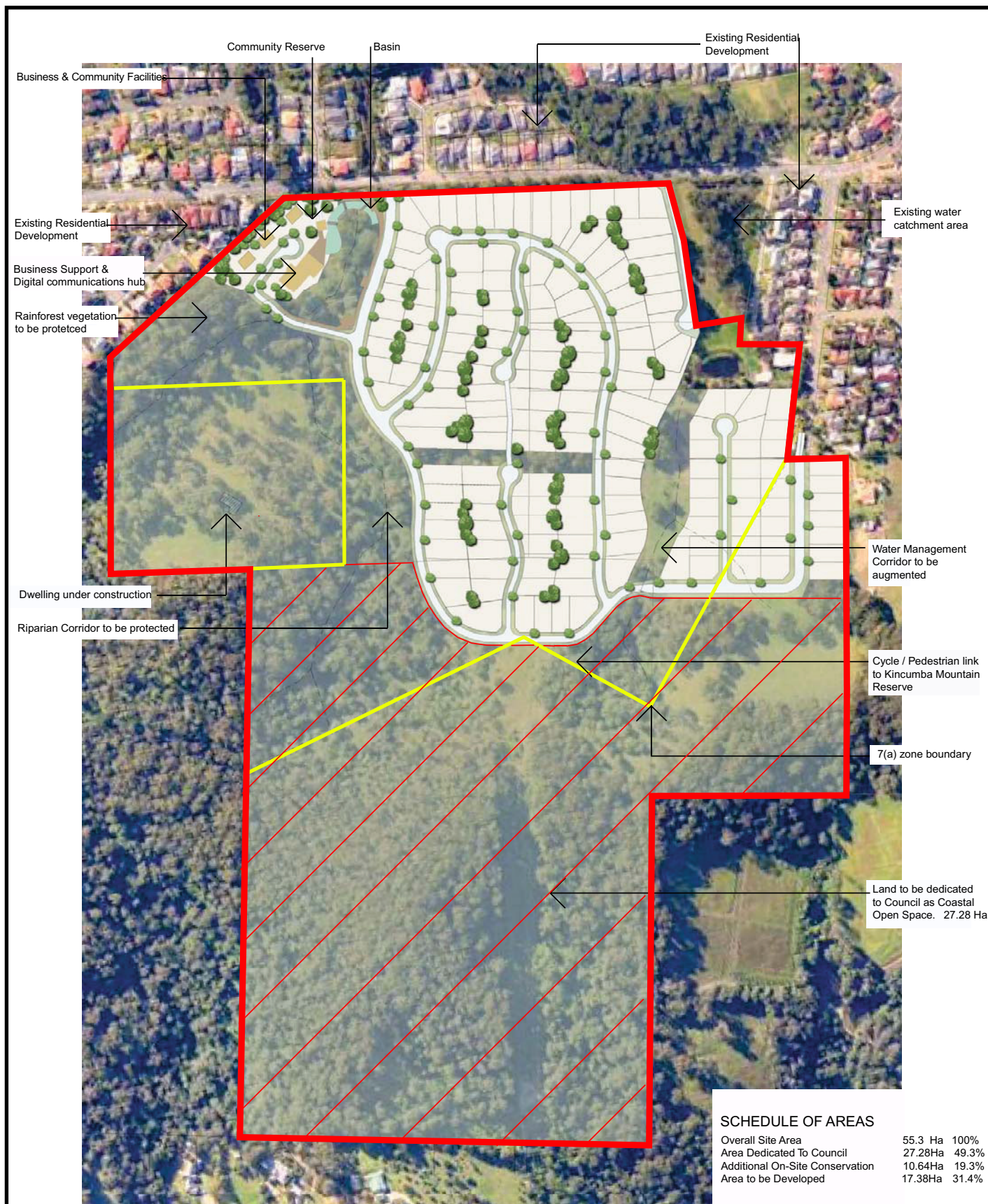


Figure 5.2

Concept Plan

Source:
Crighton Properties Pty Ltd

Client: Crighton Properties Pty Ltd
Project: Parkside Terrigal Rezoning Report - Local Environmental Study
Drawing No: 0050265h_LES_Nov10_C009_R1.cdr
Date: 28/01/2011 Drawing size: A4
Drawn by: JD Reviewed by: AA
Scale: Refer to Scale Bar



Maps and figures contained within this document may be based on third party data, may not be to scale and is intended for use as a guide only. ERM does not warrant the accuracy of any such maps or figures.

Environmental Resources Management Australia Pty Ltd
53 Bonville Avenue, Thornton, NSW 2322
Telephone +61 2 4964 2150

R0	15-12-10	JD
R1 Preliminary Issue	28-01-11	JD
Suffix Revisions	Date	Init



6.1 INTRODUCTION

Assessment of the concept plan in terms of economic justification, social interactions and ecological impacts needs to be undertaken in an integrated fashion. In order to provide an assessment of the concept plan in respect to the objects of the *Environmental Planning and Assessment Act 1979*, an integrated sustainability and outcomes assessment is presented in this chapter. This assessment includes appropriate mitigation measures and potential development controls.

The objects of the Act are 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 purposes 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;*
- (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,*
- (vii) ecologically sustainable development; and*
- (viii) the provision and maintenance of affordable housing.*

These objects essentially require a triple bottom line (economic, social and environmental) sustainability assessment to be provided to ensure that these objectives have been met. The four principles of ecologically sustainable development (ESD) are listed in Schedule 2 of the *Environmental Planning and Assessment Regulation 2000* (EP&A Regulation) as follows:

- *the precautionary principle;*
- *inter-generational equity;*
- *conservation of biological diversity and ecological integrity; and*
- *improved valuation, pricing and incentive mechanisms.*

The manner in which these four principles apply to the Concept Plan are outlined in the balance of this chapter.

6.2 *ECONOMIC SUSTAINABILITY*

6.2.1 *Introduction*

Long term economic sustainability needs to be measured in the context of the following:

- the capacity of the site to be developed, serviced and maintained in a manner that does not place undue economic demands on Council, adjoining residents or the wider rate payers base;
- the ability of the proposed hi – tech home business park estate to firstly attract home business owners, and to ensure the ongoing operation of the site in the manner proposed; and
- contribution of the site to the economic benefit of the Gosford Local Government Area and New South Wales.

6.2.2 *Site Capacity*

The constraints and opportunities analysis indicates that a maximum of 145 lots can be developed within the confines of the physical limitations of the site. This includes the provision of the following infrastructure:

- internal roads constructed to relevant Council standards as detailed within *Annex B*;
- intersection treatment on Kings Avenue in accordance with AUSROADS requirements as detailed within *Annex B*;
- continuation of Belar Avenue;
- high speed broadband communications connectivity to all lots;
- internal subterranean electricity supply;
- fully integrated water management plan as detailed within *Section 3.5.1*; and
- upgrade of any Council owned physical infrastructure (such as sewerage pumping stations) as detailed within *Section 3.5.1* and *Annexures G and S*.

The site will require that Section 94 and Section 64 Contributions be paid towards augmentation of Council's wider physical infrastructure. The addition of these lots within a readily serviceable urban setting will allow for straightforward servicing and a substantial increase in rate payer base numbers. Additionally, it is proposed to rehabilitate and dedicate to Council, at no cost, a substantial area of ecologically important land (27.2 hectares) to the Coastal Open Space System. This presents the opportunity for Council to add to the regional open space system without any financial burden. The assessment of existing soft infrastructure within the immediate area to accommodate the population increase (*Annex M*, with a summary provided within *Section 3.5.2*) demonstrates that undue pressure will not be placed on these services.

The provision of efficient infrastructure within the hi – tech home business estate, its physical location, and the dedication of land to the Coastal Open Space System presents the opportunity for substantial economic benefit to Council, whilst still allowing for the site to be developed in an economically beneficial manner.

6.2.3 *Home Business Development*

As referenced throughout this LES, the home business sector plays a central role in the economies of Gosford LGA, the Central Coast Region, New South Wales and Australia. Given the site's central location within the Gosford LGA, proposed on site business support facilities, the relatively short commute to the global city of Sydney, it is likely that the proposed hi – tech home business estate will be in high demand. *Section 3.2* provides a comprehensive assessment of the need and advantages presented by a conglomeration of home businesses. As the long term assessed economic benefits are highly dependant on the success of the hi – tech home business estate concept, a comprehensive monitoring plan needs to be implemented. Background research undertaken by the Universities of Sydney and Newcastle provide a strong indication that long term the hi – tech home business estate will be a success.

6.2.4 *Contribution to the Wider Economy*

The economic and employment impact assessment undertaken by Professor Scott Holmes (provided within *Annex M* and summarised within *Section 3.2.3*) outlines the likely short and long term contribution of the proposed hi – tech home business estate to the wider economy. The economic benefits are included within *Table 3.1* indicate a substantial input to the robustness of the local, regional, State and National economies. The predicted level of economic and employment benefits will be confirmed during the monitoring phase.

6.2.5 *Outcomes to be Implemented*

In order to ensure that the outcomes alluded to previously eventuate, the following basic measures need to be put in place:

- development of 145 fully serviced lots at full cost to the developer, including all infrastructure installation and upgrades as recommended within *Section 6.2.2*;
- dedication of 27.2 hectares of land to the Coastal Open Space System at no cost to Council;
- provision of business support facilities to attract home business operators;
- requirements to ensure that all sites are operated as, or are capable of being operated as, home business;
- property title system that will discourage people from establishing themselves in the estate that do not wish to operate a home business; and
- a monitoring plan that will measure the success of the hi – tech home business concept.

6.3 *SOCIAL SUSTAINABILITY*

6.3.1 *Introduction*

The concept of ongoing social sustainability with regards to the development of the proposed hi – tech home business estate needs to be looked at in the following manner:

- impacts of the construction, and ongoing operation of the site as a hi – tech home business estate on the social amenity of the surrounding area;
- capacity of the site to contribute to the social well being of the immediate residential areas, as well as the wider area; and
- how the concept of a hi – tech home business estate can be operated such that the quality of life of the present, and subsequent generations of occupants remains high.

6.3.2

Direct Impacts

Potential direct amenity impacts upon the adjoining residential areas relate to the construction phase of the works, as well as ongoing operational phase. The matter of construction noise is typically assessed during any development application phase and therefore has not yet been subject to any detailed technical studies.

Ongoing operational matters potentially occurring include increase in local traffic flows, increased pressure on public facilities and potential increased demand on services. The traffic assessment that was undertaken (provided as *Annex B* and summarised within *Section 4.7*) concluded that traffic movements associated with the site would be similar to that of a residential development of the same size and therefore would not cause any undue impacts on the surrounding area. Furthermore, there is likely to be a positive impact on the regional road network in terms of a reduction in vehicular movements.

The infrastructure assessment presented within *Section 3.5.2* examined the potential for the proposal to place an increased demand on public recreation facilities within the area. It was concluded that given the relatively small population increase anticipated, it will have minimal effect on capacity of recreation facilities. *Section 3.5.2* also concluded that the existing public and private infrastructure within the area was capable of absorbing any increase in population.

Impacts can also arise where higher densities of development are proposed than that of surrounding areas. Differing densities and types of development can create additional traffic movements and traffic conflicts. The amenity and social expectations of occupants of higher density development occupants can differ from lower density areas and cause potential conflict. Development of the site in a manner commensurate with the surrounding areas as proposed in the Concept Plan is a conscious attempt to avoid these types of conflicts.

6.3.3

Contribution to Social Well Being

The site will include substantial passive recreation areas which will be made available to the general public. This is considered a net benefit to the social wellbeing of the area. Additionally, the dedication of approximately 27.2 hectares of rehabilitated, ecological robust land to the Coastal Open Space System represents a substantial increase in publicly accessible open space within the Gosford LGA. The Concept Plan which evolved out of the analysis of the constraints and opportunities of the site also allows for direct public access to be gained through the site to the broader Kincumber Mountain Coastal Open Space System.

The economic and employment impact assessment undertaken on the proposed hi – tech home business estate concluded that it would have an annual benefit of \$35 million, \$8.4 million of which would be captured within the immediate region. A total of 440 jobs would be created both directly and

indirectly by the proposal, 308 within the immediate region. Therefore, ongoing use of the site in the manner proposed has the potential to greatly contribute to the social well being of the wider area.

6.3.4 *Internal Quality of Life*

The conglomeration of home businesses on the site has the potential to cause internal residential amenity problems. These are primarily related to noise. Whilst there would be an enforceable expectation that all sites contain, or are able to accommodate, a home business, there are potential amenity issues associated with any home business. It will therefore be necessary for each proposed home business to comply with the rules set down by the Community Association aimed at safeguarding the local amenity.

The notion of the hi – tech home business estate relies on the ongoing utilisation and maintenance of the business support hub. Measures will be implemented to ensure that this support structure is in place for the life of the development.

6.3.5 *Outcomes to be Implemented*

In order to ensure that the desired outcomes are realised, the following basic actions need to take place:

- dedication of 27.2 hectares of land to the Coastal Open Space System at no cost to Council;
- public access to the Kincumber Mountain Coastal Open Space System be granted through the site;
- mechanism to ensure that all recreation facilities proposed to be included on the site are available for use by the general public;
- monitoring of the success of the hi – tech home business estate concept to measure its contribution to the social well being of the Gosford LGA;
- appropriate controls be put in place to ensure that any development on the site is consistent with the scale and density in the surrounding areas;
- development controls that ensure that dwelling footprints are similar to those of surrounding areas whilst recognising the physical requirements of home businesses;
- controls be put in place to limit the potential impacts of some home businesses upon the residential amenity of the area; and
- require the provision of appropriate funding for the ongoing operation of the business support hub be provided by residents of the proposed hi – tech home business estate.

6.4 ECOLOGICAL SUSTAINABILITY

6.4.1 *Introduction*

The concept of ongoing ecological sustainability with regards to the development of the proposed hi – tech home business estate needs to be looked at in the following manner:

- contribution to global warming and climate change;
- off site ecological impacts; and
- on site ecological impacts.

6.4.2 *Global Warming and Climate Change*

The development of the home business park estate with associated business support services and electronic facilities will result in a reduction in the demand for broader external traffic movements out of the Central Coast region to larger metropolitan areas by containing regional trip generation through on site local employment, as detailed in the Traffic Impact Assessment (see *Section 4.7* and *Annex B*). This will aid in the reduction of greenhouse gas emissions.

The reduction in transport associated with Parkside@Terrigal is twofold, being:

- hi-tech home based business estate providing local employment within the estate, thereby reducing employment related transport for residents of the estate; and
- the provision of business support services and electronic facilities reducing reliance on transport outside the region to larger metropolitan areas for such services and facilities.

The Traffic Impact Assessment analysed the likely reduction in traffic as a result of the on-site employment associated with the 145 lot hi-tech home based business estate. The assessment (refer to *Annex B*), based on a home business participation rate of 75% and an approximate external employment rate of one full time position per home owner participant, concluded:

- that for people working from home, there would be a reduction in local traffic by up to 17%, however this would be balanced within the estate by additional trips for support staff working in the houses and that the impact on the local road network would be similar to a normal residential subdivision; and

- the containment of traffic within the local road network as a result of the hi-tech home business estate will result in a reduction in employees commuting outside the region. The Traffic Impact Assessment identifies that in 2001, 25.2% of Central Coast residents worked outside the region, of which 79% travelled by car to work. The assessment concluded that the provision of a projected 219 full time positions on site in addition to further 'spin off' local employment opportunities is likely to result in a significant net reduction in movements on the broader road network and F3 Freeway.

The significant net reduction in vehicle movement outside the region will result in a reduction in greenhouse gas emissions. Additionally, the construction of the dwellings will also be undertaken in a manner that exceeds the requirements set out within State Environmental Planning Policy – BASIX. This will significantly lessen the energy and water requirements when compared to a standard residential housing estate.

The net reduction in vehicle movements outside the region will also facilitate social wellbeing and harmony by reducing commute times, thereby enabling greater time for family and leisure within the open space areas of the estate (see *Section 6.3*).

6.4.3 *Off Site Ecological Impacts*

The site is located high in the catchment which drains into the Terrigal Lagoon. The ecological assessment undertaken as part of the LES (*Annex C*, with summaries provided within *Sections 4.2 and 4.5*) identified a number of water courses with capacity to carry water off site. Therefore, the health of these water courses, the riparian areas, and the quality of surface water runoff entering these water courses is critical to the overall ecological performance of Terrigal Lagoon. It is proposed to appropriately preserve and rehabilitate the watercourses and riparian areas and put in place appropriate water sensitive urban design measures.

The ecological site assessment identified that elements of the site's vegetation play a critical role in providing habitat linkages to conservation reserves (primarily the Kincumber Mountain Coastal Open Space System). These elements were identified within the constraints mapping and have been nominated to be dedicated, at no cost to Council, to the Coastal Open Space System. This will ensure that vital habitat linkages are retained and managed into the future.

6.4.4 *On Site Ecological Impacts*

As part of investigations, a number of physical ecological constraints were identified. These include the presence of endangered ecological communities and threatened species. The location of these was considered in the development of the constraints and opportunities plans. Additionally, a number of management and rehabilitation opportunities have been identified

to ensure that any impacts are minimized and the site retains and improves its present ecological values. In order for this to occur, it is proposed to implement a number of retention, management and rehabilitation measures.

6.4.5 *Outcomes to be Implemented*

In order to ensure that the desired outcomes are realised, the following basic actions need to take place:

- requirements that each individual dwelling be operated as, or able to be operated as, a home business;
- implementation of specific architectural guidelines;
- dedication of 27.2 hectares to the Coastal Open Space System;
- restoration and retention of riparian vegetation;
- retention of areas of the endangered ecological community;
- retention and protection of areas of vegetation in good condition with high biodiversity values;
- retention of habitat linkages to conservation areas;
- implementation of a water quality management system; and
- implementation of an ecological site management plan.

6.5 *IMPLEMENTATION*

The construction, maintenance, monitoring and ongoing operation of the site in the manner described within this LES is critical to the success of the hi – tech home business estate. It is therefore proposed to put in place a multiple layered framework to facilitate the delivery of the outcomes described within *Section 6.4*. These layers include:

- Zoning and Supplementary Controls;
- Voluntary Planning Agreement;
- Draft Development Control Plan; and
- Community Title and Precinct Management Plan.

6.5.1 *Interim Development Order No 122 (IDO No. 122), Gosford Planning Scheme Ordinance (GPSO) and Draft LEP 2009*

Interim Development Order No 122 (IDO No. 122) and Gosford Planning Scheme Ordinance (GPSO) are the prevailing local planning instruments within the Gosford Local Government Area controlling the present development of the site.

On the advice of Council, the Local Environmental Study has been prepared reflecting the future planning framework being draft GLEP 2009. Specifically, it is proposed to rezone the site from the current Environmental 7(a) Conservation and Scenic Protection (Conservation) and 7(C2) Conservation And Scenic Protection (Scenic Protection - Rural Small Holdings) zones under Gosford Interim Development Order No 122 to R2 Low Density Residential, RE1 Public Recreation, E2 Environmental Conservation and RE2 Private Recreation under draft Gosford Local Environmental Plan 2009 (draft GLEP 2009).

The following addition to Clause 5.4(2) of draft GLEP 2009 is also proposed by inserting the words:

"...unless the business is located upon Lot 202 DP 831864, Lots 8 and 9 DP87601, Lot 2 DP 1111392, Lot 4 DP 37914 and Lot 1 DP 381971 located at Kings Avenue, Terrigal, in which case the business must not use more than 60 square metres of floor area".

6.5.2 *Voluntary Planning Agreement*

Section 93F of the *Environmental Planning and Assessment Act 1979* allows for a voluntary agreement to be entered into between a developer and a planning authority. Such an agreement is able to be entered into when:

- a change has been sought to an environmental planning instrument; or
- a development application has been, or is proposed to be, made.

Such agreements (known as voluntary planning agreements – VPA) are generally entered into in large scale developments which are undertaken in stages. Given the scale of the potential development arising from the rezoning, it is proposed to negotiate a VPA with Council. Whilst such an agreement would be subject to the final site layout plans and any requirements of public authorities, a general outline of undertakings is provided below:

- dedication to Council of all internal access roads as public roads;
- development of the hi – tech home business estate as outlined in this LES;
- dedication of 27.2 hectares of land within the site to Council at no cost to become part of the regional open space network;

- payment of any contributions required under Section 94 of the EP& A Act;
- carrying out of any infrastructure works required to service the development at no cost to Council; and
- maintain and make available to the general public, any open space provided within the development at no cost to Council.

6.5.3 *Parkside Development Control Plan*

A draft Development Control Plan for Parkside (draft Parkside DCP) has been prepared (see *Annex U*) which provides more detailed guidelines for the subdivision and development of the land. The draft Parkside DCP has been the subject of consultation with Council officers. The objectives of the draft Parkside DCP (from which specific controls are developed) are to:

- provide the opportunity for the development of the land as a Home Based Business Estate under Community Land Development Act 1989;
- protect the environmental properties of the site, including mitigating any potential impacts on threatened species and endangered ecological communities;
- ensure that the riparian areas of the site are adequately rehabilitated and access is strictly controlled to prevent future degradation;
- ensure that flood prone land is not developed for residential purposes;
- ensure that adequate asset protection zones are provided and maintained to mitigate any bush fire hazard on site;
- ensure that the site is adequately serviced including the provision of sewer services, a stormwater quantity and quality management system;
- ensure that traffic generated by land uses on site does not adversely impact on the surrounding road network and adequate on site car parking is provided;
- ensure the development does not adversely impact on the amenity of the area;
- ensure that when the site is developed the geotechnical constraints of the site are considered and any geotechnical hazard is adequately mitigated;
- ensure that public access to Kincumba Mountain Reserve is freely available through the site;
- ensure that, if the site is developed for a Home Based Business Estate, an appropriate business support hub will be provided within the boundaries of the site;

- ensure the provision of appropriate active and passive recreational facilities on site to service the needs of residents, including residents of any Home Based Business Estate and other residents;
- ensure that the street network is safe and efficient;
- ensure that appropriate pedestrian pathways are provided which facilitates access to the open space areas on site and the Kincumba Mountain Reserve; and
- ensure that any buildings erected on site have due regard for site sensitive design issues.

6.5.4

Community Title and Precinct Management Plan

Rather than a traditional Torrens Title arrangement, in order to ensure that the proposed hi - tech home business estate is developed and managed in accordance with the principles outlined within this LES, it is proposed to undertake a Community Title subdivision utilising the provisions of the Community Land Development Act 1989. This will allow for enforcement of home business provisions and effective management of community facilities. In order to achieve this, a Community Management Statement is required to be prepared. The adoption of such a statement would be formally undertaken during the development approvals phase of the site development. A draft Community Management Statement has been prepared and included as *Annex H*. Matters that must included within the statement are:

- the location, control, management, use and maintenance of any part of the community property that is an open access way or a private access way;
- the control, management, use and maintenance of any other part of the community property, including any special facilities provided on the community property;
- matters affecting the provision of, and payment for, internal fencing on the community parcel including any obligations of the community association or the subsidiary bodies;
- the storage and collection of garbage on and from the community parcel and any related obligations of the community association or the subsidiary bodies;
- the maintenance of water, sewerage, drainage, gas, electricity, telephone and other services;
- insurance of the community property;
- the executive committee of the community association, the office-bearers of the committee and the functions of the office-bearers;

- meetings of the executive committee;
- voting on a motion submitted to the executive committee otherwise than at a meeting of the committee; and
- the keeping of records of proceedings of the executive committee.

It is proposed that the overriding Community Management Statement would apply to the whole site and include provisions such as:

- description of access provisions;
- maintenance and upkeep provisions;
- financial management;
- architectural controls (including the requirement that each new dwelling contain a dedicated area between 30m² and 60m² capable of being utilised as a home business);
- on site parking provisions; and
- restrictions as to what type of business that can be conducted to ensure that residential amenity is preserved.

In addition, a number precinct plans and additional management plans are proposed to be developed. These will include a home business support hub and community facilities precinct plan, including provisions relating to access, maintenance and financial management. A comprehensive Asset Management Plan will be developed to be adopted by the Community Title Management Statement. This will incorporate documents either prepared in support of this LES, or required as primary recommendations and comprise the following:

- water quality management plan;
- ecologically based site management plan – in accordance with the Ecological Site Assessment;
- vegetation management plan – in accordance with the Ecological Site Assessment;
- bushfire management plan – in accordance with the Bushfire Risk Assessment; and
- asset maintenance schedule – to be prepared by a qualified building inspector on completion of Civil and Architectural works.

The proposed rezoning of the site on Kings Avenue from the current Environmental 7(a) Conservation and Scenic Protection (Conservation) and 7(C2) Conservation And Scenic Protection (Scenic Protection - Rural Small Holdings) zones under Gosford Interim Development Order No 122 to R2 Low Density Residential, RE1 Public Recreation, E2 Environmental Conservation and RE2 Private Recreation under draft Gosford Local Environmental Plan 2009 (draft GLEP 2009) will facilitate the development of a hi – tech home business estate.

The Parkside@Terrigal hi – tech home business estate concept has been carefully formulated over a number of years and has included input from academic staff at the Universities of Sydney and Newcastle. The concept has the capacity to greatly aid in the development and support of small business within the Gosford Local Government Area. The home business sector represents 63% (282,000) of the overall total of small businesses operating within New South Wales. The development of a dedicated home business hub has particular merits in that it encourages innovation, collaboration of ideas and facilitates business growth. Given the uniqueness of the proposal and the capacity of small businesses to contribute to the local, regional, state and national economies it is considered that the establishment of a pilot project will provide the opportunity to monitor the success of the concept which could potentially be replicated within other regions.

Whilst the concept of a hi – tech home business estate is still in the formative stage, it is consistent with the broader planning principles pertaining to economic, social and ecologically sustainable development. These principles are embodied within documents such as the *Environmental Planning and Assessment Act 1979*, the draft Gosford Local Environmental Plan 2009, Central Coast Regional Strategy and the Gosford Vision 2025. This LES has demonstrated that the proposal will aid in the attainment of the goals and objectives of these documents. The Kings Avenue site has been specifically chosen due to its location within the existing urban mosaic, its capacity to accommodate the various elements required by the hi – tech home business estate, and the contribution it can make to the regional open space network. In order to ensure that development takes place in a sustainable manner, it is proposed to put in place a number of specific measures including a range of environmental management plans. These include:

- water management plan based on the principles of Water Sensitive Urban Design;
- retention of areas with high ecological values, and dedication of a large portion of this land (27.2 hectares) to Council for inclusion within the Coastal Open Space System; and
- ecological site management plan to retain and manage areas remaining within private ownership.

The physical opportunities presented by the site together with the potential presented by a well managed, hi – tech home business estate are compelling reasons to support the rezoning of the site. The economic and employment benefits generated both during and after construction are overwhelmingly positive, as is the package of environmental benefits proposed. A multi layered planning framework has been developed which will allow for the development of the site in the manner proposed. It will provide assurances that the commitments made are enforceable for the life of the development.

REFERENCES

Advanced Treescape Consulting (2008) **Possible Indigenous Scar Tree Within the Kings Road, Terrigal Development**

Andrews Neil Architects Planners Landscape + Environment (2010) **Parkside@Terrigal Draft Visual Analysis and Impact Assessment**

Andrews Neil Architects Planners Landscape + Environment (2005a) **Parkside@Terrigal Rezoning Report, Kings Avenue Terrigal**

Andrews Neil Architects Planners Landscape + Environment (2005b) **Parkside@Terrigal Rezoning Submission**

Andrews Neil Architects Planners Landscape + Environment (2005c) **Parkside@Terrigal Rezoning Report**

Cahill and Cameron (2008) **Preliminary Stormwater Assessment for Proposed Community Title Residential Development at Kings Avenue, Terrigal**

Cardno (2009) **Water and Sewer Infrastructure Options Report**

Cardno (NSW) Pty Ltd (2005) **Kings Avenue Terrigal Water cycle Plan**

Coffey International Partners (1993) **Crichton Properties Pty Ltd Proposed Subdivision, Lot 2 Belar Avenue, Terrigal – Stability Assessment**

Coffey International Partners (1992) **Crichton Properties Pty Ltd Proposed Subdivision, Lot 22 Karala Road, Part Portion 104, Terrigal – Geotechnical Assessment**

Coffey Geotechnics (2008) **Urban Capability Assessment with Respect to Slope Risk – Proposed Subdivision at Kings Avenue, Terrigal**

Conacher Travers (2005a) **Bushfire Protection Assessment for the Proposed Rezoning and Residential Subdivision, Kings Avenue, Terrigal**

Conacher Travers (2005b) **Flora and Fauna Assessment Report – Proposed Rezoning, Kings Avenue, Terrigal**

Conacher Travers (2010) **Bushfire Protection Assessment for the Proposed Rezoning and Residential Subdivision, Kings Avenue, Terrigal**

Conacher Travers (2010) **Ecological Site Assessment for Local Environmental Study – “Parkside”, Kings Avenue Terrigal**

Crichton Properties and Peter Andrews and Associates (2008) **Parkside@Terrigal DCP 122 ‘Cut and Fill Restrictions’ Compliance Report**

Crichton Properties (2004) **Parkside@Terrigal “Live.....Work.....Play” Masterplan Discussion Paper**

Cumberland Ecology (2010a) **Review of Ecological Site Assessment for Parkside @ Terrigal.**

Cumberland Ecology (2010b) **Assessment of Adequacy of Biodiversity Offsets**

Duo Consulting (2010) **Parkside@Terrigal Statement of Social Impacts**

Environmental Resources Management Australia (2008) **Parkside at Terrigal – Phase 1 Environmental Site Assessment**

Environmental Resources Management Australia (2008) **Parkside@Terrigal Aboriginal Heritage Assessment**

Environmental Resources Management Australia (2010b) **Consideration of Rainforest Policy Parkside@Terrigal Statement of Environmental Effects**

Geoloyze (2004) **Rezoning submission, Kings Avenue, Terrigal – Engineering Details**

Mark Waugh Pty Ltd (2005) **Proposed Residential Development, Kings Avenue, Terrigal NSW – Traffic Impact Assessment**

Mark Waugh Pty Ltd (2008) **Proposed Residential Development, Kings Avenue, Terrigal NSW – Traffic Impact Assessment**

Parsons Brinkerhoff - Professor Scott Holmes (2005) **Parkside@Terrigal Employment and Economic Impact Assessment**

Reg Silcox Consulting Archaeologist (1996) **Archaeological Survey for Proposed Rezoning, Kings Road, Terrigal, NSW**

Tony Gilmour (2005) **Creating a Wired Business Community on the Central Coast** University of Sydney