

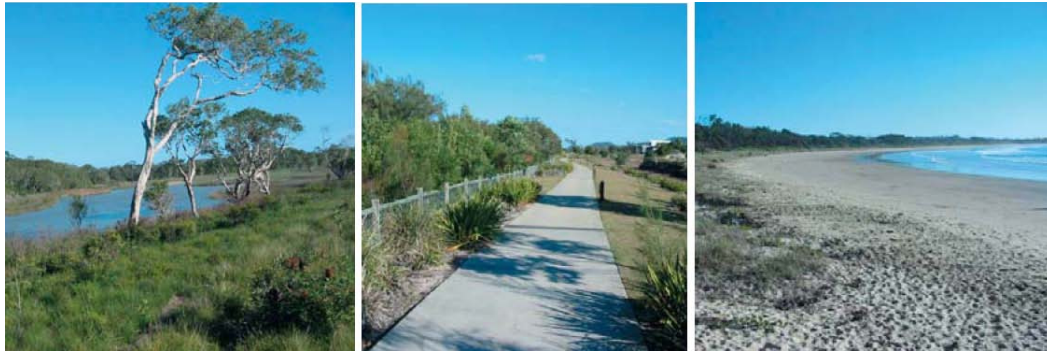
# **ENVIRONMENTAL ASSESSMENT**

**Concept Plan Application for**

**RESIDENTIAL SUBDIVISION**

**SANDY BEACH NORTH  
PACIFIC HIGHWAY, SANDY BEACH**

**DoP Ref: MP05-0083**



Prepared for

**NSW Department of Planning**

On behalf of

**Sandy Shores Development Pty Ltd**

By

**Planning Workshop Australia**

# ENVIRONMENTAL ASSESSMENT

## Concept Plan Application for

## RESIDENTIAL SUBDIVISION

## SANDY BEACH NORTH PACIFIC HIGHWAY, SANDY BEACH

(Lot 22 DP 1070182 & Lot 497 DP 227298)

DoP Ref: MP05-0083

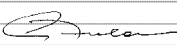
Prepared for

**NSW Department of Planning**

On behalf of

**Sandy Shores Development Pty Ltd**

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## CERTIFICATION

### **SUBMISSION OF ENVIRONMENTAL ASSESSMENT (EA) prepared under the ENVIRONMENTAL PLANNING AND ASSESSMENT ACT 1979, SECTION 75H**

This Environmental Assessment (EA) has been prepared on behalf of **Sandy Shores Development Pty Ltd.**

The proposed concept is described as follows:

**Residential subdivision of Land at Lot 22 DP 1070182, Pacific highway, Sandy Beach, into 280 lots. Lot 497 DP 227298 15 Pine Crescent is proposed to provide access off Pine Crescent.**

The proposal is to be carried out on land shown on the maps included in the EA consisting of:

- Lot 22 in DP 1070182
- Lot 497 in DP 227298

### **Environmental Assessment**

The reports and documentation comprising the Environmental Assessment and accompanying the Concept Plan Application include:

- Urban Form And Landscape Concept Report prepared by John Holland Landscape Architecture (August 2008);
- Site Analysis prepared by John Holland Landscape Architecture (August 2008);
- Ecological Survey and Assessment Report by Conacher Environmental Group (September 2008)
- Assessment of Traffic Impact Assessment prepared by Mark Waugh Pty Limited (August 2008);
- Flood Impact Assessment prepared by Worley Parsons (formerly Patterson Britton and Partners) – (September 2008)
- Scientific Assessment of Entrance Berm Elevation for Hearn's Lake, Sandy Beach North prepared by Worley Parsons (formerly Patterson Britton and Partners) – (January 2007)
- Climate Change Assessment For Proposed Development At Sandy Beach North Worley Parsons (formerly Patterson Britton and Partners) – (August 2008)

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- Noise Assessment prepared by SKM Consulting Engineers (September 2008)

## Certificate

The EA contains all available information that is relevant to the environmental assessment of the activity to which the EA relates.

The information contained in this EA is neither false nor misleading.

I certify that I have prepared the contents of this report (Concept Plan Application and Environmental Assessment), based on the reports cited above, which have been certified by these parties as being true in all material particulars and do not by presentation or omission of information materially mislead.

I hereby certify that I have prepared the contents of this Statement in accordance with Section 75H of the Environmental Planning and Assessment Act 1979.

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## 1 EXECUTIVE SUMMARY

### INTRODUCTION

This Environmental Assessment (EA) has been prepared by Planning Workshop Australia on behalf of Sandy Shores Development Pty Ltd, in order to assess the site suitability and any potential environmental impacts relating to a proposed residential subdivision on land at Pacific Highway, Sandy Beach North.

The Environmental Assessment (EA) accompanies a Concept Plan Application as required under the provisions of **Part 3A** of the **Environmental Planning and Assessment (EP&A) Act 1979 Act**.

The design of the proposed development has been formulated following an extensive level of detailed analysis of the environmental attributes of the site and its context and setting. The site provides an opportunity for a sensitive coastal residential development which both respects, and seeks to conserve, the site's ecology, whilst creating a vibrant residential community.

The development of the Concept Plan for Sandy Beach North demonstrates a sound understanding and appreciation of:

- (a) the physical attributes of the site; and
- (b) the regulatory planning framework.

The Concept Plan establishes a clear structure for the conservation of the natural environmental qualities, scale and mix of development, infrastructure, community facilities and features including its open spaces and pedestrian and cycle pathways.

The Concept Plan is modelled on objectives and practices promoted in the NSW Coastal Design Guidelines. It is consistent with the New South Wales Coastal Policy 1997. It adopts the principles set out in the Settlement Guidelines. It is consistent with the aims of the Coffs Harbour City Council's Local Environmental Plan. It is consistent with the provisions of the North Coast Regional Environmental Plan and applicable State Environmental Planning Policies.

The Concept Plan for the proposed development of Sandy Beach North aims to provide a high quality development in terms of Ecologically Sustainable Development (ESD) and Water Sensitive Urban Design (WSUD) objectives. The concept design presented has considered sustainable management of the stormwater runoff, water conservation and water reuse/recycling into the residential, public domain, and other development areas on site. These aspects of integrated water cycle management has been achieved by incorporating WSUD techniques

## THE SITE

The site is legally described as **Lot 22 in DP 1070182** and has a street address of Pacific Highway, Sandy Beach North, and **Lot 497 DP 227298** with a street address of 15 Pine Crescent, Sandy Beach.

The site has an area of 49.59 hectares and is currently undeveloped. Lot 497 is developed with a residence which will be demolished to permit access from Pine Crescent.

Lot 497 is zoned Residential 2A and Lot 22 is zoned part **Residential 2A Low Density (28.5 hectares)**, part **Residential 2E Tourist (8.5 hectares)**, part **Environmental Protection 7A Habitat and Catchment (9.5 hectares)**, part **Environmental Protection 7B Scenic Buffer (2.1 hectares)** and part unzoned (0.9 hectares) under the provisions of **Coffs Harbour Local Environmental Plan 2000 (CHLEP 2000)**.

The site is generally flat with several pockets of open woodland cover. The remainder of the site is comprised of scattered, lightly spaced canopy with a low, grassy under storey. Key natural site features include Hearn's Lake and lagoon estuary with adjacent vegetated coastal strip and beachfront.

The area consists of relatively low lying land to the North of Sandy Beach. As described below, the dune system bordering the eastern property boundary has been heavily modified – as a result of the early sandmining activity – and is heavily colonised with weed species, including *bitou* bush and lantana.

West of the dunes, the landscape is near flat. It is dominated by dense pasture grass interspersed with stands of open woodland. The shallow southern arm of Hearn's Lake and its tributary Double Crossing Creek, mark the northern margins of the site. Soils within the study area vary from east to west, grading from medium grey, loamy sand (immediately west of the dune system), to grey-black silty loam and alluvium.

## HISTORY OF THE SITE

A comprehensive assessment of the site's land use history has been undertaken for the site by Conacher Travers indicating the impact of past agricultural and other land uses, particularly relating to the landscape and habitat (*Historical Land Use Ecological Assessment Report – Sandy Beach North – p8*):

*The site has undergone an amount of disturbance since the commencement of European settlement in the district. This disturbance, particularly grazing and clearing, has altered the condition of the vegetation within the site in comparison to those disturbed pre-settlement landscapes. This has, in turn, altered habitat type, extent and quality which has had flow on effects on the biodiversity of the native fauna within the site.*

*Based on a comparative analysis of the findings as set out above, it is considered that the condition of the vegetation, habitats and biodiversity values are lower when*

*compared to that which was present within the site at the time of pre European settlement, occupation and land use within the locality.*

## **OUTLINE OF THE PROPOSED DEVELOPMENT**

Concept Plan approval is sought for the development concept of a community title subdivision for residential development at Sandy Beach North incorporating the following elements:

- The indicative general layout into four residential development precincts, enabling 280 residential allotments;
- Indicative general layout of roads, pedestrian and cycle access ways; road connections and beach access pathways;
- Indicative architectural concepts incorporating 6 building types;
- Landscape concept;
- Noise attenuation;
- Recreational open space;
- Provision of ecological buffers and environmental protection areas;
- Vegetation and habitat management concept;
- Foreshore management concept;
- Bushfire management and protection; and
- Stormwater management concept.

Subsequent approvals will be sought for subdivision, roads, earthworks and implementation. The development is proposed to be staged over 6 years and in 6 stages (subject to market demand).

Of the total site area of 49.59ha, approximately 25.5 ha (51% of the site area) will be used for the residential and associated development including pocket parks. Approximately 24 ha (49% of the site area) will be retained for foreshore/lower slope areas and open space designated as an environmental protection area and open space. This incorporates a landscape buffer between the foreshore environmental protection area and the development as vegetated open space. This area will incorporate a proposed perimeter emergency access way which will also function as a combined pedestrian/cycle accessway. It is proposed to incorporate a bio-swale and stormwater runoff management area.

The land set aside for environmental protection and open space represents 49% of the site area which contains the identified environmentally sensitive area which will be conserved, maintained and managed at no cost to the public.

The following extract prepared by John Holland Landscape Architects (refer **Appendix 2**), outlines the design concept as follows (pp1):

*The residential development proposal presents the best possible outcome for the site, restricting development to the flatter areas of the site with minimal tree cover, minimising disturbance while preserving over 50% of the site as open space, which in turn provides considerable setback from the lake edge, riparian zones, drainage lines and significant vegetation; enabling extensive revegetation and habitat creation, as well as protection of Aboriginal heritage.*

*In addition, the new community will support ongoing management of the site, which includes removal of pest plants and reintroduction of indigenous plants. Significantly the application of WSUD will enable substantial improvement of the lake water quality.*

*A fundamental component of the development vision is to restore the natural environmental quality throughout Sandy Beach North, in its streets and open spaces – creating a livable and rewarding residential community with sense of casual stylishness, where homes will be subservient to the landscape.*

*The design process has integrated environmental and urban design in a mutually supportive way and allowed the site's environmental processes to generate design solutions, which are both ecologically sustainable and respectful of the site.*

*The development will be founded on a clear set of principles including:*

- *Sustainability: Creation of environmentally responsible development at all levels in all areas.*
- *Legibility: Creation of a legible and identifiable community, through structured landscape and cohesive built form.*
- *Renewal: Rehabilitation of degraded landscape, recapturing the essence of the coastal environment.*
- *Integration: Integration of open space system, within precincts created around open space. House sites will be integrated into the setting by extending the streetscape into front gardens, extending the sense of scale of public domain.*
- *Ambience: Capturing views of the lake and vegetated backdrop.*

*The proposed sub-division layout offers a highly coherent urban form articulated by individual places and the sharing of common open spaces and natural resources. Similarly, the proposed development is not likely to impose a "significant impact" upon any of the terrestrial, estuarine or wetland communities, as the majority of these plant*

*communities are to be retained. The development has been designed, to protect existing plant communities on the site.*

## **THE ASSESSMENT PROCESS, STAKEHOLDER CONSULTATION AND DESIGN DEVELOPMENT**

An Environmental Assessment (EA) is required to accompany a Concept Plan Application under Part 3A, pursuant to **Section 75H** of the EP&A Act. Accordingly, this EA has been prepared to accompany the Concept Plan Application.

The EA has been prepared in accordance with **Section 75F** of the EP&A Act. It addressed the Director General's Requirements issued on 20 October 2006 and subsequent requirements issued 28 February 2008 relating to climate change considerations. It describes principles of the Concept Plan that will guide the proposed development. It identifies and examines any potential environmental impacts having regard to the relevant sections of the **Environmental Planning and Assessment Act 1979** (the EP&A Act), State Government policies, other legislative requirements and the statutory and non-statutory planning instruments that may apply as well as relevant guidelines of Coffs Harbour City Council.

In the course of preparing the Concept Plan the following agencies were consulted:

- NSW Department of Planning
- NSW Roads and Traffic Authority
- Coffs Harbour City Council
- Coffs Harbour Water
- NSW Department of Natural Resources
- NSW Department of Primary Industries
- NSW Department of Environment and Climate Change
- NSW Department of Primary Industries
- NSW Department of Lands
- NSW Rural Fire Service
- Solitary Islands Marine Park Authority
- Northern Rivers Catchment Management Authority
- Telstra
- Country Energy
- Commonwealth Department of Environment and Heritage
- Coffs Harbour Local Aboriginal Land Council

Details of the consultation process and the issues raised are outlined in the following appendices:

- Urban Form and Landscape Concept Report – **Appendix 2**

- Aboriginal Archaeological Report – Mary Dallas – **Appendix 27**
- Country Energy - **Appendix 28**
- Water and Waste Water Supply - **Appendix 29**

In addition to the above, there was consultation with Coffs Harbour City Council and *Handybin Waste Services* in relation to waste services (refer Section 8.11.1 of this report). Non-government stakeholders, including neighbouring land owners and the local community, will have the opportunity to provide comments during the exhibition period of this concept plan application.

## DEVELOPMENT OPTIONS

A number of development options for the site have been considered with the principal philosophy of providing a framework for integration of natural and human settings, while at the same time ensuring the long term sustainable management of Hearnese Lake and the coastal zone. The analysis of opportunities and constraints for the site has been integral in the concept planning process, with appropriate consideration of flooding, riparian setbacks, flora and fauna and planning issues.

Based on the comprehensive studies undertaken since the preliminary environmental assessment, including those in relation to flooding, climate change, flora and fauna, stormwater, heritage, noise and traffic, and the visual analysis, the overall layout and residential subdivision has been refined to ensure a site responsive layout is developed. Over time that has required the plan be modified to ensure appropriate strategies in relation to the key environmental issues can be achieved. Earlier development options are included in the **Urban Form and Landscape Concept Report (Appendix 2)**, which demonstrate the refinement process as it has progressed.

The final proposed **Subdivision Layout Plan** (refer **Appendix 4**) has been determined based on the site suitability, with an aim to provide for a responsive environmental outcome, particularly in relation to the environmentally sensitive components of the site. The layout offers a highly coherent urban form articulated by individual places and the sharing of common open spaces and natural resources. Similarly, the proposed development is not likely to impose a “significant impact” upon any of the terrestrial, estuarine or wetland communities, as the majority of these plant communities are to be retained. The development has been designed, to protect existing plant communities on the site and provides appropriate setbacks to environmentally sensitive lands.

## JUSTIFICATION FOR UNDERTAKING THE PROJECT

The site is identified in the Department of Planning’s Mid-North Coast Regional Strategy map as a Draft Growth Area (**Appendix 5**).

The Mid-North Coast (of which Coffs Harbour is part) offers a high quality living environment, providing access to desirable beachside settings, and good access to services

and other lifestyle needs. In recognition of these attributes, the numbers of people deciding to settle in the region each year to enjoy the lifestyle is increasing, with the population of the region expected to increase by more than 91,000 people over the next 25 years<sup>1</sup>.

In responding to this demand, there is a need to plan for quality residential development to cater for the needs of the incoming population. This is particularly important given the environmental considerations that need to be addressed in this part of the State. To effectively manage this growth with respect to infrastructure, resources and environmental capacity, Coffs Harbour City Council has identified within its Interim Settlement Strategy (**Appendix 5**) the need to encourage consolidated development in key locations.

The proposed component of residential subdivision in the Concept Plan application has been designed as a sustainable urban form to meet the needs of some of the incoming population. The proposed density for the site meets the demand for residential dwellings in a well located, accessible area, while at the same time reserving some 49% of the site for open space and conservation purposes, in response to the landscape and ecological values of the Hearne's Lake area. It is noted that in addition to this amount of reserved land, areas of landscaping will be required in each of the proposed residential allotments. The Concept Plan incorporates a development outcome which responds to the potential impacts of climate change and its predicted impacts on the local environment.

## ENVIRONMENTAL EFFECTS

Following a review of a Preliminary Environmental Assessment prepared by Planning Workshop Australia, the Director General issued Environmental Assessment Requirements on 20 October 2006 (**Appendix 6**) and supplementary requirements issued on 28 February 2008 (**Appendix 7**). The DG requirements nominated key issues to be addressed within the Environmental Assessment, including:

- Subdivision Design and Layout;
- Flora and Fauna;
- Conservation Areas and Reserves;
- Coastal Zone, access and impacts ;
- Water Cycle Management and Impact on Watercourses;
- Earthworks and filling;
- Hazard Management and Mitigation including climate change impacts;
- Traffic Management and Access;
- Noise;
- Infrastructure Provision
- Heritage; and
- Land Ownership

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<sup>1</sup> Department of Planning "Draft Mid-North Coast Regional Strategy" p1.



While greater emphasis is placed on the above key issues, a range of other issues is addressed in the EA. The EA provides a draft Statement of Commitments (**Appendix 8**) to address and mitigate any potential adverse impacts associated with the development.

## **OUTLINE OF STAGED IMPLEMENTATION**

The development is proposed to be implemented over a number of stages over a six year period. An indicative staging plan is included in the **Urban Form and Landscape Concept Report** at **Appendix 2** (pp 42) and includes:

- Stages 1 and 2 – 55 lots within the south eastern area of the site adjacent to Sandy Beach 15 lots on the eastern edge;
- Stage 3 – 45 lots adjacent to the southern boundary and Sandy Beach;
- Stage 4 – 60 lots at the south western corner;
- Stage 5 – 60 lots along the western edge of the site; and
- Stage 6 – 45 lots at the north western part of the site.

The staging principles outlined in the Concept report requires that environmental protection measures relating to each stage of the development are to be completed prior to occupation. This includes revegetation, water sensitive urban design works, and protection of the 7(a) environmental zone.

## **CONCLUSIONS**

The conclusions of the EA are that the proposed Concept Plan is consistent with the objectives of the Environmental Planning and Assessment Act, in particular, the promotion and co-ordination of the orderly and economic use and development of the land (Section 5(a) (ii) of the Environmental Planning and Assessment Act 1979). It is consistent with the aims and objectives of the Coffs Harbour Local Environmental Plan 2000; is consistent with the objectives and policies of the Department of Planning's Mid-North Coast Regional Strategy, the North Coast Regional Environmental Plan; and complies with the Director General's requirements, the relevant Commonwealth legislation, and State environmental Planning Policies.

It is considered that the proposed development is in the public interest as it will facilitate the enhancement and long term protection of the fragile natural environment. It will provide increased variety and housing choice in the Coffs Harbour Local Government Area in a manner that conforms to the principles of ecologically sustainable development. Finally, it will have positive social, environmental, and economic benefits for the broader community.



**TABLE OF DIRECTOR GENERAL REQUIREMENTS AND WHERE ADDRESSED IN THIS EA**

<b>No.</b>	<b>Key Issue</b>	<b>DG Requirement</b>	<b>Environmental Assessment</b>	<b>Appendices (where applicable)</b>
1.	Subdivision Design and Layout	<b>Issues 1.1, 1.2, 1.3, 1.4, 1.5 and 1.6</b>	<b>Section 7, 8.2.</b>	<b>Appendix 2 – Appendix 4 –</b>
2.	Flora and Fauna	<b>Issue 2.1, 2.2, 2.3</b>	<b>Section 7, 8.3</b>	<b>Appendices 11 and 12</b>
3.	Conservation Areas and Reserves	<b>Issue 3.1, 3.2, 3.3</b>	<b>Section 7, 8.4.</b>	<b>Appendices 2, 11, 12</b>
4.	Coastal Zone, access and impacts	<b>Issues 4.1, 4.2, 4.3</b>	<b>Section 7, 8.5</b>	<b>Appendices 11, 12, 17-21.</b>
5.	Water Cycle Management and Impact on Watercourses	<b>Issues 5.1, 5.2, 5.3 and 5.4.</b>	<b>Section 7, 8.6</b>	<b>Appendices 11, 12, 17-21.</b>
6.	Earthworks and filling	<b>Issue 6.1</b>	<b>Section 7, 8.7</b>	<b>Appendices 11, 12, 17-21, 24, 25</b>
7.	Hazard Management and Mitigation including Climate Change	<b>Issues 7.1, 7.2, 7.3, 7.4, 7.5 and 7.7</b>	<b>Section 7, 8.8</b>	<b>Appendices 11-13, 17-21, 24, 25</b>
8.	Traffic and Vehicular Access	<b>Issues 8.1</b>	<b>Section 7, 8.9</b>	<b>Appendix 15</b>
9.	Noise	<b>Issue 9.1</b>	<b>Section 7, 8.10</b>	<b>Appendix 16</b>
10.	Infrastructure Provision	<b>Issues 10.1, 10.2.</b>	<b>Sections 7, 8.11</b>	
11.	Heritage	<b>Issues 11.1, 11.2</b>	<b>Sections 7, 8.12</b>	<b>Appendices 26,27</b>
12.	Land Ownership	<b>Issue 12.1</b>	<b>Sections 8.13</b>	<b>Appendix 23</b>
<b>Attachment 2 – Plans and Documents to Accompany the Application</b>				
1.	Existing Site Survey Plan			<b>Appendix 3</b>
2.	Site Analysis Plan			<b>Appendix 1 –Fig 17</b>
3.	Locality/Context Plan			<b>Appendix 1 –Fig 20,21</b>
4.	Environmental Assessment			<b>(This EA)</b>
5.	Subdivision Layout Plan			<b>Appendix 4</b>
6.	Stormwater Concept Plan			<b>Appendix 17 – Fig 6</b>
7.	Erosion and Sediment Control Plan			<b>N/a</b>
8.	Landscape Concept Plan			<b>Appendix 2 –Fig 31</b>
9.	Construction Management Plan			<b>N/a</b>

## 2 INTRODUCTION

This Environmental Assessment (EA) has been prepared on behalf of Sandy Shores Development Pty Ltd to accompany a Concept Plan Application under Part 3A of the Environmental Planning and Assessment Act (EP&A Act) 1979 for a residential subdivision at **Lot 22 DP 1070182, Pacific Highway, Sandy Beach**, NSW within the Coffs Harbour Local Government Area (LGA). **Lot 497 DP 227298, 15 Pine Crescent, Sandy Beach** is proposed to provide access off Pine Crescent.

A Preliminary Environmental Assessment was submitted to the Department of Planning (DoP) in December 2005 which identified the key environmental planning issues associated with the project.

In response, the Minister formed the opinion that the proposed development is a project under Part 3A of the Act and authorised the preparation of a concept plan. Following a review of a Preliminary Environmental Assessment prepared by Planning Workshop Australia, the Director General issued Environmental Assessment Requirements for the EA on 20 October 2006 (see **Appendix 6**). The Applicant submitted a revised Concept Plan in August 2007. Following this the Department issued additional comments and subsequent additional requirements relating to Aboriginal Heritage and climate change.

The project involves the development of the site for urban purposes which is composed of (i) a 280 lot, low density residential subdivision and associated works, providing for increased residential densities to satisfy the demand for quality residential accommodation within the Coffs Harbour LGA; and (ii) the restoration of the natural environment adjacent to and throughout Sandy Beach North. The result is the creation of a liveable residential community, with appropriate regard to the landscape.

Key issues identified by the Director General and discussed within the EA relate to Subdivision Design and Layout; Flora and Fauna; Conservation Areas and Reserves; Coastal Zone access and impacts; Water Cycle Management and Impact in Watercourses; Earthworks and Filling; Hazard Management and Mitigation; Infrastructure Provision; Traffic Management and Access; Noise; Infrastructure Provision; Heritage; and Land Ownership.

From the assessment of the proposed development having regard to these key issues, it is considered that the Minister for Planning may reasonably form the opinion that the proposed development satisfies the relevant provisions of the Environmental Planning and Assessment Act 1979, relevant environmental planning instruments and the Development Control Plans of Coffs Harbour City Council. It is therefore recommended that the application is determined by the granting of approval.

## 2.1 Project Team

A number of specialist consultants were engaged to provide assistance with the Project. These consultants include:

PROJECT TEAM	
John Holland Landscape Architecture	Master Planning, Landscape Architecture and Urban Design
Planning Workshop Australia	Planning
Deacons	Legislative Compliance
Mark Hurcum Design Practice	Architecture
Worley Parsons (formerly Patterson Britton and Partners)	Flooding, Surface Water Management, Coastal Processes and Climate Change Implications
Conacher Travers	Flora and Fauna
Conacher Travers	Bushfire
SKM	Noise
Dynamic Properties	Subdivision Community Title
Mary Dallas and Dan Tuck	Cultural and Aboriginal Heritage
Coffey GeoSciences	Geotechnical and Ground Water
Asquith deWitt	Surveying
Charles Hill	Consultant Planning Advice
Mark Waugh Pty Limited	Traffic

Planning Workshop Australia, in preparing the EA, has relied upon the information contained in the Section 149 Certificate issued by Coffs Harbour City Council and dated 21 July 2008 (**Appendix 9**), on relevant information contained in the specialist technical reports prepared by the above listed Project Team members engaged by the proponent, and instructed by the Project Manager John Oliver. The members have certified as to the currency and accuracy of the material contained in their reports. Planning Workshop Australia does not, and cannot accept responsibility for any errors or omissions in the material prepared and provided by the consultants.

### 3 THE SITE

#### 3.1 Site Details

The site is legally described as **Lot 22 in DP 1070182** and has a street address of Pacific Highway, Sandy Beach North, and **Lot 497 DP 227298** with a street address of 15 Pine Crescent, Sandy Beach.

Lot 22 has an area of approximately 49.59 hectares and is currently undeveloped. Lot 497 is developed with a residence which will be demolished to permit access from Pine Crescent. Lot 22 is zoned part **Residential 2A Low Density (28.5 hectares)**, part **Residential 2E Tourist (8.5 hectares)**, part **Environmental Protection 7A Habitat and Catchment (9.5 hectares)**, part **Environmental Protection 7B Scenic Buffer (2.1 hectares)** and part unzoned (0.9 hectares) under the provisions of **Coffs Harbour Local Environmental Plan 2000 (CHLEP 2000)**. Lot 497 is zoned Residential 2A.

The site is generally flat with several pockets of open woodland cover. The remainder of the site is comprised of scattered, lightly spaced canopy with a low, grassy under storey. Key natural site features include Hearn's Lake and lagoon estuary with adjacent vegetated coastal strip and beachfront.

The area consists of relatively low lying, flat to gently undulating land to the west of Sandy Beach. The dune system bordering the eastern property boundary is heavily modified (a result of sandmining activity) and is heavily colonised with weed species, including *bitou* bush and lantana.

West of the dune, the landscape is near flat and dominated by dense pasture grass interspersed with stands of open woodland. The shallow southern arm of Hearn's Lake and its tributary Double Crossing Creek, mark the northern margins of the site. The lake itself forms part of a localised wetland. Soils within the study area vary from east to west grading from medium grey, loamy sand (immediately west of the dune system), to grey-black silty loam and alluvium.

The general site location and a site survey plan appear as **Figures 1 and 2**.

#### **Zoning History of the Site**

On 22nd April, 1988 Coffs Harbour Local Environmental Plan 1988 was gazetted (the 1988 LEP) the provisions of the 1988 LEP the site was zoned Part 2 (a) Residential (Living Area) and Part 7 (b) Environmental Protection (Secondary).

The "Aim" of the 2 (a) Residential (Living Area) Zone was:

*"to identify land suitable for residential, tourist and other urban living area purposes".*

The Objectives of the zone included:

*“(b) to enable the development of land within this zone for purposes which are considered to be desirable land-uses within the urban living area where the scale, height, type and traffic generating characteristics of the development are compatible with the character and amenity of an urban living area and with existing or a proposed nearby development; and*

*“(c) to enable the development of land within this zone for tourist, open space and recreation purposes”.*

The “Aims” of the “7 (b) Environmental Protection (Secondary)” zone were

*“(a) to identify land which it is desirable to preserve as a buffer,*

*(b) to maintain and enhance the ecological or scenic quality of that land”. The “Objectives “ of the zone included “(a) to enable development of land within this zone only for purposes where it can be shown that the activity will maintain or enhance the ecological or scenic quality of the land for the purposes of a buffer;*

*(c) to enable the development of land which does not include inappropriate access to or from roads adjoining the zone”.*

After the making of the 1988 LEP, the Council prepared and adopted Development Control Plan No. 1 (DCP 1). DCP 1 came into force on the day of the gazettal of the 1988 LEP.

In 1995 the North Coast Planning Strategy was prepared to provide a format in which to make decisions about growth and development and to co-ordinate service provisions and resource allocation by Commonwealth, State and Local Governments.

The strategy envisaged a population of 104,000 in the coastal strip and identified a number of future urban areas. One such area identified to accommodate the future growth was the Sandy Beach Locality.

In 1996 the Urban Development Strategy was adopted by Council to guide the growth of the City over the next 25 years. This plan provided for the development of Coffs Harbour Coastal strip from Arrawarra to the north and Bonville to the south in the year 2001.

In April 2000, Coffs Harbour Local Environmental Plan 2000 was gazetted (the 2000 LEP). In essence, the 2000 LEP confirmed that the area shown as “Part 2E Residential Tourist Zone” in the northern section of the site was identical to the area shown on the Map to DCP No. 1. It maintained the Residential zone for the southern section of the site. It maintained the 7 B zone for the buffer area to the Pacific Highway and rezoned that part of the site along the edge to Double Crossing Creek and to Hearn's Lake from 7 (b) to 7A Environmental Protection Habitat and Catchment”.

In September 2001 Council resolved to exhibit the Draft DCP in respect of 2E Residential Tourist Zone at Hearn's Lake. Council has prepared a series of plans which is composed of the following: Vegetation Strategy; Draft Local Vegetation Management Plan; Draft Vegetation Conservation Development Control Plan Preliminary draft Regional Vegetation Management Plan; and Advisory notes.

The proposed development, as described above, with its mix of residential and significant emphasis on establishing half of the site as an environmental protection and open space area, is considered to be compatible and complimentary to these planning strategies.

It is also noted that the Council has resolved to prepare and has exhibited Draft Local Environmental Plan Amendment No. 29 – Hearn's Lake. This remains a draft local environmental plan and has not been gazetted. Under the provisions of the Draft LEP, virtually four fifths or approximately 80% of the site is proposed to be rezoned 7A. The Applicant, through its legal and technical advisors, has made representations to the Council and to the Department regarding the accuracy of an important component of the technical information, namely the Vegetation Mapping, which the Council has relied upon in the preparation of the Draft LEP. This issue is also an important component in the material relied upon by the authors of the Sainty Report (**Appendix 10**). Comment on this point is to be found in the response to Key Issue No.1.

It is noted that under "Open Space Areas: Conservation Management", the Council "requires land dedication of Open Space/Conservation areas rather than land purchase". As has been pointed out in other sections of this EA, the Applicant proposes a "dedication of some 49% of the site". This component of the proposed development has been integral to the design as early as 2004.

### 3.2 Locality

The site is located on the NSW mid-north coast, on the eastern side of the Pacific Highway about 3 kilometres south of the North Coast town of Woolgoolga. It is some 16 km north of Coffs Harbour and approximately 570km north of Sydney. It is situated immediately north of the village of Sandy Beach and incorporates the land between the Pacific Highway and Hearn's Lake Beach. The southern shoreline of Hearn's Lake effectively forms the northern boundary of the site.

The site is irregularly shaped with a southern boundary of approximately 701 metres to the low density residential settlement of Sandy Beach, a frontage to the Pacific Highway along the western boundary of 1,049 metres, and an irregular frontage to Hearn's Lake which runs along the northern and north western boundary. It has almost one kilometre of beach frontage to the eastward boundary.

The site is located in the "coastal zone" within the **NSW Coastal Policy**, being less than 1 kilometre from the South Pacific Ocean.



### 3.3 Regional Context

Coffs Harbour is situated on the Mid-North Coast, midway between Sydney and Brisbane. The area is well serviced by road, with the Pacific Highway the principal north south road corridor; rail, with Coffs Harbour Station being situated on the North Coast railway; and air with Coffs Harbour Airport.

The Coffs Harbour LGA contains 50 km of scenic coastline and is a diverse region which includes a coastal setting with a hinterland of rural and forested areas. It is this diversity of environs, the coastal lifestyle available, and its proximity to transport infrastructure and services that has contributed to making the region a population tourist and residential destination reflected in the population projections contained at **Section 5** below.

### 3.4 Surrounding Land Uses

The land adjoins the northern boundary of the existing low density residential settlement of Sandy Beach, and extends northwards along the eastern boundary of the Pacific Highway. Double Crossing Creek and Hearnese Lake form the northern boundary of the property. Land further west of the site across the Pacific Highway and directly to the north over Hearnese Lake and Double Crossing Creek is zoned Residential Tourist 2E. The land zoning directly east of the subject site is zoned Open Space Public Recreation 6A (refer **Figure 3**).

### 3.5 Historic Land Use Ecological Assessment

A historic land use ecological assessment of the site has been undertaken by Conacher Environmental Group and outlined in their report titled *Historical Land Use Ecological Assessment Report – Sandy Beach North* (refer **Appendix 11**). The assessment provides an overview of the nature of fauna and habitats for pre-settlement and post European occupation (*Appendix VI - Historical Land Use Ecological Assessment Report – Sandy Beach North pp5-8*):

*The habitats and fauna within the site pre-settlement would be typical of that found within the low lying vegetation types of the coastal zone. Given the likely diversity of vegetation community type (Eucalypt Forest, Swamp Sclerophyll Forest, Wet Wallum Heath, Dry Coastal Heath, Sedgeland) the habitats present would provide suitable foraging, refuge and breeding resources for a relatively diverse range of local fauna. Given the known threatening processes caused as a result of anthropogenic impacts (habitat clearing, exotic species, altered fire regimes etc) it is considered that abundance and diversity of those species occurring within the site immediately prior to European settlement is likely to have been relatively high.*

*The Atlas of NSW Wildlife (DEC 2007) was used to gather information on historical records of fauna within the Coffs Harbour area. However, the earliest records occur from 1911(two records) with only isolated fauna recordings up to the 1960's. Thus an accurate identification or estimate of the fauna species known to occur within the site immediately prior to European settlement is difficult to make.*

*Given the lower amount and degree of disturbance within the coastal reserves of the local area, the fauna record pre-european settlement within the site would have been similar to that currently present within reserves such as Yuraygir National Park, Coffs Coast Regional Park, Moonee Beach Nature Reserve and Bongil Bongil National Park, (pp5).*

In relation to the site's post settlement history:

#### *Pre 1949*

*The initial impacts between 1900s and 1949 are described as minor coastal grazing (Tuck 2007). This is likely to have resulted in only very minor reductions in the natural floristic diversity; however, this grazing will have led to the introduction of a number of the exotic groundcovers transported by stock and potentially the introduction of exotic pasture species depending on the degree of pasture improvement implemented. It appears from aerial photographs that the subject site was not initially subjected to significant logging or clearing.*

#### *1949-1960s*

*Historic records of significant ring barking across the property by the 1960s (Tuck 2007), supported by the changes observed in the aerial photos dated 1949 and 1956, which clearly shows areas of past clearing within the site and significant reduction in the canopy layer. This period is also likely to have been associated with an intensification of grazing and possible pasture improvement resulting in a significant decline in the natural floristic diversity of portions of the Swamp Forests and Eucalypt forests classified as disturbed woodlands in the sites present vegetation mapping (Conacher Travers 2006).*

*These areas are likely to have had a reduction in the natural groundcover layers, particularly the small perennial herbs and terrestrial orchid species which are affected by the soils compaction from hard hoofed stock and competition from the incursions from exotic species.*

*The introduction of large scale clearing of the tree and shrub layer is likely to have had significant impact in the form of a reduction in the type, amount and quality of habitat. The removal of trees and shrubs will have decreased the amount of foraging habitat for bird and arboreal mammal species. The loss of mature and senescing trees will have decreased the amount of nest, den and breeding sites for hollow dependent fauna. The decrease in the tree and shrub layers would also have increased the vulnerability of fauna to predation. The introduction of grazing cattle, and most probably rabbits, is also likely to have had competitive effects upon native grazing species.*

*Due to these alterations and decreases in habitat type and quality the diversity of those native species within the site is likely to have shifted to a predominance of those species with adaptive qualities and a decrease in those native fauna species susceptible to the effects of habitat loss, predation and increased competition.*

## 1960s to Present

By the end of the 1960s to early 1970s the agricultural activities of clearing and grazing appeared to have intensified, resulting by 1974 in the extent of the sites remnant vegetation largely being representative of the present day vegetation. The intensification of the sites agricultural activities would have resulted in the sites Forest and Swamp Forest communities being further degraded due to the reduction in structural complexity, particularly through the removal of the shrub layers via slashing and the floristic simplification of the understorey due to increased grazing. While the impacts of the sites clearing and agricultural use had largely peaked by the mid 1970s (Tuck 2007), a number of additional activities have further reduced the condition of parts of the sites existing remnant vegetation, habitats and fauna.

The first of these was the commencement and associated impacts of the sand mining operation along the site eastern boundary before 1970. This operation is likely to have had significant impacts on the sites remnant coastal dune vegetation described as Low Forest in the vegetation mapping (Conacher Travers 2005). This community would have been subjected to severe disturbances including clearing, construction of an access road, edge effects, compaction, erosion and the likely incursion of the significant coastal weeds *Chrysanthemoides monilifera* subsp. *monilifera* (Bitou Bush) and *Lantana camara* (Lantana) during the post mining landscape. The removal of native vegetation and incursion and dominance of exotic species is likely to have decreased the diversity of native fauna species.

The second was construction of the Pacific Highway and associated infrastructure by the 1980s along the sites western boundary. This construction would have further reduced the extent of the remnant Forest community and increased the edge effects and weed distribution throughout the western portion of the site. The construction of the Pacific Highway will also have reduced the fauna habitat quality and function of the site by increasing partial local fragmentation of the landscape and isolation limiting terrestrial, and possibly arboreal, fauna movement in an east west direction between the subject site and lands to the west of the site.

The third was the construction of the Sandy Beach Development to the south of the subject site, which is likely to have led to an increase in the spread of exotic species and edge effects along the southern boundary of the site. More importantly however were the impacts of the canals cut through the southern portion of the subject site as part of the Sandy Beach development drainage strategy. The subsequent regrowth Swamp Oaks restricted to the backs of these canals, are a direct result of their construction, however these drainage lines are not considered to have significantly altered or influenced the type and condition of the vegetation within the larger area surrounding the canals. These areas were likely to have been occupied previously by similar swamp forest communities already associated with the poorly drained soils around the southern parts of Hearn's Lake.

Their conclusion is that the majority of the site has been significantly impacted particularly by the history of agricultural activities and land use activities.

*The site has undergone an amount of disturbance since the commencement of European settlement in the district. This disturbance, particularly grazing and clearing, is has altered the condition of the vegetation within the site in comparison to those disturbed pre-settlement landscapes. This has, in turn, altered habitat type, extent and quality which has had flow on effects on the biodiversity of the native fauna within the site.*

*Based on a comparative analysis of the findings as set out above, it is considered that the condition of the vegetation, habitats and biodiversity values are lower when compared to that which was present within the site at the time of pre European settlement, occupation and land use within the locality.*

This essential understanding of the historic land use impacts on the site is important in appreciating the overall approach to the urban development of the site, and the approach to the large areas proposed as conservation areas within the subject site as reflected in the Concept Plan.

#### **4 SITE ANALYSIS**

A comprehensive site analysis has been carried out by John Holland Landscape Architecture in accordance with the requirements as set out in the Director Generals Requirements. The site analysis is incorporated as **Appendix 1** as required by the Director General's Requirements – Point 2 of Attachment 2. The Site Analysis incorporates a detailed Plan indicating, amongst other matters, the extent of exiting vegetation; the coastal hazard line; and Aboriginal Heritage Sites (including site identified as ISF2).

## 5 JUSTIFICATION FOR UNDERTAKING THE PROJECT

The Mid-North Coast (of which Coffs Harbour is part) offers a high quality living environment, providing access to desirable beachside settings, and good access to services and other lifestyle needs. In recognition of these attributes, the numbers of people deciding to settle in the region each year to enjoy the lifestyle is increasing, with the population of the region expected to increase by more than 91,000 people over the next 25 years<sup>2</sup>.

In responding to this demand, there is an urgent need to plan for quality residential development to cater for the needs of the incoming population. In this regard, given the environmental considerations that need to be addressed in this part of the State, sound environmental planning is critical. To effectively manage this growth with respect to infrastructure, resources and environmental capacity, Coffs Harbour City Council has identified within its Interim Settlement Strategy the need to encourage consolidated development in key locations.

Further, the site is identified in the Department of Planning's Mid-North Coast Regional Strategy map as a Growth Area.

The proposed component of residential development in the Concept Plan application has been designed as a sustainable urban form to meet the needs of the incoming population. The proposed density on the site meets the demand for residential dwellings in a well located, accessible area, while at the same time reserving some 49% of the site for open space and conservation purposes, in response to the landscape and ecological values of the Hearne's Lake area. This is in addition to the areas of landscaping that will be required in each of the allotments. The Concept Plan incorporates a development outcome which responds to the potential impacts of climate change and its predicted impacts on the local environment.

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<sup>2</sup> Department of Planning "Mid-North Coast Regional Strategy" p1.

## 6 THE PROPOSAL

### 6.1 Development Details

Concept Plan approval is sought for the development concept of a community title subdivision for residential development at Sandy Beach North incorporating the following elements:

- The indicative general layout into four residential development precincts, enabling the creation of up to 280 residential allotments;
- Indicative general layout of roads, pedestrian and cycle access ways; road connections and beach access pathways;
- Indicative architectural concepts incorporating 6 building types;
- Landscape concept;
- Noise attenuation;
- Recreational open space;
- Provision of ecological buffers and environmental protection areas;
- Vegetation and habitat management concept;
- Foreshore management concept;
- Bushfire management and protection; and
- Stormwater management concept.

Subsequent approvals will be sought for subdivision, roads, earthworks and implementation. The development is proposed to be staged over 6 years and in 6 stages – subject to market demand.

### 6.2 Overall Design Approach

A description of the Concept Plan proposal and the design approach is outlined in detail in the **Urban Form and Landscape Concept Report** prepared by John Holland Landscape Architecture which is attached as **Appendix 2**. The following excerpt outlines, in summary, the approach taken (pp1):

*This proposal serves to provide a high quality, environmentally responsible residential development, whilst enabling the improvement of the environment of the lake system through implementation of best practice in Water Sensitive Urban Design (WSUD). Fundamental to the development process is the preservation and long-term management of Hearn's Lake and its surrounds.*

*The analysis of opportunities and constraints for the site has been integral in the concept planning process, with appropriate consideration of flooding, riparian setbacks, flora and fauna and planning issues, with a number of development options for the site were considered.*

*Integral to this was adopting a principal philosophy of providing a framework for integration of natural and human settings, while at the same time ensuring the long term sustainable management of Hearn's Lake and the coastal zone.*

*The design of the proposed development has been formulated following an extensive level of detailed analysis of the environmental attributes of the site and its context and setting. The site provides an opportunity for a sensitive coastal residential development which both respects the site's ecology, whilst creating a vibrant residential community.*

*The implementation of the vision for Sandy Beach requires a sound understanding of the physical attributes of the site, as well as an understanding of the regulatory planning framework. That understanding is clearly present in the scope of the technical reports of their authors who have investigated and analysed the site and provided findings and recommendations regarding the parameters for the design of the proposed development.*

*This concept plan is a dynamic framework for delivering our vision for Hearn's Lake. It establishes a clear structure for the scale and mix of development, infrastructure, community facilities and features*

In response to the recommendations incorporated in the Department of Planning's Supplementary DGRs (**Appendix 7**), the subdivision layout incorporates consideration of potential climate change impacts, and in doing so incorporates a setback from Hearn's Lake (an identified Intermittently Closed and Open Lake or Lagoon – ICOLL) sufficient to enable its expansion due to sea level rise predictions to the Year 2100; and a setback at Hearn's Lake Beach with regard to an assessment of the 'coastline hazard line' to the year 2100.

### **6.3 Residential Layout and Design**

The Concept Plan layout for the proposed subdivision is outlined in detail in Part 2 of the **Urban Form and Landscape Concept Report (pp5-7)**. The Plan proposes the establishment of four distinct residential precincts connected by open space, vegetation and drainage corridors. The land proposed for residential development is separated from Hearn's Lake (and the foreshore) by significant areas of open space and land set aside for environmental

protection. The development pattern will form significant buffers between the residential lands and the lake, and the coastal edge.

The indicative residential subdivision will enable the creation of up to 280 lots varying in size from 400 m<sup>2</sup> square metres to 2000m<sup>2</sup>. As described in the designer's statement the four precincts are (pp5):

- *beach precinct centrally located on the eastern edge of the site between the lake and beach front,*
- *southern precinct between the southern end of the lake and the existing Sandy Beach residential development,*
- *south-western precinct located between the western edge of the lake and Pacific Highway, and*
- *northern precinct between the northern portion of the lake, Double Crossing Creek and Pacific Highway.*

Approximately half the site has been set aside for the purposes of open space and environmental protection. A key objective of the design and layout has therefore been *"to retain areas that are undisturbed and to re-vegetate areas that have been disturbed, with the aim to reinstate and conserve indigenous vegetation and maintain biodiversity"*. In doing so the Concept Plan incorporates the following features (pp5):

- *generous riparian setbacks from the lake's edge,*
- *retention of visually significant stands of vegetation, which are intended to be focal points within the layout,*
- *protection and enhancement of drainage lines and associated vegetation and habitat for Wallum Froglet species,*
- *all open space areas, which includes the riparian zones and stands of trees to be retained are to be bordered by road [and pathway] edges,*
- *development generally has been restricted to those flatter and higher areas with minimal tree cover, thereby minimising impacts to the overall site, particularly sensitive lake and riparian areas.*
- *improving beach access, management of the coastal dune system, and protecting the vegetated coastal edge*

The siting and design of the proposal described in the Concept Plan aims to minimise impacts upon *"the terrestrial, estuarine or wetland communities, as the majority of*



*these plant communities are to be retained. The development has been designed, to protect existing plant communities on the site".*

## 6.4 Indicative Street Layout

The Concept Plan proposes a street and path layout that is consistent with the Department of Planning's Coastal Design Guidelines to achieve a permeable, walkable, accessible and safe street pattern. In doing so, the Concept Plan responds to the site topography and the access requirements for both the proposed development and to the foreshore. The proposed street layout is detailed in **Part 4.7 of the Urban Form and Landscape Concept Report at Appendix 2**, and the **Traffic Impact Assessment** prepared by **Mark Waugh Pty Ltd** (refer **Appendix 15**).

The Concept Plan incorporates the following aspects:

- Two vehicular and pedestrian access points from Sandy Beach – to the south-east at Ti Tree Road, and the south-west at Pine Crescent.
- Vehicle access at the north west of the site to the Pacific Highway (proposed to be provided on construction of the future road upgrade of the Pacific Highway).
- A hierarchy of internal roads that will provide appropriate access to the individual residential lots. The hierarchy incorporates a main collector road, local and minor local roads and shared ways.
- A network of footpaths and cycle ways including access to the beach and Hearn's Lake.
- Capacity of the network to enable public bus movements.

The layout achieves a key objective of the *Coastal Design Guidelines*, that is, to define and protect the natural edge through the provision of an edge road to the west and south precincts.

## 6.5 Indicative architectural concept

The Concept Plan incorporates 6 conceptual architectural zones and building types developed by Mark Hurcum Design Practice. The building types and their location are outlined in Part 3 of the **Urban Form and Landscape Concept Report at Appendix 2**. The building types respond to locational characteristics, views, lot size and the aim to provide a range of housing types, and are proposed as:

- Large lot and beach subzone types:
- Edge subzone (single storey):

- Edge subzone (2 storey):
- Boundary subzone:
- Townhouse subzone:

All buildings types are proposed at no greater than two storeys with a maximum building height of 8.5 metres. It is proposed that colour and material types would apply, and built form guidelines be established to ensure consistency in architectural outcomes across the whole of the development. To ensure adherence to the stated desired future design outcome it is proposed to establish a design panel to review proposals prior to lodgement of development applications (refer **Urban Form and Landscape Concept Report** attached at **Appendix 2** for a detailed discussion in relation to the design panel).

## 6.6 Landscape concept

A **Landscape Concept Plan** prepared by John Holland Landscape Architecture is incorporated in the **Urban Form and Landscape Concept Report** attached at **Appendix 2**. The landscape setting is considered to be the major defining element of the proposal. The following description has been taken that report, and provides a succinct outline of the landscape principles underpinning the design approach (p18):

- *maximising entrance to the site that captures its essential qualities or sense of place,*
- *an innovative water management scheme that counterpoints constructed and 'natural' waterways; expresses the site's water management strategy, offers ornamental value and modifies microclimate,*
- *an open space network will connect to the lake and beach and provide an exciting recreational experience and vivid natural backdrop,*
- *retaining natural creek lines,*
- *reforming natural creek lines currently contained by concrete lining,*
- *retaining and management of riparian edge,*
- *retaining back of sand dune, managing and limiting development,*
- *roads to be shared vehicle/pedestrian,*
- *landscape treatment at each side of the road verge to screen housing, creating sense of coastal heath and open woodland,*
- *development will be separated from riparian zone by road and with 2.5m wide path,*
- *landscape strip between path and lot, and fencing at riparian edge to be open and unobtrusive i.e. timber post and rail or two stands of wire and no rail.*

An indicative plant schedule is also provided at pages 34-35 of the **Urban Form and Landscape Concept Report** indicating the use of an extensive indigenous plant list.

In relation to tree retention, it is intended to retain all vegetation within the 'riparian zone' and at the Hearn's Lake edge. Within the Hearn's Lake edge open space areas, tree removal is to be limited only to areas subject to earthworks. Within the residential areas, selective tree removal is proposed to enable road constructions, earthworks and residential building (refer to Figure 25 of the **Urban Form and Landscape Concept Report – Appendix 2**).

## 6.7 Noise attenuation

A Noise Assessment has been undertaken for the site by Sinclair Knight Merz and is included at **Appendix 16**. Their assessment outlines a strategy to mitigate the impacts of road traffic noise impacts on the future residents along the western boundary of the site adjacent to the Pacific Highway. This includes the following measures:

- A 4 metre high noise barrier incorporating an acoustic wall and landscape treatment along the western perimeter boundary;
- Proposed architectural controls in relation to the treatment of dwellings located adjacent to the western perimeter boundary including masonry walls to the western facades; double glazed fixed windows; noise insulation within the ceiling.

## 6.8 Recreational open space

The proposed open space areas have been integrated into the Concept Plan layout. They are illustrated in the subdivision concept layout in the **Urban Form and Landscape Concept Report**.

In relation to recreational open space, the aim of the Concept Plan is described as follows (pp20):

*The open space to provide opportunity for a variety of facilities and are of practical dimensions to achieve the recreational / landscape role intended, catering for family use (playgrounds, kickabout with support facilities shaded seating, and some parking)*

*Playgrounds will be designed play spaces, utilising a combination of standard 'off the-shelf' equipment and landscape feature elements that will assist in integrating the space with the surrounding parklands. Play spaces will cater for all age groups.*

*In addition the open space will cater for personal fitness (walking, cycling, jogging, exercise).*

## 6.9 Provision of Ecological Buffers & Environmental Protection Areas

A key element in the response to the constraints and opportunities of the site is the retention of 49% (24 hectares) of the site as environmental protection areas and open space. These areas, focussed adjacent to the ICOLL of Hearn's Lake, fulfil an important role

of an ecological buffer between the residential development, the sensitive vegetation and habitat types within Hearn's Lake, and the lake itself. They incorporate perimeter emergency access and an asset protection zone. The areas set aside for environmental protection includes those areas considered more ecologically sensitive within Hearn's Lake and its nearshore area.

#### **6.10 Vegetation and habitat management concept**

It is proposed to implement vegetation and habitat management planning programmes, including rehabilitation and restoration, to ensure the ecological values of the environmental protection areas are maintained (refer to the **draft Environmental Site Management Strategy** prepared by **Conacher Environmental Group – Appendix 12**).

The **draft Environmental Site Management Strategy** includes the following key elements:

- Vegetation Management
- Bushfire Management
- Provision of Ecological Buffers
- Erosion and Sediment Control
- Stormwater Quality and Management
- Cultural Heritage Values and Management
- Community Education, Vigilance and Reporting
- Prohibited Use Identification and Management
- Native Fauna, Habitat and Feral Pest Management
- Access, Signage and Fencing
- Monitoring and Reporting Regime

#### **6.11 Foreshore management concept**

The restoration and ongoing management of the areas within the site adjacent to the foreshore is proposed to be carried out in consultation with the Council and the local community.

The management concept (refer to **Urban Form and Landscape Concept Report – Appendix 2**) is to incorporate pedestrian access to the beach area through the dunes via fenced walking tracks, utilising elevated timber steps/boardwalks where applicable to minimise erosion.

The pedestrian access tracks are proposed at a maximum width of 3m, wide enough to provide both safe public access whilst minimise actual footprint over the dune area.

These tracks will also be utilised for emergency access, with direct access to the north-south public road. Car parking will be restricted to the roads servicing the proposed development, with dedicated parking bays adjacent to pedestrian access point.

Intrinsically, they will involve minimal disturbance to established coastal vegetation and will involve the retention of existing beach dune crest elevations. The pathways will provide new opportunities for controlled public access to the foreshore to the beaches of Sandy Beach to enable existing residents and visitors to enjoy the amenity it offers.

## **6.12 Bushfire management and protection**

**Conacher Environmental Group** has prepared a **Bushfire Assessment Report – Appendix 13** which outlines the bushfire protection strategies proposed for the residential subdivision. The strategy includes (pp11-12):

- The establishment and maintenance of an Asset Protection Zone (APZ);
- Dwellings on the outer edge of precincts that face a bushfire to be constructed to Level 2 Construction Standards (AS 3959) and for other dwellings within 100 metre of a bushfire hazard to be constructed to Level 1 Construction Standards (AS 3959)
- Regular inspections and maintenance of the APZs within the subject site
- Provision of leaf barriers on gutters and roof valleys
- Installation of wire mesh screens on all doors and windows that directly face a bushfire threat.

## **6.13 Stormwater management concept**

A comprehensive water quality management strategy has been prepared for the site by consultants Worley Parsons. Their report is attached at **Appendix 17**. The strategy incorporates a system of approximately 4 kilometres of bio-retention swales generally located along roadway verges feeding three water quality control ponds (WQCPs). The WQCPs have sufficient capacity to incorporate a flood storage component. Rainwater harvesting from dwelling roofs is also proposed.

The combined effect of the strategy is to improve the quality of stormwater runoff than is currently discharged to the lake, and 'ensure that runoff is of a quality that will not adversely impact on the lake hydrology and associated ecosystem'.

## 7 STATUTORY AND PLANNING CONTEXT

### 7.1 Environmental Planning and Assessment Act 1979

The Environmental Planning and Assessment Act 1979 (EP&A Act) provides for a system of environmental assessment and planning for development in NSW. The Act establishes a hierarchy of planning instruments which zone land and regulate specific types of development across the State.

The EP&A Act is the principal environmental planning legislation controlling the development of land in NSW. All State Environmental Planning Policies (SEPPs) and Local Environmental Plans must be consistent with the objects and controls contained within the Act. They include:

- the management, development and conservation of natural and artificial resources,
- the promotion and co-ordination of the orderly and economic use of land,
- protection, provision and co-ordination of communication and utility services,
- provision of public purposes,
- provision and co-ordination of community services and facilities,
- ecological sustainable development, and
- the provision and maintenance of affordable housing.

The Concept Plan Proposal satisfies the objects of the EP&A Act, and in particular the orderly and economic use and development of land.

Part 3A of the EP&A Act provides for a special approval process for projects identified as major infrastructure or other development which has State or regional environmental planning significance. If a project is, in the opinion of the Minister, a major infrastructure or a development of significance, it can be declared a Part 3A development. In this case, the application is to be made to the Minister, and the Minister will be the determining authority.

#### 7.1.1 Application of Part 3A

The Director General, as delegate of the Minister, by letter dated 16 December 2005 advised that he had formed the opinion that this was a project to which Part 3A applies (see **Appendix 22**).

The proposed development is a project to which Part 3A of the Act applies through **Clause 6 of State Environmental Planning Policy (Major Projects) 2005** ('the SEPP'). This is effected through **paragraph 1(j) (i) of Schedule 2** of the SEPP because the proposed

development, comprises subdivision for residential purposes of land into more than 25 lots, on a site which is within the 'coastal zone', as defined in the **Coastal Protection Act**.

### **7.1.2 Environmental Planning and Assessment Regulation 2000 (EP&A Reg)**

The Environmental Planning and Assessment Regulation 2000 (EP&A Reg) provides for additional requirements and addresses other matters relevant to the EP&A Act.

Clause 8F of the EP&A Reg requires owner's consent to be provided for a project application under Part 3A of the EP&A Act, unless one of a number of exceptions apply. The exceptions are not applicable in this instance and therefore owner's consent is required to be obtained at any time prior to the determination of the application. Owners consent is attached at **Appendix 23**.

### **7.1.3 State Environmental Planning Policies**

The Director General's Environmental Assessment Requirements issued on 20 October 2006 identified that the Concept Plan Application should address relevant provisions of Environmental Planning Instruments (i.e. State Environmental Planning Policies (SEPPs); Relevant Regional Strategic Plans and Relevant Local Plans).

State Environmental Planning Policies (SEPPs) which apply to the site include:

- State Environmental Planning Policy No.1 – Development Standards
- State Environmental Planning Policy No. 4 – Development Without Consent and Miscellaneous Exempt and Complying Development
- State Environmental Planning Policy No. 6 – Number of Storeys in a Building
- State Environmental Planning Policy No. 14 – Coastal Wetlands
- State Environmental Planning Policy No. 15 Rural Land Sharing Communities
- State Environmental Planning Policy No. 21 – Caravan Parks
- State Environmental Planning Policy No. 22 – Shops and Commercial Premises
- State Environmental Planning Policy No. 26 – Littoral Rainforests
- State Environmental Planning Policy No. 30 – Intensive Agriculture
- State Environmental Planning Policy No. 32 – Urban Consolidation (Redevelopment of Urban Land)
- State Environmental Planning Policy No. 33 – Hazardous and Offensive Development
- State Environmental Planning Policy No. 36 Manufactured Home Estates
- State Environmental Planning Policy No. 45 – Permissibility of Mining
- State Environmental Planning Policy No. 50 – Canal Estate Development
- State Environmental Planning Policy No. 55 Remediation of Land
- State Environmental Planning Policy No. 62 – Sustainable Aquaculture Encourages the sustainable expansion of the industry in NSW
- State Environmental Planning Policy No. 64 Advertising Signage
- State Environmental Planning Policy No. 65. Design Quality of Residential Flat Development

- State Environmental Planning Policy No. 71 Coastal Protection
- State Environmental Planning Policy (Housing for Seniors or People with a Disability) 2004
- State Environmental Planning Policy (Building Sustainability Index: BASIX) 2004
- State Environmental Planning Policy (Major Projects) 2005
- State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007
- State Environmental Planning Policy (Temporary Structures and Places of Public Entertainment) 2007
- State Environmental Planning Policy (Infrastructure) 2007
- State Environmental Planning Policy (Rural Lands) 2008

The assessment of the proposal against the *relevant* SEPPs summarised below concludes that it is consistent therewith.

#### **7.1.4 State Environmental Planning Policy No. 14 (Coastal Wetlands)**

The aim of this policy is *“to ensure that the coastal wetlands are preserved and protected in the environmental and economic interests of the State”*. The site does not contain any coastal wetlands.

#### **7.1.5 State Environmental Planning Policy No. 26 (Littoral Rainforests)**

The aim of this Policy is to provide a mechanism for the consideration of applications for development that is likely to damage or destroy littoral rainforest areas with a view to the preservation of those areas in their natural state. The site does not contain any identified littoral rainforest.

#### **7.1.6 State Environmental Planning Policy No. 44 (Koala Habitat)**

This policy aims to encourage the conservation and management of natural vegetation areas that provide habitat for koalas. The policy does not apply to the Coffs Harbour Local Government Area (refer Schedule 1 of SEPP 44). It should be noted however that an assessment has been carried out in accordance with the Coffs Harbour Koala Plan of Management. The results of this assessment are addressed at **Section 8.3.3** and at **Appendix 11**.

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

The relevant planning instrument for consideration with respect to contamination is **State Environmental Planning Policy No. 55 – Remediation of Land, (SEPP 55)**, which deals primarily with contaminated land and its remediation. In accordance with this policy, no consent authority may grant consent to the carrying out of any development, unless it has considered the possibility of the land being contaminated and in the case of contamination, its suitability (after remediation) for the purpose proposed in the development application. The policy applies to the whole of the State.



**Clause 7 (2)** of the Policy states that before determining an application for consent to carry out development that would involve a change of use on any of the land specified in subclause (4), the applicant must provide a report in accordance with the contaminated land planning guidelines for the consideration of the consent authority.

The Applicant retained Coffey Geosciences Pty Ltd to advise on this matter. A copy of their report is attached at **Appendix 24**. Their report concludes (pp6):

*Based on a walkover assessment during field work, the site does not appear to have been developed for any particular use apart from possibly grazing animals. No obvious signs of soil contamination were observed during the walkover assessment or during excavation/drilling of test pits/boreholes.*

*The site is currently zoned for low density residential and tourism purposes, with the surrounds of Hearn's Lake zoned for environmental protection.*

*Based on there being no signs of contamination or potentially contaminating developments observed at the site, and the current zoning, it is our opinion that there is a low likelihood of significant concentrations of contaminants being present on the site. Areas of potential contamination, if any, would be likely to be isolated and result from minor spills and leaks from vehicles, plant or containers, or past agricultural use.*

#### **7.1.8 State Environmental Planning Policy No. 71 - Coastal Protection (SEPP 71)**

**State Environmental Planning Policy No. 71 - Coastal Protection (SEPP 71)** aims to protect and enhance the important coastal environment from inappropriate development. A consideration of the proposals consistency with the strategic outcomes of the policy with respect to the protection of the sensitive coastal environment may be addressed through a consideration of the **Aims** of the Policy (**Clause 2**) and the **Heads of Consideration** at **Clause 8**.

The relevant **Aims** of SEPP 71 outlined in **Clause 2(1)** and an assessment of the proposals against these objects, is provided below:

- a) *to protect and manage the natural, cultural, recreational and economic attributes of the New South Wales coast, and*

The objective of the Concept Application is to achieve the protection and management of the natural, cultural, recreational and economic attributes of the NSW Coast. The design of the development, the environmental approach and the draft Statement of Commitments are specifically aimed at managing potential environmental impacts of the development, will ensure that the coastal locality surrounding the site is suitably protected. The use of existing zoned residential lands at an appropriate density provides for the current and future demand for residential dwellings in the Coffs Harbour LGA, ensuring the continued and on-going vitality of the North Coast, both from a cultural and economic perspective.

- b) to protect and improve existing public access to and along coastal foreshores to the extent that this is compatible with the natural attributes of the coastal foreshore, and*

Access to the coastal foreshore is not currently available from the site.

- c) to ensure that new opportunities for public access to and along coastal foreshores are identified and realised to the extent that this is compatible with the natural attributes of the coastal foreshore, and*

New public accesses to and along the coastal foreshore for pedestrians or persons with a disability are incorporated in the Concept proposal.

- d) to protect and preserve Aboriginal cultural heritage, and Aboriginal places, values, customs, beliefs and traditional knowledge, and*

Two areas of interest are located within the subject site. The management of these sites is discussed in **Section 8.12.1** of this report and in the Aboriginal Archaeological Assessment Sandy Beach North, New South Wales prepared by Mary Dallas at **Appendix 27**.

- e) to ensure that the visual amenity of the coast is protected, and*

The proposal will not detrimentally affect the visual amenity of the coast. This issue is addressed at **Section 8** of the EA.

- f) to protect and preserve beach environments and beach amenity, and*

The visual and scenic amenity of the beach environs has been addressed above and is assessed in further detail at **Section 8** of this EA.

- g) to protect and preserve native coastal vegetation, and*

Refer to **Section 8.3** and the **Ecological Survey and Assessment** prepared by Conacher Environmental Group which addresses the protection and preservation of coastal vegetation.

- h) to protect and preserve the marine environment of New South Wales, and*

As previously stated, the project aims to achieve best practice control and treatment of water runoff from the developed site and to achieve a runoff quality that will not adversely impact on the [Hearnes] lake hydrology and associated ecosystems.

- i) to protect and preserve rock platforms, and*

The Concept Plan will not impact on rock platforms.

j) *to manage the coastal zone in accordance with the principles of ecologically sustainable development (within the meaning of section 6 (2) of the Protection of the Environment Administration Act 1991), and*

The Concept Plan proposal's consistency with the principles of ecologically sustainable development is demonstrated by the following considerations:

- *Precautionary principle*

The proposed development is unlikely to give rise to the threat of serious or irreversible environmental damage.

- *Inter-generational equity*

The proposed development provides appropriate housing stock for use by current and future generations, without resulting in any potential long term environmental impacts which would reduce the quality of life and amenity in the locality.

- *Conservation of biological diversity and ecological integrity*

Will be enacted through the recommendations of the **Ecological Survey and Assessment Report at Appendix 11.**

k) *to ensure that the type, bulk, scale and size of development is appropriate for the location and protects and improves the natural scenic quality of the surrounding area, and*

The type, scale, bulk and size of the development is suitable for the location. The environmental and natural scenic qualities of the locality have been foremost in the design approach to ensure the site is consistent with the aims of the policy in relation to the visual quality of the coastline. Further visual amenity analysis is provided at **Section 8.2.6** of this EA.

Pursuant to **Clause 4**, the Policy applies to land the whole or any part of which is within the coastal zone. The subject site is located wholly within the Coastal Zone.

**Clause 7(b)** of SEPP 71 requires the matters outlined in **Clause 8 – Matters for Consideration** (as follows), to be considered. The relevant matters for consideration under **Clause 8** are:

(a) *the aims of this Policy set out in Clause 2,*

Addressed above.

*(b) existing public access to and along the coastal foreshore for pedestrians or persons with a disability should be retained and, where possible, public access to and along the coastal foreshore for pedestrians or persons with a disability should be improved,*

Access to the coastal foreshore is not currently available from the site.

*(c) opportunities to provide new public access to and along the coastal foreshore for pedestrians or persons with a disability,*

New public accesses to and along the coastal foreshore for pedestrians or persons with a disability are incorporated in the Concept proposal.

*(d) the suitability of development given its type, location and design and its relationship with the surrounding area,*

The site is located on land identified in both the Mid North Coast Strategy and Council's Interim Settlement Strategy as land for future urban development.

The site enables substantial land to be reserved for landscaping and open space providing a buffer to the lands with sensitive environmental values...

*(e) any detrimental impact that development may have on the amenity of the coastal foreshore, including any significant overshadowing of the coastal foreshore and any significant loss of views from a public place to the coastal foreshore,*

The proposed layout will enable low scale residential development that would not overshadow the coastal foreshore.

There are no impacts on views from the coastal foreshore. The analysis of any impact on views from the coastal foreshore is presented at **Section 8.2**.

*(f) the scenic qualities of the New South Wales coast, and means to protect and improve these qualities,*

The proposal will not result in any adverse visual impacts, having been designed to ensure a transitional element incorporating generous setbacks, thereby ensuring the scenic qualities of the New South Wales coast are preserved and protected.

Further visual impact analysis is presented at **Section 8.2**

*(g) measures to conserve animals (within the meaning of the Threatened Species Conservation Act 1995) and plants (within the meaning of that Act), and their habitats,*

The proposal aims to protect enhance and expand the core vegetation communities and seek to reintroduce habitat. Refer **Sections 8.2 – 8.7** which addresses the **Ecological Survey and Assessment** prepared by Conacher Environmental Group (**Appendix 11**).

*(h) measures to conserve fish (within the meaning of Part 7A of the Fisheries Management Act 1994) and marine vegetation (within the meaning of that Part), and their habitats*

The site will be suitably drained and sewered to ensure there is no detrimental impact on the marine environment.

*(i) existing wildlife corridors and the impact of development on these corridors,*

The proposal aims to protect enhance and expand the core vegetation communities and seek to reintroduce habitat. Refer **Sections 8.2 – 8.7** and the **Ecological Survey and Assessment** prepared by **Conacher Environmental Group at Appendix 11**.

*(j) the likely impact of coastal processes and coastal hazards on development and any likely impacts of development on coastal processes and coastal hazards,*

Refer to the response to coastal processes that has been prepared by **Worley Parsons at Appendix 21**.

*(k) measures to reduce the potential for conflict between land-based and water-based coastal activities,*

It is not anticipated that this development on privately owned, zoned “residential” land, separated from the beachfront, will give rise to any conflict between land based and water based coastal activities.

*(l) measures to protect the cultural places, values, customs, beliefs and traditional knowledge of Aboriginals,*

As discussed above, the management of identified sites is outlined in **Section 8.12.1** of this report and in the Aboriginal Archaeological Assessment Sandy Beach North, New South Wales prepared by Mary Dallas at **Appendix 27**.

*(m) likely impacts of development on the water quality of coastal waterbodies,*

Refer to the detailed assessment of impacts on Hearnese Lake prepared by **Worley Parsons at Appendices 17-21**.

*(n) the conservation and preservation of items of heritage, archaeological or historic significance,*

Measures to protect and preserve items of aboriginal heritage significance are discussed at **Section 8.12.1** of this Environmental Assessment.

*(o) only in cases in which a council prepares a draft local environmental plan that applies to land to which this Policy applies, the means to encourage compact towns and cities,*

The proposal aims to develop that part of the site most appropriate for residential use and retain and enhance that part of the site retained as open space.

*(p) only in cases in which a development application in relation to proposed development is determined:*

*(i) the cumulative impacts of the proposed development on the environment, and*

Refer to discussion at in Section 8 regarding the impact of the proposal on the environment.

*(ii) measures to ensure that water and energy usage by the proposed development is efficient.*

A number of measures have been incorporated into the design of the proposal in order to ensure that water and energy usage by the proposed development is efficiently undertaken.

Pursuant to **Clause 14** the proposed development will not impede or diminish the physical, land-based right of access of the public to or along the coastal foreshore.

Pursuant to **Clause 15**, a non-reticulated effluent system is **not** proposed as part of the proposed development. Necessary sewerage services will be provided to service the development site.

Pursuant to the requirements of **Clause 16**, the development will not discharge untreated stormwater into the sea or adjoining beach.

Pursuant to **Part 5** of the SEPP, a master plan would normally be required, as the application involves subdivision for 280 allotments (**Clause 18(1)**).

**Clause 18 (2)** of SEPP 71 allows the Minister to waive the need for a master plan to be adopted subject to a number of matters being addressed. A waiver from the master plan requirement is sought as it is considered that those issues required to be addressed in a Master Plan have been addressed and are provided in this Concept Plan Application and therefore, are in accordance with the Director General's Requirements.

#### **7.1.9 State Environmental Planning Policy (Major Projects) 2005**

**State Environmental Planning Policy (Major Projects) 2005** outlines the types of development declared to be a Major Project for the purposes of Part 3A of the Act. **Clause 6** of SEPP 2005 defines 'Major Projects' and as previously described the proposal falls within the SEPP and is therefore subject to Part 3A of the EP & A Act.

#### **7.1.10 North Coast Regional Environmental Plan (North Coast REP)**

The relevant regional policy applying to the Coffs Harbour area is the **North Coast Region Environmental Plan** (North Coast REP).

**Clause 2B(2)** specifies that *“the consent authority, Minister or public authority must take into consideration such of the aims and objectives of this plan as are relevant to the making of its determination.”*

**Part 3, Division 2** deals with **Coastal Development**. The **Objectives** of relevance in the plan in relation to **Coastal Planning** are to:

- (a) *to enhance the visual quality of the coastal environment;*
- (b) *to provide for the appropriate recreational use of beaches;*
- (c) *to protect the water quality of the coastal environment;*
- (d) *to minimise risks to people and property resulting from coastal processes;*
- (e) *to minimise changes to coastal processes resulting from development; and*
- (f) *to encourage retention of natural areas and regeneration of those natural areas which are already degraded.*

It is considered that matters of visual quality, water quality, risk to coastal processes and impacts on natural areas have been considered with respect to the heads of consideration within **SEPP 71** and are addressed in detail in the Environmental Assessment Issues at **Section 8.6 and 8.8.2** of this EA.

**Clause 32B** deals with **Development Control – Coastal Lands**. In determining an application for consent to carry out development on such land, a council must take into account the NSW Coastal Policy 1997; the Coastline Management Manual; and the North Coast: Design Guidelines (**Clause 31(2)**). In this case, the Minister is the consent authority and may take into account the provisions of these plans. The provisions of these plans are addressed below. Pursuant to the requirements of **Clause 31(3)**, the proposed development will not impede public access to the foreshore, but enable controlled access from within the subject site.

Pursuant to **Clause 32B(4a)**, the Council (in this case though the consent authority is the Minister) must not consent to the carrying out of development *“on urban land at Tweed Heads, Kingscliff, Byron Bay, Ballina, Coffs Harbour or Port Macquarie, if carrying out the development would result in beaches or adjacent open space being overshadowed before 3pm midwinter (standard time) or 6.30pm midsummer (daylight saving time)”*.

Pursuant to **Clause 32B**, the proposed development does not overshadow the beach.

**Part 4 Division 2** addresses **Urban Housing**. The **Objectives** of the Plan in relation to **Urban Development** are to *“promote the provision of a range of adequate, affordable and suitable housing to meet the needs of the region’s population”* (**Clause 41**).

**Clause 43(1)(a)** provides that the council shall not grant consent to development for residential purposes unless *“it is satisfied that the density of the dwellings have been maximised without adversely affecting the environmental features of the land.”*

Pursuant to this Clause, the consent authority must seek to maximise the number of dwellings within residential developments, subject to the development not adversely affecting the environmental features of the land. The proposal does this given the environmental constraints of the site.

In accordance with **Clause 41** and **Clause 43**, the proposal seeks to provide an appropriate mix and density of dwellings on the site with excellent access to facilities and services, an protecting and rehabilitating the environmental features of the land.

Pursuant to **Clause 66 – Development control, adequacy of community and welfare services**, before granting consent to a development application for the subdivision of land intended for residential or rural residential purposes, the council shall consider the adequacy of community and welfare services available to the land and take into account the results of that consideration.

#### **7.1.11 Coffs Harbour City Local Environmental Plan 2000**

As this project falls under Part 3A of the Act, the **Coffs Harbour City Council LEP 2000 (LEP 2000)** does not strictly apply other than insofar as the Minister may consider it. Despite this, the Concept Plan proposal has been considered in relation to the LEP’s objectives and provisions of the LEP 2000.

##### **LEP 2000 Aims and Objectives**

The **Aims** and **Objectives** of the LEP 2000 relevant to the proposed development include **(Clause 2)**:

(1) *The aims of this Plan are:*

- (a) .....
- (b) *to encourage sustainable economic growth and development within the City, and*
- (c) *to recognise the need to provide for, and to provide for, development within the City in an ecologically sustainable manner, and*
- (d) *to provide a quality lifestyle within the City.*

(2) *The objectives of this Plan are:*

- (a) ....



- (b) *to identify areas for compatible development opportunities, and*
- (c) *to protect environmentally sensitive areas and the City's heritage, and*
- (d) *.....*
- (e) *to minimise the risk to human life and damage to property caused by natural hazards such as bush fire, land instability and flooding..*

As discussed above, this project falls under Part 3A of the Act, therefore the **Coffs Harbour City Council LEP 2000 (LEP 2000)** does not strictly apply other than insofar as the Minister may consider it. However, this application is consistent with the **Aims** and **Objectives** of the **LEP 2000** in ensuring that the land will be developed in a manner that will enable the sustainable growth of the City; has been designed in accordance with the principles of ecological sustainable development; and is undertaken in a manner that protects environmentally sensitive areas in accordance with **Clause 2(2)(c)**. The proposal is an innovative and functional design which minimises impacts on the key environmental values of Hearn's Lake and surrounds, and the broader environment.

### **Zone Objectives**

As discussed above, the zoning of Lot 22 is part **Residential 2A Low Density (29.5 hectares)**, part **Residential 2E Tourist (8.7 hectares)**, part **Environmental Protection 7A Habitat and Catchment** and part **Environmental Protection 7B Scenic Buffer (combined 10.8 hectares)**, under the provisions of **LEP 2000**.

### **Residential 2A Low Density**

The aims and objectives of the **Residential 2A Low Density** are:

*To provide for the low density housing needs of the population.*

*To enable housing development and other development that is compatible with a low density residential environment.*

*To provide for development that is within the environmental capacity of a low density residential environment and can be adequately serviced.*

The Concept proposal comprises a residential subdivision within part of the land zoned Residential 2A Low Density in a form consistent with the aims and objectives of the Zone. Discussion of the suitability of the site in relation to services is found at **Section 8.11**.

### **Permissible Development**

The following uses are permissible **without** consent in the Residential 2A zone:

*Development for the purpose of:*

*agriculture; bed and breakfast establishments; environmental protection works; home industries; home occupations; special care homes.*

The following uses are permissible **with** consent in the Residential 2A zone:

*Development for the purpose of:*

*aquaculture; attached dual occupancies; boarding houses; camp or caravan sites; child care centres; communications facilities; community facilities; dams; demolition; detached dual occupancies; dwelling-houses; educational establishments; forestry; general stores; group homes; multi-unit housing; places of worship; recreation areas; recreation facilities; roads; seniors housing; utility installations; veterinary clinics.*

*Subdivision of land.*

The proposal is entirely permissible with consent under the Residential 2A zone.

## **Residential 2E Tourist Zone**

The **Objectives** of the Residential 2E Tourist Zone are to:

- *to enable tourist development and other development that is compatible with the surrounding environment.*
- *to provide for development that is within the environmental capacity of a high density residential environment and can be adequately serviced.*

The proposal satisfies the Objectives of the Residential 2E Tourist Zone for the same reasons cited in the discussion above (LEP Aims and Objectives).

## **Permissible Development**

The following uses are permissible **without** consent in the Residential 2E zone:

*Development for the purpose of:*

*bed and breakfast establishments; environmental protection works; home industries; home occupations; special care homes.*

The following uses are permissible **with** consent in the Residential 2E zone:

*Development for the purpose of:*

*advertisements; attached dual occupancies; boarding houses; camp or caravan sites; car parks; child care centres; communications facilities; community facilities; convenience stores; dams; demolition; detached dual occupancies; dwelling-houses; eco-tourism facilities; educational establishments; entertainment facilities; environmental facilities; forestry; general stores; group homes; helicopter landing sites; hotels; motels; multi-unit housing; places of worship; recreation areas; recreation facilities; restaurants; roads; seniors housing; service stations; tourist facilities; utility installations.*

#### *Subdivision of land*

The proposal is entirely permissible with consent under the Residential 2E zone.

### **Environmental Protection 7A Habitat and Catchment**

The **Objectives** of the **Environmental Protection 7A Habitat and Catchment** zone are to:

*To protect and enhance sensitive natural habitat and waterway catchments.*

*To protect habitat values and water quality and enable development which does not adversely impact upon these.*

*To enable development that is within the environmental capacity of the land and can be adequately serviced.*

### **Permissible Development**

The following uses are permissible **without** consent in the Environmental Protection 7A zone:

*Development for the purpose of:*

*agriculture (which does not involve the clearing of bushland or construction of buildings); environmental protection works; home industries; home occupations.*

The following uses are permissible **with** consent in the Environmental Protection 7A zone:

*Development for the purpose of:*

*agriculture (which involves the clearing of bushland or the construction of buildings); aquaculture; attached dual occupancies; bed and breakfast establishments; dams; demolition; dwelling-houses; eco-tourism facilities; environmental facilities; forestry; recreation areas; roads; utility installations.*

*Subdivision of land.*

Development including a road access and part of the residential subdivision in the eastern precinct sit partly within the **Environmental Protection 7A Habitat and Catchment Zone**. These uses are permissible with consent.

### **Environmental Protection 7B Scenic Buffer**

The **Objectives** of the **Environmental Protection 7B Scenic Buffer** zone are to:

*To enable development that does not adversely impact on the scenic qualities of the Pacific Highway.*

*To enable development that is within the environmental capacity of the land and can be adequately serviced.*

The plan provides a scenic buffer between the Pacific Highway and the residential development at the width of the existing 7B zone along the western boundary.

Within that zone, landscape planting and roadway planting is proposed to ensure a landscape canopy is enabled which will not adversely impact on the scenic qualities of the highway and which will improve the quality of the scenic buffer over time.

### **Permissible Development**

The following uses are permissible without consent in the Environmental Protection 7B zone:

*Development for the purpose of:*

*agriculture (which does not involve the clearing of bushland or construction of buildings); environmental protection works.*

The following uses are permissible with consent in the Environmental Protection 7B zone:

*Development for the purpose of:*

*agriculture (which involves the clearing of bushland or the construction of buildings); aquaculture; dams; demolition; environmental facilities; forestry; recreation areas; recreation facilities; roads; utility installations.*

*Subdivision of land.*

The Concept Plan proposes a passive recreation area and roadways within the **Environmental Protection 7B Scenic Protection Zone**. These uses are permissible with consent. It is also proposed to provide a continuation of the acoustic barrier parallel with the highway, to provide suitable noise amelioration for the future residents. Acoustic barriers are not defined in the LEP, and therefore would be prohibited within the **7B Scenic**

**Protection Zone.** However, as the barriers are not in a "sensitive coastal location", the Minister may approve them as part of the Concept Plan.

#### **Clause 11 Tree Preservation**

Under **Clause 11** a person shall not carry out or permit or direct or cause any ringbarking, cutting down, topping, lopping, removing or wilful destruction of any tree or trees to which a tree preservation order applies without development consent.

The concept plan has been developed in a form that proposes the retention of vegetation and habitats within the conservation areas. Tree removal is only proposed in association with construction of dwellings and associated services and within areas requiring fill as part of the developable subdivision (refer to the **Draft Environmental Site Management Strategy** prepared by **Conacher Environmental Group** at **Appendix 12** and the **Urban Form and Landscape Concept Report** prepared by John Holland Landscape Architecture at **Appendix 2**.

#### **Clause 12 Koala Habitat**

Pursuant to Clause 12, consent shall not be granted to development on land to which this Plan applies unless the development is in accordance with a koala plan of management.

A Koala Habitat Assessment by Conacher Travers (refer **Appendix 11**) concluded that despite the area being mapped as a Secondary Koala Habitat within Coffs Harbour Council's Koala Plan of Management, based on extensive surveys in 2003, 2004 and 2005 the Koala has not been recorded within the subject site, and that the presence of the species is unlikely. As noted above, State Environmental Planning Policy No. 44 – Koala Habitat Protection does not apply to the Coffs Harbour Local Government Area (Schedule 1 of SEPP 44).

#### **Clause 14 Landform Modification**

Under **Clause 14** a person shall not, without development consent, carry out a work or any other development on land to which this Plan applies for any purpose where the work or other development has the effect, in the opinion of the consent authority, of significantly adversely affecting the natural environment, through either filling or excavation.

Some filling of land is proposed to address issues associated with flooding and climate change (refer to the *Flood Impact Assessment* by Worley Parson at **Appendix 20**). Worley Parsons conclude that the impact of the fill on the flood hazard are "*negligible and the development will not worsen flood conditions on adjoining properties*" (pp24). Their conclusion relating to the impact of the fill on the Year 2100 flooding (that is, in relation to potential climate change impacts) that "*a maximum increase of less than 20mm is predicted within and outside of the development site*" and that "*the proposed filling is considered to have a negligible impact on flooding during the Year 2100 design 100 year recurrence event....*". (pp24,25)

Approximately 27 hectares of the site will require tree removal or modification as part of the proposal. This has been assessed by **Conacher Environmental Group (Appendix 11)**. They conclude that the retention, protection and restoration of approximately 21 hectares of the site will offset those areas to be removed as part of the proposal, and that the areas proposed to be retained contain endangered ecological communities and areas of habitat for the observed threatened fauna species.

#### **Clause 14 Availability of services**

Under **Clause 14** Council must not consent to an application unless adequate arrangements have been made for water supply and facilities and for the removal or disposal of sewage and drainage are available to that land. We have been advised that these services are available and adequate to service the development (refer to discussion at **Section 8.11.1**) and the Minister may therefore be satisfied in the terms of **Clause 15**.

#### **Clause 18 Subdivision and Erection of Dwellings within Rural and Environmental Protection Zones**

The objective of **Clause 18** is to allow the subdivision of land in rural and environmental protection zones in accordance with the land's environmental capacity. It establishes a minimum allotment size in the **Environmental Protection 7A Habitat and Catchment Zone** of 40 hectares, however, Clause 18(4)(c) enables consent to be granted to a subdivision of land in 7A, a parcel of land that adjoins land in Zone 2A, provided it is a composite parcel where:

- (i) each resultant allotment contains an adequate (in the opinion of the consent authority) building envelope outside the land in Zone 7A, and*
- (ii) the consent authority considers that the subdivision is desirable for achieving long term management of the land within Zone 7A.*

It is proposed to develop approximately 2000m<sup>2</sup> of land within the 7A zone, adjacent to the 2A zoned land in the eastern part of the site for residential and road access purposes. Suitable footprints will be able to be achieved within the 2A land for building purposes, therefore no building footprint is proposed within the 7A zoned land.

#### **Clause 21 Heritage**

Pursuant to **Clause 21 Heritage** (and **Schedule 5** and **6**), the subject site is not identified as containing an item of environmental heritage. It is not within the vicinity of a heritage item. It is not located within a Heritage Conservation Area.

#### **Clause 22 Waterways**

**Clause 22** of LEP 2000 applies to land adjoining the Solitary Islands Marine Park and prescribes that consent must not be granted to the erection of a building unless the consent

authority has taken into account specified objectives of the Marine Parks Act 1997 and has consulted with the Solitary Islands Marine Park Authority in certain circumstances.

The Solitary Islands Marine Park covers an area of around 71 000 hectares, extending from Muttonbird Island in the south to Plover Island in the north, and extends from the mean high water mark and upper tidal limits of coastal estuaries, seaward to three nautical miles. As such, the development site adjoins the Solitary Islands Marine Park and Clause 22 of LEP 2000 applies.

The proposed development will have not have an adverse impact on the Marine Park. The water management strategy proposed for the site has been designed to ensure that the potential impacts on the water quality of the Solitary Islands Marine Park are appropriately mitigated and to *'ensure that runoff discharged to Hearnes Lake is of a quality that will not adversely impact on the lake hydrology and associated ecosystems'*. (Source: Worley Parsons "Water Management Strategy" – pp26, Appendix 17).

### **Clause 23 Environmental Hazards**

Pursuant to **Clause 23 – Potential Acid Sulphate Soils**, an Acid Sulphate Soils Management Plan is recommended by consultants Coffey in the Preliminary Geotechnical Assessment (attached at **Appendix 24**), to guide the development of the site.

Pursuant to **Clause 23 - Flood prone land**, consent shall not be granted to the subdivision of, or the erection of a building or the carrying out of a work on, land that is prone to flooding, unless the consent authority has had regard to the provisions of the Council's Floodplain Development and Management Policy, if any, and the Floodplain Development Manual most recently notified by the Minister for Urban Affairs and Planning under section 733 (5) (a) of the Local Government Act 1993 .

In accordance with the recommendations of the Flood Impact Assessment undertaken by Worley Parsons (**Appendix 20**) is proposed to establish a minimum habitable floor level 500mm above the recommended flood level, incorporating climate change, of 2.95mAHD. All buildings will be designed to comply with relevant policies and requirements.

#### **7.1.12 Draft Amendment No. 23 to Coffs Harbour Local Environmental Plan 2000**

As this project falls under Part 3A of the Act, the **Coffs Harbour City Council LEP 2000 (LEP 2000)** does not strictly apply other than insofar as the Minister may consider it. Draft Amendment No. 23 requires that vegetation is not to be removed on land which Council's Conservation Development Control Plan applies without Council consent, when

- a) the development is in accordance with the Vegetation Development Control Plan and in accordance with
- b) a Koala Management Plan.

A detailed vegetation survey of the site was completed by Conacher Travers. The results of this study are addressed at Section 8 to this report, as is the issues relevant to Council's Koala Plan of Management.

#### **7.1.13 Draft Amendment No. 29 to Coffs Harbour Local Environmental Plan 2000**

As this project falls under Part 3A of the Act, the **Coffs Harbour City Council LEP 2000 (LEP 2000)** does not strictly apply other than insofar as the Minister may consider it. The aim of this plan is:

*"to rezone land in Hearn's Lake / Sandy Beach*

- *to protect Hearn's Lake, native vegetation at habitat areas;*
- *to recognize open space and recreation areas;*
- *to reflect detailed planning of the area."*

This plan applies to land within Coffs Harbour City, as shown edged heavy black in the map marked Coffs Harbour City Local Environmental Plan 2000 (Amendment No. 29).

The subject site is included within this map, the majority of which is zoned 7A Environmental Protection Habitat Catchment.

As indicated in this report the proposal reflects detailed planning of the area, and with planning for the site being strongly influenced by the biodiversity of the Hearn's Lake and coastal environment and the opportunity for its conservation and rehabilitation.

#### **7.1.14 Coffs Harbour City Council Development Control Plans**

The Hearn's Lake/ Sandy Beach Development Control Plan applies to the subject land.

It should be noted, however, that this DCP anticipates an amendment to the Local Environmental Plan (that is, Amendment 29), and therefore a number of the controls reflect the **proposed** zoning rather than the current applicable controls. As is required by the Section 74C of the EP&A Act, however, a DCP should incorporate controls that *'achieve the purpose of an environmental planning instrument applying to the land'*. Notwithstanding this, the proposal has been considered in relation to the DCPs objectives and planning controls, as outlined below.

The objectives of the Hearn's Lake/ Sandy Beach Development Control Plan DCP are as follows (pp1):

##### ***Economic Sustainability***



- *To ensure that the existing community is not burdened by the provision of public utilities and facilities required as a result of future development.*
- *To equitably provide public utilities in a timely, cost-efficient and effective manner.*
- *To ensure development contributes to the economic growth of the City and provides links to local employment opportunities.*

### ***Social Sustainability***

- *To provide safe and attractive neighbourhoods that meet the diverse needs of the community and offer a wide choice of housing and leisure opportunities, as well as associated community facilities.*
- *To improve the accessibility of public transport services and provide infrastructure to encourage walking and cycling, and to lessen the dependence on cars.*
- *To provide a network of well distributed parks and recreation areas that offer a variety of safe, appropriate and attractive public open spaces.*

### ***Environmental Sustainability***

- *To ensure development complements the conservation of biodiversity by protecting areas of high conservation value.*
- *To ensure that development takes into account environmental constraints including soil erosion, flooding and bushfire risk, and protects areas of natural and cultural significance.*
- *To ensure that development incorporates best practice urban water management techniques relating to stormwater quality and quantity, water conservation and reuse, and ecosystem health;*
- *To ensure that future development does not conflict with the objectives of the Solitary Islands Marine Park.*
- *To ensure that development does not conflict with the intended outcomes for 'Healthy Modified Lakes' as specified in the Healthy Rivers Commission Final Report on Coastal Lakes.*
- *To ensure that development is consistent with the aims and objectives of State Environmental Planning Policy 71 – Coastal Protection.*

As indicated above, and throughout this report, the Concept Plan reflects significant detailed planning for the area, to enable a development which achieves economic, social and environmental goals. This is consistent with the objectives of the DCP.

The DCP requires that a Site Analysis Plan (pp2) is submitted with any development application for subdivision. While this is a concept application, a site analysis prepared by John Holland Landscape Architecture provides a comprehensive analysis of the site and outlines the opportunities and constraints relating to the proposed subdivision and future use of the land, and is included as **Appendix 1**.

Part 2 of the DCP – *Planning Strategy: Master Plan* outlines specific strategies with the aim of meeting the following objectives:

- To provide a framework for a community that is sustainable, safe and vibrant.
- To provide an overall plan for the area that enables the integration of existing and proposed development.

As the DCP planning strategy seeks to achieve a number of outcomes consistent with the draft CHCCLEP 2000 (Amendment 29), the specific strategies are not considered directly applicable to this proposal. However, this Environmental Assessment and attached Consultant Reports provide sufficient information to address the general objectives of Part 2 of the DCP in particular to establish a framework for a sustainable, safe and vibrant community, and to achieve an effective integration with neighbouring lands.

Part 3 of the DCP details specific controls within land release areas. A response to the planning controls incorporated in Part 3 of the DCP is provided below:

<b>Hearnes Lake / Sandy Beach Development Control Plan – Part 3</b>	
<b><i>Planning Controls</i></b>	<b><i>Compliance</i></b>
<i>The density of development within each precinct is to be in accordance with the target densities specified on Map 5.</i>	The proposal provides for a greater residential density consistent with the existing zoning for the site and the suitability of the site. This aims for a residential density of 280 residential lots compared to the 'target density' of 35 dwellings for the site.
<i>Buildings are not to exceed 6m in height.</i>	The Concept application proposes limitations to the height of buildings to 8.5 metres (to achieve two storey development).
<i>Development is to comply with the controls provided below and Part 4 of this DCP;</i>	Detailed assessment is to be carried out for the subsequent applications for the site.
<i>Lots must have appropriate area and dimensions to enable efficient siting and construction of a dwelling and ancillary buildings, provision of private outdoor space, convenient vehicle access to a public road and adequate parking.</i>	Complies.  The Concept proposes a minimum lot size of 400sq.m.

<i>Tourist development should be in accordance with the prevailing guidelines;</i>	Complies
<i>Where practicable bush fire buffers can be utilised for recreational activities, community facilities and stormwater treatment.</i>	Complies
<i>Subdivision layouts should establish legible street and open space networks, and should generally provide for buildings fronting streets to ensure safe, attractive and efficient circulation of pedestrians, cyclists and drivers.</i>	Complies
<i>Development shall connect well to existing or proposed development on adjacent sites.</i>	Complies
<i>Development shall provide open space linkages to adjacent environmental protection and/or open space areas.</i>	Complies
<i>A landscape plan is required detailing treatment of the streetscape utilising local native species and shall include a three year maintenance plan. The landscape plan shall be submitted to Council prior to the release of the Subdivision Certificate.</i>	A Concept Landscape Masterplan and planting schedule is provided, which outlines the utilisation of native plantings.
<i>Landscaping requirements shall not be reliant on Council land and is to occur on public land only at the request of Council.</i>	Complies
<i>Residential development utilising 'gated' street formats is strongly discouraged.</i>	Complies
<i>Where retirement or other lifestyle developments are proposed, these must incorporate the majority of their development on public streets, with good linkages to surrounding areas.</i>	NA
<i>No development is to occur until adequate road access and reticulated</i>	Noted

water and sewerage services are available to the land.	
<i>Development involving earthworks or vegetation removal shall be accompanied by an Erosion and Sediment Control Plan in accordance with Council's Policy.</i>	An Erosion and Sediment Control Plan will be provided in subsequent development applications.
<p><i>To ensure protection of water quality, the following buffers are to be provided (as determined by Council and shown on the Master Plan):</i></p> <ul style="list-style-type: none"> <li>- <i>A minimum of 50m from an RL Level of 3.5 around Hearn's Lake and Double Crossing Creek;</i></li> <li>- <i>50m from SEPP26 Littoral Rainforests;</i></li> <li>- <i>50m from SEPP14 Wetlands;</i></li> <li>- <i>50m from Willis Creek,</i></li> <li>- <i>20m from all other creeks</i></li> </ul>	The 'vertical buffer' determined by consultants Worley Parsons in response to flooding and climate change impacts will ensure a residential development buffer to an RL of 2.95m AHD – refer <b>Appendix 20</b> .
<i>As part of development proposals the buffers specified above are to be rehabilitated and revegetated using local native species, in accordance with a detailed plan approved by Council, and dedicated as environmental protection land (refer to Master Plan and Map 4);</i>	As discussed above, significant environmental protection areas (15.5 hectares of the site) are proposed to be set aside as conservation. This will achieve the intent of this control.
<i>Development applications for subdivision are to be accompanied by water quality modelling to assess the impact of development in accordance with the Stormwater Strategy for each precinct (refer to attachments A);</i>	Complies. Refer to the Proposed Water Management Strategy prepared by Worley Parsons at <b>Appendix 17</b> .
<i>Development is to incorporate Water Sensitive Urban Design in accordance with Council's adopted policy.</i>	Complies.
<i>Development applications for low lying areas are to be accompanied by groundwater monitoring over 12</i>	Refer to the groundwater assessment by Coffeys at <b>Appendix 25</b> .

<i>months and an assessment of the impacts of proposed development, particularly placement of fill, drainage and stormwater facilities with regards to groundwater quality and levels, and the impacts on the estuary.</i>	
<i>Lots are to be orientated to facilitate the siting of dwellings that will have adequate solar access.</i>	The proposed residential subdivision has been designed to facilitate the appropriate siting of buildings to maximise solar access.
<i>A minimum of 75% of lots in any proposed subdivision for single dwelling allotments shall be orientated so that the long axis of the lot is within the range shown in the Diagram.</i>	This is a Concept application only and therefore the individual allotments are yet to be resolved, however the super lot layout will enable achievement of this control.
<i>Residential development shall be designed in accordance with Council's Energy Efficiency Information Sheet.</i>	The intent of the architectural concept is to ensure compliance with BASIX.
<i>Development will be required to comply with Council's Flood Prone Land Policy, parts of which are summarised below.</i>	Complies. Refer to the Flood Assessment at <b>Appendix 20</b> .
<i>All lots within a Flood prone Area (as defined by Council) must have a house site with a minimum area of 400m<sup>2</sup>, with a minimum width of 15m, above the 100 year flood level.</i>	Complies.
<i>Any portion of the lot lower than the 100 year flood level will have a restriction on the construction of non exempt structures.</i>	No allotments will be within the 1:100 year flood level.
<p><i>Where development involves landform modification below the 1% flood level, the proposed development shall comply with the following provisions:</i></p> <ul style="list-style-type: none"> <li><i>- A flooding analysis is to be submitted with the development application and approved by Council's Flooding Engineer prior to</i></li> </ul>	Complies. Refer to the Flood Assessment at <b>Appendix 20</b> . A flooding analysis has been prepared by Worley Parsons. The report indicates no adverse change to the flood behaviour as a result of the fill proposed.

<p><i>issue of consent.</i></p> <ul style="list-style-type: none"> <li>- <i>No filling will be permitted within the High Flood Risk Precinct.</i></li> <li>- <i>Minor filling may be permitted within the 1% flood extent subject to an engineers report certifying the development will not result in any increased flood affectation elsewhere and results in a better planning solution. Minor filling being regarded as filling resulting in the 1% flood line having a more regular shape and/or minor movement of the line to facilitate a more practicable and/or efficient development.</i></li> <li>- <i>No adverse change to the flood behaviour will be permitted, either on properties adjoining the site or elsewhere including upstream and downstream of the site.</i></li> </ul>	
<i>Local perimeter roads should be above the 1% flood level.</i>	Complies.
<i>Internal road layouts and subdivision design shall consider flood evacuation issues for pedestrians and vehicles.</i>	Complies.
<i>Roads across waterways are to be constructed to Council standards.</i>	N/a
<i>In designing subdivisions, consideration must be given to the requirement for dwelling floor levels to be 500mm above the 1% flood level.</i>	Complies. The subdivision proposed will enable all dwellings to be erected 500mm above the 1% flood level.
<i>The following requirements apply to any land with a history of Banana Cultivation and/or Potentially Contaminated Land identified.</i>	N/a
<i>A detailed site assessment report with regard to potential soil and</i>	Refer to Appendices 24 and 25

<i>groundwater contamination shall be submitted with development applications for the above land.</i>	
<p><i>Where Site Assessment Reports, Remedial Action Plan's, or Validation Reports are required as part of development applications, these are to be prepared in accordance with relevant guidelines prepared by the NSW Environment Protection Authority (EPA) including the following:</i></p> <ul style="list-style-type: none"> <li><i>- Guidelines for Assessing Banana Plantation Sites (EPA 1997) and;</i></li> <li><i>- Guidelines for Consultants Reporting on Contaminated Sites.</i></li> </ul>	N/a
<i>The National Environmental Protection Council's National Environment Protection (Assessment of Site Contamination) Measure (1999) shall also be considered as part of assessment reports.</i>	Refers to Coffey's assessment at <b>Appendix 24.</b>
<i>Where the detailed site assessment indicates that a Remedial Action Plan (RAP) is required, this Plan shall accompany Development Applications. These reports are to be prepared by suitably qualified and experienced professionals.</i>	N/a. Concept application only.
<i>Where the aggregate area to be remediated is more than 3 hectares, the development becomes designated development and requires the preparation of an Environmental Impact Statement.</i>	N/a
<i>No remediation is to occur without Council approval; compliance with the abovementioned guidelines; and compliance with SEPP 55 – Remediation of Land.</i>	Complies with the requirements of SEPP 55.
<i>Development applications for land being potentially contaminated and/or previously used for banana</i>	N/a. Concept application only.

<i>cultivation shall include as a minimum, consideration of site history and the potential of soil contamination from previous land use.</i>	
<i>Where this consideration identifies soil contamination and/or cannot exclude the possibility of contaminated land, then a detailed site assessment shall be undertaken as above.</i>	Complies
<i>Western and Eastern Precincts General</i>	
<p><i>An Archaeological Assessment must be undertaken as part of the development application process.</i></p> <p><i>Archaeological Assessments must:</i></p> <ul style="list-style-type: none"> <li><i>- be undertaken by person(s) deemed to be suitably qualified by Council and the local Aboriginal Land Council.</i></li> </ul> <p><i>Note: consultants must have an appropriate knowledge/attachment to the Hearn Lake/Sandy Beach area.</i></p> <ul style="list-style-type: none"> <li><i>- Comply with the National Parks and Wildlife Act 1974 and Environmental Planning and Assessment Act 1979.</i></li> <li><i>- Consider specific 'links', which are important to the Gumbaingirr Aboriginal community.</i></li> </ul> <p><i>Consultation is to be undertaken with the Local Aboriginal Land Council, Yarrawarra Aboriginal Corporation &amp; Elders of relevant Aboriginal Communities throughout the preparation of the assessment.</i></p> <p><i>Cultural Heritage Studies are to be forwarded to the LALC and YAC for comments prior to their finalisation.</i></p> <p><i>A copy of the finalised Cultural Heritage Study is to be given to the LALC and YAC.</i></p>	N/a. Concept application only.



<i>The requirements of the National Parks and Wildlife Act 1974 must be followed if cultural/sites places are identified on the site and a Section 90 Heritage Impact Permit obtained from the Department of Environment and Conservation ahead of any site disturbance or destruction.</i>	
<b>NATURAL AND HABITAT AREAS</b>	
<i>Environmental protection areas are to be protected through the provision of buffers (see Water Quality) and by excluding development from flood liable land.</i>	Complies
<i>Land within 100m of any Osprey nest shall be added to environmental protection land and dedicated to Council as development occurs.</i>	Complies.
<i>Development applications shall require assessment of natural and habitat areas.</i>	Complies.
<i>Development or works on land with Known Habitat for Wallum Froglet and other endangered fauna species will require assessment under the Threatened Species Conservation Act 1995. Habitat areas shall be dedicated to Council for Environmental protection as development occurs.</i>	Complies.
<i>Development shall have regard to Council's Koala Habitat Information Sheet.</i>	Complies
<i>Where practicable, perimeter roads shall be provided adjacent to all environmental protection areas to provide a separation distance between residential development and natural areas. Perimeter roads may be incorporated into bush fire buffers.</i>	Complies
<i>For all environmental protection land required to be dedicated to Council</i>	N/a. Community Title is proposed.

<p><i>the following applies:</i></p> <ul style="list-style-type: none"> <li>- A detailed Vegetation Management Plan (VMP) for the rehabilitation/revegetation of environmental protection land is to be submitted and approved by Council;</li> <li>- The VMP is to incorporate bush fire buffers and provide management measures for the required buffers; The VMP is to incorporate the treatment of the highway buffer, using local native species, with an aim to providing a scenic buffer for the travelling public;</li> <li>- Initial works identified within the VMP are to be completed prior to release of Subdivision Certificate;</li> <li>- Works may be staged but must be commensurate with staging of subdivision; and</li> <li>- Follow up maintenance works identified within the VMP are to be costed and contribution paid to Council at the time of dedication.</li> </ul>	
<i>Protected areas are to be fenced off prior to commencement of works to prevent degradation of natural vegetation during construction works.</i>	N/a. Concept application only.
<i>All proposals for subdivision must be accompanied by a Bush Fire Assessment in accordance with Council's Bush Fire Information Sheet.</i>	Complies.
<i>Bush fire buffers are to be maintained at all times with minimal fuel loads.</i>	Complies
<i>Beach access is to be provided by the Developer where identified in the Master Plan and on Map 4.</i>	Complies
<b>NOISE</b>	
<i>Applications for subdivision within 300m of the Pacific Highway and/or</i>	Complies. Refer to Noise Assessment at

<i>land adjoining industrial areas will be required to be accompanied by an acoustic report, identifying measures (mounding, acoustic barriers, building design, building materials, etc) to ensure future residents are not subject to unacceptable noise levels.</i>	<b>Appendix 16.</b>
<i>Assessment is to be undertaken by an appropriately qualified person, having regard to the following guidelines: NSW Industrial Noise Policy (EPA 2000) and the NSW Environmental Criteria for Road Traffic Noise (EPA 1999).</i>	Complies. Refer to Noise Assessment at <b>Appendix 16.</b>
<b>ROAD DESIGN AND ACCESS CONTROL</b>	
<i>Development shall be designed in accordance with the Traffic and Transport Strategy.</i>	N/a
<i>Development shall be designed to incorporate the collector roads shown in the Master Plan (Map 2).</i>	N/a
<i>Land required for a local road shall be dedicated to Council.</i>	It is proposed to retain the road system within the Community Title system.
<i>Road design and construction works are to conform to Council's Development Design Specification.</i>	Complies
<i>Road and footpath treatments are to be designed throughout the subdivision to create an attractive streetscape.</i>	Complies
<i>Local native street trees are to be planted and protected with tree guards and maintained for a period of three years.</i>	Complies
<b>ROAD DESIGN FOR BUS ACCESS</b>	
<i>Development is to provide for:</i> <ul style="list-style-type: none"> <li><i>The safe and efficient movement of buses through the subdivision.</i></li> <li><i>Staged development which</i></li> </ul>	Complies

<p><i>takes into account bus access.</i></p> <ul style="list-style-type: none"> <li>• <i>Appropriate road widths on roads likely to form part of a bus route.</i></li> <li>• <i>Bus turning area (Map 7) and bus shelters (Map 4).</i></li> <li>• <i>Linking bus routes and bus stops to the pedestrian network.</i></li> <li>• <i>The preservation of significant roadside vegetation, particularly along Hearn's Lake Road.</i></li> </ul>	
<b>PEDESTRIAN AND CYCLEWAY PATHS</b>	
<i>The developer is to provide cycleway where they pass through the development in accordance with Map 4.</i>	N/a.
<i>The developer is to provide footpaths in accordance with Council's requirements.</i>	Complies
<b>HEARNES LAKE ROAD</b>	
<i>Properties affected by the realignment of Hearn's Lake Road to provide for a bus turning bay (see Map 7) are to dedicate the required land as development occurs to ensure the provision of public access to beach foreshore areas.</i>	N/a

Part 4 of the DCP incorporates general controls for development including for subdivision. A response to the subdivision controls incorporated in Part 4 of the DCP is provided below:

<b>Hearn's Lake / Sandy Beach Development Control Plan – Part 4</b>	
<p><b>SITE ANALYSIS</b>  <i>A site analysis plan is required to identify opportunities and constraints relating to the subdivision pattern and potential end use of the land.</i></p> <p><i>A site analysis plan should be prepared having regard to the following, where relevant:</i></p>	Complies. See Site Analysis Report at <b>Appendix 1</b> .

<ul style="list-style-type: none"> <li>- waterways (creeks, rivers, streams);</li> <li>- significant vegetation/habitat/ fauna corridors;</li> <li>- flood liable land;</li> <li>- steep land/land slip;</li> <li>- fire hazard;</li> <li>- access points (vehicles, pedestrians, cyclists);</li> <li>- soil conditions (acid sulfate, contaminated);</li> <li>- surrounding land uses;</li> <li>- service connections;</li> <li>- easements;</li> <li>- archaeological sites;</li> <li>- topography (contours to Australian Height Datum at 1m intervals);</li> <li>- aspect;</li> <li>- drainage systems;</li> <li>- existing buildings, driveways, septic tanks and disposal areas; and</li> <li>- street and lot layout of locality.</li> </ul>	
<b>DENSITY</b>	
Residential and Tourist Development shall comply with the target densities in maps of this DCP.	As the target densities in the Hearn Lake DCP do not conform to the permissible densities achievable under the Coffs Harbour City Local Environmental Plan 2000, the subdivision concept proposed will enable densities consistent with the minimum allotment sizes applicable within the Coffs Harbour Residential DCP and the Residential Tourist DCP.
Environmental Protection 7A The minimum lot size is 40 hectares.	
Environmental Protection 7B There is no minimum lot size within this zone. Lot size is determined having regard to the merit of the subdivision.	
<b>SERVICES</b>	
General	
Urban Areas Subdivisions in urban areas are generally required to provide infrastructure to all lots including: <ul style="list-style-type: none"> <li>- road;</li> <li>- footpath;</li> <li>- kerb and gutter;</li> <li>- drainage;</li> </ul>	Complies.

<ul style="list-style-type: none"> <li>- reticulated sewer and water;</li> <li>- telecommunications;</li> <li>- street lighting; and</li> <li>- electricity.</li> </ul>	
Stormwater Drainage	
<p>Stormwater drainage shall be designed and provided in accordance with the Precinct Specific Stormwater Strategy (refer to Attachment A). The design details will need to be approved by Council before the drainage is provided, and will need to be completed to Council's satisfaction prior to the issue of the Subdivision Certificate.</p>	<p>A site specific Water Management Strategy prepared by Worley Parsons accompanies the application and is attached at <b>Appendix 17</b>.</p>
<p>Stormwater is to be gravity drained to Council's drainage system. In some circumstances inter-allotment drainage easements over downstream properties may be required. This will necessitate a letter of consent from the owner(s) of the downstream properties to be submitted with the development application.</p>	<p>See above.</p>
<p>Drainage from sites should reflect the preexisting or natural situation in terms of location, quantity, quality and velocity.</p>	<p>See above.</p>
Utility Services	
<p>Utility services must be extended to all lots within a subdivision in accordance with the following table (except for common property in community title and strata subdivisions):</p> <p>Conditions on the development consent will outline how, when and to what standard, these services are to be provided.</p>	<p>Complies. Refer to Section 8.11</p>
Street Tree Masterplan	
<p>A Street Tree Masterplan will be required for subdivisions on greenfield sites*.</p> <p>The Masterplan aims to guide street</p>	<p>Complies. Refer <b>Appendix 2</b>.</p>

<p>tree planting, providing for a more colourful City which complements its natural setting.</p> <p><i>* Where public road is proposed, and may be required for community title subdivisions.</i></p>	
<p>Planting proposed by the Masterplan is to be determined having regard to:</p> <ul style="list-style-type: none"> <li>- site and dwelling boundaries;</li> <li>- location and canopy of existing trees,</li> <li>noting any trees that overhang the sit;</li> <li>- adjacent streets and trees;</li> <li>- any connection to open space networks or</li> <li>proposed public reserves;</li> <li>- paving materials and drainage treatment;</li> <li>- details of any existing fencing and walls;</li> <li>and</li> <li>- location of underground services.</li> </ul>	<p>Complies. Refer <b>Appendix 2.</b></p>
<p>Developer Contributions</p>	
<p>In many cases the payment of contributions are required to cover the cost of services and facilities which are provided by Council.</p> <p>These contributions are often levied with subdivision, prior to the issue of the Subdivision Certificate. Contributions on the development consent will indicate whether these contributions are required.</p> <p>Council's authority to impose conditions for these payments is derived from the Environmental Planning and Assessment Act and the Water Management Act 2000. Ordinarily, subdivisions of residential and rural residential land will be required to pay contributions and are outlined in Council's developer contribution plans and Development Servicing Plan 2003.</p>	<p>Refer to the Draft Statement of Commitments.</p>

## 7.2 Other Relevant Legislation, Policies and Strategies

Other legislation and policies provide a framework for assessment of the project and guide the objectives and design of the proposed development.

### 7.2.1 *Threatened Species Conservation Act, 1995*

The Threatened Species Conservation Act 1995 (TSC Act) establishes a framework for the protection of threatened species, populations and ecological communities in NSW (with the exception of fish and marine plants which are covered by the Fisheries Management Act 1994, and additional species protection under the Commonwealth's Environment Protection and Biodiversity Conservation Act 1999). The TSC Act complements the NPW Act, which makes it an offence to harm or pick threatened species, populations and ecological communities or disturb their habitats as outlined in the TSC Act.

The functions of the TSC Act are to identify and list threatened species populations and ecological communities, vulnerable species and ecological communities and key threatening processes. The Act contains provisions for the identification and declaration of critical habitat and other protective measures.

The TSC Act also complements the EP&A Act, as consideration of threatened species is integrated into the planning process under the EP&A Act. The EP&A Act provides for a '7-part test' to assist in determining whether a development or activity is likely to have a significant effect on threatened species, populations and ecological communities, or their habitats. Where there is likely to be a significant effect a Species Impact Statement must be prepared to further assess the impact.

The **Ecological Survey and Assessment** prepared by **Conacher Environmental Group (Appendix 11)**, concludes that:

- i. *No threatened flora species were recorded on the subject site;*
- ii. *Seven (7) threatened fauna species were detected during surveys; these were Wallum Froglet, Osprey, Black-necked Stork, Glossy Black-cockatoo, Grey-headed Flying-fox, Eastern Freetail Bat and Greater Broad-nosed Bat;*
- iii. *Two listed endangered ecological communities, Swamp Sclerophyll Forest on Coastal Floodplains and Coastal Saltmarsh were recorded on the site;*
- iv. *No endangered populations were recorded within the subject site;*
- v. *The development proposes the retention of substantial areas of habitat including the endangered ecological communities Coastal Saltmarsh and Swamp Sclerophyll Forest on Coastal Floodplains to aid the conservation of the threatened species observed within the subject site. The protection and restoration of these areas will offset those areas to be removed as part of the proposal;*



- vi. *An Ecological Site Management Strategy (Draft) has been prepared for the site detailing strategies to control and minimise the ecological impacts of the proposed development.*

Their report states that “areas of vegetation proposed to be retained contain endangered ecological communities and areas of habitat for the threatened fauna species observed”. The seven part test has been undertaken and it was determined that a species impact test was not required.

### **7.2.2 The Fisheries Management Act 1994**

The Fisheries Management Act 1994 (FM Act) establishes a framework for the protection of threatened species, populations and ecological communities of fish and marine vegetation. This framework mirrors, and is consistent with, the framework for protection of threatened species, populations and ecological communities established under the provisions of the TSC Act.

Most of the provisions relate to the regulation of fishing. However, Section 220ZA of the FM Act makes it an offence to harm any fish or marine vegetation of threatened species, populations of ecological communities. It is also an offence to damage critical habitats (Section 220 ZC). Additionally, under Section 197 of the FM Act, aquatic reserves can be declared, to protect marine vegetation (Section 204A) and spawning areas (Section 206).

A licence would need to be obtained from NSW Fisheries for impacts on any aquatic communities or areas declared under the FM Act. However, if a project is approved under Part 3A of the EP&A Act a permit under Sections 201, 205 and 219 of the FM Act would not be required in relation to the:

- carrying out of dredging or reclamation work
- harming marine vegetation in a protected area; and
- blocking the passage of fish.

Based on the assessments undertaken by Conacher Environmental group, they conclude that the proposed development is not likely to have a significant impact upon threatened species, endangered populations or endangered ecological communities (refer **Appendix 11**). The project does not require any such licence and is consistent with the provisions of the Fisheries Management Act.

### **7.2.3 Native Vegetation Act 2003**

The Native Vegetation Act 2003 (NV Act) relates to the conservation and sustainable management of native vegetation and the clearing of land. It provides for the management of native vegetation on a regional basis taking into account the social, economic and environmental interests of NSW. The NV Act seeks to prevent broad-scale clearing of native

vegetation without sufficient environmental outcomes and generally protects native vegetation, in line with principles of ecologically sustainable development.

Ordinarily, under Section 12 of the NV Act, native vegetation cannot be cleared except in accordance with a development consent granted in accordance with the NV Act, or a property vegetation plan. However, projects declared as Major Projects under Part 3A of the EP&A Act do not require an authorisation to clear native vegetation under Section 12 of the NV Act, and therefore no such authorisation is required for this project.

#### **7.2.4 Noxious Weeds Act 1993**

The Noxious Weeds Act 1993 (NW Act) provides an outline of measures which must be taken to manage the spread of certain specified noxious weeds. Weed control orders, published under Section 7 of the NW Act, can provide for the carrying out of specific measures in respect of certain weeds. Under Sections 12 and 15 of the NW Act occupiers of land must control noxious weeds subject to such control orders and notify the relevant authorities in respect of the weeds.

Both during the construction and operation of the proposal, the requirement to control the spread of such noxious weeds is to be considered, and measures implemented to control noxious weeds, if a weed control order is in effect. The project will be conducted consistently with the NW Act.

#### **7.2.5 The Heritage Act 1977**

The Heritage Act 1977 (Heritage Act) provides for the protection of archaeological sites, particularly non-indigenous sites in NSW. The Act prevents the disturbance or excavation of land upon which historic sites or relics are located without the appropriate approval.

A 'relic' is an item of 'environmental heritage' defined by the Heritage Act as 'those buildings, works, relics or places of historic, scientific, cultural, social, archaeological, architectural, natural or aesthetic significance for the State'. An application for an approval under the Heritage Act is made to the Heritage Council of NSW. Such applications are required to nominate a qualified archaeologist to manage the proposed disturbance of the item of environmental heritage.

Projects that are declared to be Major Projects under Part 3A of the EP&A Act, are not subject to the requirements of Division 8 of Part 6 of the Heritage Act such as to prevent or interfere with the carrying out of an approved project. However, the consideration of heritage issues may still be relevant to the Minister's overall assessment of the project. A Heritage Assessment by Dan Tuck is provided at **Appendix 26**. It concludes that the site has low cultural heritage significance and low archaeological potential and sensitivity.

### **7.2.6 Water Management Act 2000**

The Water Management Act 2000 (WM Act), through the creation of water sharing plans, regulates the use of all water bodies (including groundwater and rivers) in NSW. A licence is required under the WM Act for a broad range of activities which may impact water bodies and rivers, including Water Use Approvals under Section 89, Water Management Work Approvals under Section 90, and Activity Approvals under Section 91 of the WM Act.

Under the WM Act, permits and authorisations previously issued under the now repealed Rivers and Foreshores Improvement Act 1948 generally continue to be in force. Where the WM Act does apply, licences are required to be obtained from the Department of Water and Energy for a range of activities, for example, to undertake an activity which traverse a waterbody or disturb the soil adjacent to a waterbody.

A project declared to be a Major Project under Part 3A of the EP&A Act does not require any Water Use Approvals, Water Management Work Approvals or Activity Approvals to be obtained under the WM Act.

### **7.2.7 Water Act 1912**

Where a water sharing plan has not been made for a water management area in NSW, the Water Act 1912 (Water Act) continues to apply. Under Section 10 of the Water Act, a licence will be required for water conservation, irrigation, water supply, or drainage works or changing the course of a river. Approvals under the Water Act may be required in relation to the drainage works and water conservation works.

### **7.2.8 Marine Parks Act 1997**

The Marine Parks Act 1997 operates to conserve marine biological diversity and marine habitats through the establishment of a system of Marine Parks, and to maintain ecological processes in marine parks. Under the Marine Parks Act, and the Marine Parks Regulation 1999, restrictions are placed on the activities which can be carried out within and near Marine Parks, by the establishment of zoning plans.

Certain activities, for instance the harming of animals, plants or habitats within such zones are forbidden. Furthermore, proposed developments under Parts 4 and 5 of the EP&A Act which either are located within a Marine Park, or may affect a Marine Park, require the consideration of a number of factors relevant to the Marine Park by the determining authority, and in some instances may require consultation with the Marine Parks Authority. While these restrictions do not apply to proposed developments under Part 3A of the EP&A Act, the development will nonetheless be consistent with the objectives of the Marine Parks Act.

Solitary Islands Marine Park is located adjacent to the proposed development. The marine park incorporates 'estuaries to their tidal limit, foreshores to the mean high water mark and extends offshore to the 3 nautical mile state waters boundary'. Hearnese Lake itself is

included within a “Habitat Protection Zone”, which makes it an offence to harm any animal (other than fish), plant or habitat within that zone.

The water management strategy proposed for the site has been designed to ensure that the potential impacts on the water quality of the Solitary Islands Marine Park are appropriately mitigated and to ‘ensure that runoff discharged to Hearnese Lake is of a quality that will not adversely impact on the lake hydrology and associated ecosystems’.

#### **7.2.9 Protection of the Environment Operations Act 1997**

The Protection of the Environment Operations Act 1997 (POEO Act), consolidates the key pollution statutes in NSW under a single Act .

The POEO Act provides for a number of offences in relation to the pollution of air, water, land, creation of noise pollution and the handling, storage and disposal of waste. Some examples of such offences include:

Wilfully or negligently disposing of waste in a way which causes or may cause harm to the environment (Section 115);

- Carrying out certain listed activities without the requisite licence (sections 48 and 49);
- Wilfully or negligently causing a substance to leak, spill or otherwise escape in a manner which causes or may cause harm to the environment (Section 226);
- Failing to comply with the conditions of an Environment Protection Licence (Section 64);
- Causing water pollution (Section 120);
- Causing land pollution (Section 142A); and
- Not reporting a pollution incident which causes or threatens material harm to the environment to the appropriate regulatory authority as soon as practicable.

The POEO Act further seeks to regulate pollution in NSW by requiring a licence to be obtained for certain types of activities and premises.

The project does not fall under any of the categories listed in Schedule 1 of the POEO Act and is therefore unlikely to require a license under the POEO Act.

#### **7.2.10 Soil Conservation Act 1938**

The Soil Conservation Act 1938 provides for the conservation of soil resources and farm water resources and for the mitigation of erosion in NSW. The Act facilitates the

appointment of Commissioner who can serve notices on parties that have caused or may cause soil erosion or land degradation. Notices issued under the Act can require certain persons to undertake (or refrain from undertaking) certain actions such as mitigating measures.

The Act also allows the Minister to declare land as an erosion hazard. In these circumstances the owner, occupier or mortgagee of such land may enter into an agreement for the management of the land, and additionally notices may be served on any person requiring them to take certain actions (or refrain from taking actions) in relation to the land. Catchment areas proclaimed by the Minister carry similar restrictions under Section 20 as land being declared as adversely affected or liable to be adversely affected soil erosion, siltation or land degradation. There has been no catchment area proclaimed, nor authority constituted in relation to the site.

#### **7.2.11 Rural Fires Act 1997**

The Rural Fires Act 1997 (RF Act) allows the Commissioner to issue a Bush Fire Safety Authority for a subdivision of bush fire prone land dealing with compliance with standards regarding setbacks, provision of water supply and other matters considered by the Commissioner to be necessary with regard to bush fire safety.

Ordinarily, under section 100B(3) of the RF Act, a proponent seeking the subdivision of bush fire prone land is required to obtain such a Bush Fire Safety Authority. However, as the project is a Part 3A Major Project, no such Bush Fire Safety Authority is required.

#### **7.2.12 Roads Act 1993**

The Roads Act 1993 regulates the carrying out of various activities in, on and over public roads including the:

- erection of a structure;
- digging up or disturbing the road surface;
- removing or interfering with a structure, work or tree on a road;
- pumping water into a road from any land adjoining the road or,
- connecting a road (whether public or private) to a classified road,

Where the project affects a public road as described above, consent is required from the appropriate roads authority before carrying out the works.

Where consent is required under Section 138 of the Roads Act to carry out a project approved under Part 3A of the EP&A Act, such consent cannot be refused and must not be

substantially inconsistent with the Minister's approval under Part 3A. Consent is required from the RTA in relation to access to the Pacific Highway (refer **Appendix 15**).

#### **7.2.13 Native Title Acts 1993 and 1994**

The Native Title Act 1993 (Cth) and the Native Title Act 1994 (NSW) operate in tandem to provide a legislative framework for the recognition and protection of native title rights in NSW. These Acts allow for Native Title claims to be made over areas such as vacant Crown land, some national parks, forests and public reserves, some types of pastoral leases, some land held for Aboriginal communities, and certain other types of land not privately owned. There are no known Native Title claims registered for this land according to an applications and determinations search undertaken on the *National Native Title Tribunal* Website on 15 December 2008.

#### **7.2.14 NSW Coastal Policy**

The Coastal Policy provides a framework to ensure a balanced and co-ordinated management of the coasts' unique physical, ecological, cultural and economic attributes. It represents an attempt by Government to better co-ordinate the management of the coast by identifying in a single document the State's various management policies, programs and standards as they apply to a defined coastal zone.

Many of the salient features of the **Coastal Policy** have been given statutory voice through the provisions of the **North Coast Region Environmental Plan** and within the **Matters for Consideration** contained within **State Environmental Planning Policy No. 71 – Coastal Protection**.

#### **7.2.15 North Coast: Design Guidelines**

The **North Coast Design Guidelines (1989)** were produced to promote building designs that enhance and protect the North Coast environment. They seek to ensure that buildings on the north coast are "unassertive" through sensitive setting and by closely relating to the natural environment by using sensitive landscaping.

#### **7.2.16 Mid North Coast Regional Strategy**

The Mid North Coast Region covers over 29,000 square kilometres in area, and over 500 kilometres of coastline. The Coffs Harbour Local Government Area is located within the Mid North Coast Region.

*"The primary purpose of the Regional Strategy is to ensure that adequate land is available and appropriately located to accommodate the projected housing and employment needs of the region over the next 25 years".* The Regional Strategy's land use strategy aims to provide up to 58,400 new dwellings by 2031 to house a forecast increase of 94,000 people.

### 7.2.17 Settlement Guidelines: Mid and Far North Coast Regional Strategies

The settlement guidelines have been developed by the Department of Planning in order to assist councils in the preparation of local growth management strategies, in order to achieve the aims of the Mid North Coast Regional Strategy and the Far North Coast Regional Strategy.

The relationship of the concept proposal to the guidelines is discussed below:

Relationship of the Concept Proposal with the Settlement Planning Guidelines	
<b>Location</b>	
1. Future urban settlement should be located predominantly within the agreed growth areas.	The Proposal is within land zoned as an urban area within the CHCC LEP.
2. Future settlement, where permitted by the regional strategies and outside the agreed growth areas, must be located to minimise environmental impacts and be sustainable. Such settlement must satisfy the sustainability criteria contained in Appendix 1 of the Regional Strategies.	As discussed in other Sections of the report, the proposal will: <ul style="list-style-type: none"> <li>• maximize the efficient use of existing and planned social and physical infrastructure;</li> <li>• achieve development that is environmentally, economically and socially sustainable through the development of walkable and cycleable settlements, located to maximise the efficiency of infrastructure, that are sensitively designed to protect the natural environment;</li> </ul>
<b>Land suitability (environment, natural resources, hazard)</b>	
3. Future development should be located on land that is suitable for the development and capable of supporting the proposed uses.	Complies
4. Planning for future development on land already zoned for settlement but not yet developed should identify the constraints and opportunities of the land.  Development should achieve a carefully planned community, respecting environmental, resource and hazard issues.	Complies
5. Future development should avoid areas of environmental significance, significant natural and/or economic resource, potential hazard, high landscape or cultural heritage value, or potential increased risk associated	Complies

Relationship of the Concept Proposal with the Settlement Planning Guidelines	
<i>with impacts of climate change.</i>	
<i>6. Future development adjoining land with the above values should incorporate buffers as necessary to help protect those values and to avoid future land use conflict.</i>	Complies
Land Release	
<i>7. Future development should be strategically planned by providing a timely release of adequate and appropriately located land to address the specific dwelling targets and housing mix identified in the regional strategies.</i>	Application is for Concept subdivision only, but further subdivision will allow for an increase in the choice and variety of housing
<i>8. Future development, particularly in the major centres, should be planned to effect a shift in the new dwelling mix to achieve 60% single dwellings and 40% multi-unit housing across the region to meet the future demographic needs of smaller households and an ageing population.</i>	A variety of housing types is proposed.
Settlement Form and Hierarchy	
<p><i>9. Future development should:</i></p> <ul style="list-style-type: none"> <li><i>strengthen the hierarchy of settlement identified in the regional strategies, support and maintain strong multi-functional business centres, minimise urban sprawl, and maximise infrastructure and service efficiencies;</i></li> </ul>	Complies
<ul style="list-style-type: none"> <li><i>be planned to create communities within the hierarchy of settlement. Consideration should be given to the ultimate geographical extent and population target for each community that is to be formed or built upon, and the staging/timing by which it is proposed to reach that position;</i></li> </ul>	Complies



<b>Relationship of the Concept Proposal with the Settlement Planning Guidelines</b>	
<ul style="list-style-type: none"> <li>provide for a mix of houses, jobs and open space;</li> </ul>	Complies
<ul style="list-style-type: none"> <li>be appropriately located in relation to its scale, nature or type of development; the ability to provide the necessary infrastructure and services; the need for access and to ensure effective traffic management;</li> </ul>	Complies
<ul style="list-style-type: none"> <li>in the case of residential development, provide for a variety of dwelling types and a choice in location, form and affordability; and</li> </ul>	Complies
<ul style="list-style-type: none"> <li>enable mixed uses and home-based employment in residential or village zonings where appropriate.</li> </ul>	Future development will provide for a mix and variety of dwellings
10. Future rural residential development should be planned so any new opportunities strengthen the settlement hierarchy identified in the regional strategies. It should be located close to existing centres and away from areas that may in the future have values for urban expansion.	Complies.
11. Future rural residential development should be clustered to encourage a sense of community and for the efficient provision of services. Fragmented development over the landscape will not be permitted.	Not Applicable.
12. Future development, particularly at the residential/agricultural and the residential/industrial interfaces, should be planned for and managed so any potential conflict is minimised in relation to adjacent land uses.	Development of the land for residential and conservation uses will not create any land use conflicts.
<b>Urban Design and Heritage</b>	

Relationship of the Concept Proposal with the Settlement Planning Guidelines	
13. Future development should recognise, protect and be compatible with any unique topographic, natural or built cultural features essential to the visual setting, character, identity, or heritage significance of the area or settlement that it is to be located in.	The settlements are proposed to be located within a natural setting, with a vegetation buffer and conservation areas within the areas zoned Environmental Protection 7A
14. Future development should reflect high quality design that is compatible with the local and regional attributes which make up the region's character, such as climate, landscape, history, topography, and existing built environment.	Future development is anticipated to be of a high quality.
15. Future development should be designed to ensure there is public access to an adequate supply of appropriately located public open space and recreation areas, to provide for a range of recreational uses and visual amenity.	Complies
<p>16. Future development should contribute to an open space network across the local government area that is designed to:</p> <ul style="list-style-type: none"> <li>● encourage and maintain pedestrian movement and public access to community resources or public places (such as watercourses, beaches etc.); and</li> <li>● to reflect each site's natural features and requirements for drainage and water quality maintenance, and nature conservation and biodiversity protection.</li> </ul>	<p>The proposed ecological corridors and open space network, complemented by cycleways, will encourage pedestrian and bicycle movement to the proposed whilst protecting and conserving ecological communities and contributing to the accommodation of on-site drainage.</p> <p>Complies</p>
17. Future development should encourage walkability and allow for easy access to public places, local shops, services and transport and lead residents to the service centre.	Development as anticipated in the Concept Proposal will encourage walk ability and increase accessible within the locality particularly to natural features including the foreshore.
18. Aboriginal cultural and community values should be considered in the planning for future development.	Complies
<b>Infrastructure Provision</b>	

Relationship of the Concept Proposal with the Settlement Planning Guidelines	
19. Future development should only be permitted where it can be provided with adequate, cost effective physical and social infrastructure to match the expected population for each settlement.	The Proposal will result in the efficient use of existing social and physical infrastructure.
20. Future development should strengthen the efficient use of infrastructure, services and transport networks and not overburden existing services elsewhere.	As above
21. Future development should be designed and located to minimise the need to travel; to maximise opportunity for efficient public transport and pedestrian access options; and to encourage energy and resource efficiency.	The proposal is for an extension of the existing urban areas
22. Future development should be designed and located to have well connected and accessible urban areas increasing the opportunity for public transport, cycling and walking for residents and visitors.	Complies.
23. Future development should be designed and located to avoid placing further local traffic demand on the Pacific Highway.	Complies
24. Future development should not contribute to ribbon/strip development nor impact on the safety and efficiency of major or arterial roads.	Complies
25. Future development should provide sufficient buffering distances and/or technological solutions between proposed development and existing or proposed major infrastructure, including rail corridors and airports.	Complies
26. Future development should be designed and located to maximise total water cycle management and minimise impacts on the environment.	The Proposal has the opportunity to improve the impact of stormwater quality and quantity in around Hearn's Lake, and will be designed to have minimal impacts of the environment.

Relationship of the Concept Proposal with the Settlement Planning Guidelines	
<b>Employment Lands</b>	
27. <i>Industrial land should be made available in a variety of locations to encourage new opportunities as they arise in all major regional centres, major towns and towns. However, location and availability should recognise the linkages between employment land and: settlement areas; markets, transport and access; environmental constraints; and cost effective provision of necessary services and infrastructure.</i>	Not applicable.
28. <i>In the case of the six local government areas in the Far North Coast region, consideration should also be given to the demands and impacts of South East Queensland on the regional economy's employment needs, market opportunities and transport requirements.</i>	Not applicable.
29. <i>Commercial land, should be located so that it can be conveniently serviced, is accessible to, and is consistent in scale with the settlement it serves or is planned to serve. If commercial land expansion is not adjacent to, or adjoining, an existing centre then any new development should not undermine the existing centre(s) and should be at a scale and location only to serve the target neighbourhood.</i>	Not applicable.

### 7.2.18 Coastal Design Guidelines for NSW

The NSW Coastal Guidelines 2003 were prepared by the Urban Design Advisory Service as part of the Government's Coastal Protection Package (the Design Guidelines). The Design Guidelines outline aims and objectives for addressing the physical planning of settlements within the area covered by the Coastal Zone.

The Design Guidelines provide specific urban design solutions and directions for the development of the range of settlement types (coastal cities to hamlets), and analysis and locational considerations. It provides design principles for:

- Defining the footprint and boundary;

- Connecting open spaces;
- Protecting natural edges;
- Reinforcing the street patterns; and
- Appropriate building for a coastal context.

The directions and aims outlined in the Coastal Guidelines have been used in establishing the principles for the physical planning components of the proposal and will be utilised in informing the development of more detailed design concept and site planning phases.

The relevant Coastal Guidelines and how they have been addressed in the Concept proposal is outlined below:

<b>Relationship of the Concept Proposal with the Coastal Design Guidelines</b>	
<b>2.1 Defining the Footprint and Boundary: Expanding the Boundary of a Settlement</b>	
<i>1. Where a settlement structure plan is needed to identify sites for development and subdivision both within the existing settlement and on its edges, it is essential to:</i>	
<i>a. enhance natural and heritage features and views</i>	The proposal will enhance the natural features of the site through the rehabilitation and restoration of the conservation areas.
<i>b. retain existing vegetation and ecology</i>	The proposal retains significant areas of existing vegetation including all vegetation within the 15.5 hectares of the site set aside for conservation areas – refer Part 4.6 of the <b>Urban Form and Landscape Plan – Appendix 2</b> and the <b>Ecological Survey &amp; Assessment Report – Conacher Environmental Group – Appendix 11</b> . These areas are proposed to be appropriately restored as part of the vegetation management plan.
<i>c. reinforce and continue existing open-space networks and greenbelts, through and between settlements</i>	The proposal maintains and improves open space connectivity along the coastal foreshore, and introduces two access points to the foreshore from within the site.
<i>d. reinforce and continue the urban structure of the existing settlement and its centre or main street</i>	The proposal reinforces the existing pattern of development from Sandy Beach and incorporates an urban structure consistent with the aims of the guidelines.
<i>e. utilise existing services, infrastructure and co-locate facilities</i>	The proposal will utilise existing services where possible.

<b>Relationship of the Concept Proposal with the Coastal Design Guidelines</b>	
<i>f. optimise under-utilised infrastructure, such as public transport, shops and community facilities, and retail and commercial areas</i>	N/a
<i>g. provide a permeable block and lot pattern in sympathy with the topography and land uses</i>	The proposal incorporates a permeable street block pattern and has been designed in recognition of the natural features of the site and the topography.
<i>h. relate higher density housing to the pattern of built form within the existing settlement</i>	N/a
<i>i. design blocks, lots and buildings together to ensure the efficient use of land</i>	The concept residential subdivision layout will ensure the efficient utilisation of the land.
<i>j. provide or retrofit to achieve water-sensitive urban design initiatives locally and on sites</i>	Significant water sensitive urban design measures are proposed including approximately 4 kilometres of bio-swales to ensure an improved outcome in terms of runoff into receiving waters including Hearn's Lake.
<i>k. achieve walking and cycling distance to places of importance within the settlement or provide new local centres within the catchment of residential areas.</i>	Extensive cycle and pedestrian paths are incorporated in the concept layout.
<b>2.2 Connecting Open Spaces</b>	
<i>1. Locate and connect new and existing open spaces which protect and maintain:</i>	
<i>a. nature reserves, conservation areas, park lands and environmental protection areas</i>	Approximately 49% of the site is proposed as open space and conservation areas. The layout is designed to enable extensive buffers between developed areas and the ICOLL of Hearn's Lake and to protect the coastal dune system.
<i>b. the natural and rural setting of the settlement including the scenic values of the visual catchment</i>	The planning of the site is designed to ensure the primacy of the landscape setting in terms of the views through and over the site.
<i>c. remnant native vegetation.</i>	Significant areas of natural vegetation are proposed to be reserved through the conservation areas. This includes the retention of substantial areas of habitat including the endangered ecological communities Coastal Saltmarsh and Swamp Sclerophyll Forest.
<i>2. Establish continuous ecological corridors</i>	The retention of vegetation within reserve

Relationship of the Concept Proposal with the Coastal Design Guidelines	
<i>to incorporate existing remnant vegetation by connecting reserves and conservation areas from the hinterland or surrounding mountains to the coastal edge.</i>	areas to the east of the site will maintain any connectivity along the dunal system between areas to the south and north of the site. The retention of the endangered ecological communities will aid in conservation of the threatened species observed within the site.
<i>3. Provide setbacks to protect property from the effects of coastal erosion, flooding and bushfire.</i>	The location of the proposed residential subdivision has been determined having regard for the flooding line (incorporating climate change impacts to the year 2100); bushfire assessment and the impact upon coastal erosion.
<i>4. Locate open-spaces to build on the special attributes of an area for long-term public amenity and identity of the place. An open-space network may include hill tops, river frontage, mature trees, places with panoramic views, rocky outcrops and remnant vegetation.</i>	The open spaces and environmental protection areas within the site areas will ensure the long term amenity and identity of the place is maintained.
<i>5. Where feasible preserve settings for places of cultural heritage within the open-space network.</i>	Complies.
<i>6. Provide areas within the open-space network sufficient to detain and cleanse stormwater runoff and avoid impacting sensitive ecologies.</i>	The open space network and conservation areas are an important element in the development of the WSUD strategy, incorporating the bio-swales, water quality control ponds to ensure that runoff discharged to Hearn's Lake is of a quality that will not adversely impact on the lake hydrology and associated ecosystems.
<i>7. Establish edge open-spaces with streets and pedestrian pathways. These are best located within the development footprint of the settlement, rather than in an open-space zone.</i>	Edge open spaces are provided and include a system of street verges.
<i>8. Provide pedestrian and cycle access that:: a. does not compromise the ecological values of high conservation areas b. connects important places throughout the settlement c. connects residential areas to commercial and retail locations without compromising the visual, aesthetic or ecological values of the foreshore.</i>	The pedestrian and cycle paths are generally located within the residential subdivision. Access is provided to the Lake and to the foreshore.
<i>9. Provide a variety of large and smaller open spaces to serve a range of different</i>	The plan incorporates recreation areas to accommodate pocket parks and playgrounds

<b>Relationship of the Concept Proposal with the Coastal Design Guidelines</b>	
<i>active and passive recreational roles, for example:</i> a. <i>playing fields</i> b. <i>playgrounds and small pocket parks</i> c. <i>walking and cycling connections</i> d. <i>places and activities for people with physical disabilities.</i>	and to achieve walking and cycling routes, including for people with disabilities.
<i>10. Co-locate recreational facilities with shops, schools and other community facilities to reduce parking and minimise walking distances.</i>	N/a
<i>11. Landscape design of open spaces should reflect the different qualities of the location and their functions.</i>	Refer detailed Landscape Plan – Appendix 2
<b>2.3 Protecting the Natural Edges</b>	
<i>1. Define the key characteristics and functions of public spaces along the foreshore with particular regard for sites of significant social and cultural importance.</i>	The proposal provides for two pedestrian path connections to the coastal beach from the site.
<i>2. Maintain foreshore areas and setbacks in public ownership.</i>	The subject site is setback at a distance of approximately 80 metres from the foreshore MHW, and is retained in public ownership.
<i>3. Ensure that existing and remnant native vegetation is protected through generous setbacks and defined points of access.</i>	Significant setbacks to the residential development are maintained to ensure the retention of remnant native vegetation.
<i>4. Provide pedestrian access to and along the foreshore with provision for those with less mobility.</i>	The proposal provides for two pedestrian path connections to the coastal beach from the site.
<i>5. Avoid the remodelling of foreshore areas to ameliorate coastal processes by buildings or other structures.</i>	No remodelling of the foreshore area is proposed.
<i>6. In new areas provide edge roads (or unformed pedestrian pathways) between all urban areas, foreshore reserves and orient streets to provide:</i>	Edge roads are incorporated where appropriate to the majority of the residential development.
<i>a. direct pedestrian access to the foreshore</i>	Direct pedestrian access to the fore shore is provided.
<i>b. views to the foreshore as well as distant views and vistas.</i>	Views to and from the foreshore are maintained.
<i>7. Define clear pedestrian and vehicular entry points and access routes through the</i>	The pedestrian connections to the foreshore will be clearly marked, and fenced to



Relationship of the Concept Proposal with the Coastal Design Guidelines	
<i>foreshore reserve to reduce the impact of traffic through dunes, coastal vegetation and other fragile areas.</i>	minimise potential for impacts on the dune ecology.
<i>8. Design and locate foreshore facilities, such as carparks, toilet blocks and picnic areas, to reduce their visual intrusion on the foreshore, view corridors and vistas.</i>	Refer to the landscape proposal.
<i>9. Encourage public rather than private jetties and boat facilities.</i>	No jetties are proposed.
<i>10. Ensure the ecological integrity of vegetation on the foreshores and headlands is not compromised by creating views and outlook from private properties and by encouraging filtered views.</i>	Complies.
Setbacks	
<i>11. Areas adjoining freshwater estuarine, coastal habitats and the coastal edge are managed to reduce land use impacts through setbacks that also supports the protection of properties from erosion, protection of sensitive ecologies, provision of public access along the foreshores and to natural areas, provision of visual amenity along the foreshore, protection of properties from the effects of sea-level rise, improvement of water quality.</i>	The proposed residential subdivision has been located and designed in response to the recommended setbacks established as a result of detailed assessments of: the ecological constraints; flooding; coastal hazards; and the impacts of climate change to the year 2100. Refer to detailed assessments by Conacher Environmental Group at <b>Appendix 11</b> , and Worley Parsons at <b>Appendices 17-21</b> .
<i>12. Setbacks should also address coastal erosion hazards such as storm surge events and river flooding, long-term shoreline recession and sea-level rise, cliff retreat and catastrophic collapse, sand drift hazard, entrance stability, estuarine erosion and changes in tidal current position.</i>	Complies. See above.
<i>13. Setbacks are designed to protect ecosystems and reserves covered under SEPP 14 wetlands, SEPP 26 littoral rainforest, SEPP 53 koala habitat as well as salt-marsh and mangrove communities, riparian vegetation, frontal dunes and headlands, national parks, protected areas and reserves.</i>	While there are no SEPP 14 wetlands or SEPP 26 littoral rainforests in relation to the site, the sites ecological values will be retained through the establishment of the conservation areas proposed, including the more ecologically sensitive lands and environment associated with Hearn's Lake. The conservation areas will also act as a buffer in protecting the sensitive vegetation and habitat

Relationship of the Concept Proposal with the Coastal Design Guidelines	
	types within Hearn's Lake from the impacts of adjacent development (Refer Ecological Survey And Assessment Report – Conacher Environmental Group – <b>Appendix 11</b> ).
<i>14. For new developments the foreshore setbacks should be at least 50m wide as a precautionary measure where possible.</i>	The approximate setback of development to the original boundary at the edge of the Pacific Ocean is 80 metres.
<i>15. Setbacks may need to be marked and their vegetation preserved. Setbacks should where possible be increased to 100m or more where they are adjacent to ecologically sensitive areas or in situations where the coastal erosion hazard requires greater distance.</i>	Complies. See above.
<i>16. Setbacks for redevelopment should consider a 100 year planning timeframe to address shore line retreat and sea-level rise.</i>	Appropriate setbacks have been incorporated having regard for the impacts of climate change. Refer to the Climate Change Assessment by Worley Parsons at <b>Appendix 18</b> .
<i>17. Coastal estuary planning for local areas must detail the issues place-specifically and follow guidelines in the Coastal Zone Management Manual.</i>	Complies. Refer to the Assessment by Worley Parsons at <b>Appendix 17</b> .
<i>18. Development on frontal dunes is avoided.</i>	Complies.
<i>19. Set new development back from the foreshore edges of the ocean, lakes and other waterways to protect visual amenity and create opportunities for public access.</i>	Complies. See above.
<i>20. The design of buildings and other structures on properties adjoining the foreshore complements the function and character of the foreshore.</i>	Complies. The setbacks and proposed built form controls will ensure that the development is subservient to the landscape setting and views from the foreshore.
<i>21. Setbacks in public ownership where ever possible, allow opportunities for public access and have limited development including no roads, private allotments,</i>	New public access are proposed to the foreshore (refer to <b>Appendix 2</b> ).

Relationship of the Concept Proposal with the Coastal Design Guidelines	
infrastructure and retaining walls in these locations.	
<b>2.4 Reinforcing the Street Pattern</b>	
<p><i>A street pattern is unique to each settlement and as a broad framework should include:</i></p> <ul style="list-style-type: none"> <li><i>• a main access road linking the settlement to the highway or freeway, providing entry to the settlement. Smaller settlements generally have a single one-way-in, one-way-out main road. This may be an unsealed or rustic road. Other larger settlements may have the highway passing through the main street bringing opportunities for increased economic and social benefits. Settlements with higher volumes of through traffic may have by-passes that completely circumvent the settlement</i></li> <li><i>• a centrally located main street defining the commercial and social centre and acting as the main public transport route</i></li> <li><i>• edge streets fronting reserves and open spaces, defining the boundary of the settlement and providing asset protection zones for bushfire management</i></li> <li><i>• residential streets with limited traffic flows</i></li> <li><i>• laneways serving residential and commercial lots</i></li> <li><i>• pedestrian pathways on all streets except freeways, highways and cycleways.</i></li> </ul>	<p>The internal street pattern has been designed to achieve a hierarchy of road types incorporating a main collector road through the site as the edge street. The plan establishes permeable access for vehicles, pedestrians and cyclists, including local streets and laneways to share the traffic loads and maintain residential amenity.</p> <p>The pattern builds upon and connects with the street pattern established in Sandy Beach to the South.</p>
<i>Reinforce the street pattern can be achieved by:</i>	
<i>1. Building on the original and established street and block patterns in terms of the pattern of circulation, access to lots and uses.</i>	
<i>2. Ensure the settlement is easily navigable and logical in terms of access and location of uses.</i>	

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3. Optimise the number of connections within the street hierarchy. The traditional grid provides high accessibility and permeability for pedestrians and vehicles.	
4. Recognise or design streets in response to the topography and other natural features by ensuring a predominance of streets that relate to the original landform.	
5. Protect streets that provide access and views to the coast, foreshores and headlands, other significant natural features and places of public importance.	
6. Allow for changes on private land whilst valuing the qualities of individual streets including: <ul style="list-style-type: none"> <li>a. their order within the hierarchy</li> <li>b. access and street address</li> <li>c. carriageway, footpath and reserve alignments, building setbacks</li> <li>d. street trees which will offer filtered views of the</li> <li>e. vistas and view corridors.</li> </ul> coast	
7. Minimise road crossings over waterways and water bodies.	
8. Encourage grass swales and pervious surfaces to increase stormwater infiltration.	Approximately 4 kilometres of bio-swales are proposed as part of the Water Sensitive Urban Design and water management strategy.
2.5 Appropriate Buildings for a Coastal Context	
Built Form Guidelines for All Sites	
1. Develop risk assessment and responses to address the effects of coastal processes. Locate and design buildings to respond appropriately within the local hazard context.	The proposed layout has been developed in response to the implications of coastal processes – refer Worley Parsons report at <b>Appendix 21</b> . All development areas incorporated in the residential subdivision layout have been sited and located in response to the long term coastal hazards.
2. Reinforce the clarity of the settlement structure with new buildings that are appropriate in terms of location, uses, scale, height and site configuration.	The proposed residential subdivision layout, landscape master plan and architectural building types have been developed to ensure

Relationship of the Concept Proposal with the Coastal Design Guidelines	
	clarity and consistency in the overall development setting having regard for the site's particular constraints and opportunities.
<i>3. Reinforce the desired future character of the settlement.</i>	The proposal aims to achieve a cohesive and appropriate future character in response to the landscape setting, and sensitive to the ecological context.
<i>4. Consider the appropriateness of new buildings within the whole streetscape, rather than each building as a stand-alone object.</i>	The built form development pattern as indicatively shown in <b>Part 3.13 Neighbourhood Design</b> of <b>Appendix 2</b> , will aim to achieve cohesive streetscapes throughout the development.
<i>5. Maintain consistent street setbacks and street-edge configurations.</i>	Building footprints and their location will be addressed in future development applications.
<i>6. Ensure buildings address the street by providing direct and on-grade entries to the street for residential, commercial and retail purposes. and lengths.</i>	The architectural concept incorporates development options that will appropriately address the street. The building siting and design will be considered in more detail as part of future development applications.
<i>7. Rationalise car-related uses on site, such as driveways widths</i>	Specific site design including the design of driveways will be considered in more detail as part of future development applications.
<i>8. Protect views from public places and streets by maintaining consistent setbacks along streets and not placing buildings in view corridors.</i>	Complies.
<i>9. Protect local views and vistas throughout and surrounding the settlement from public places by relating new buildings to the topography, reducing heights to maintain views of the surrounding landscape and maintaining consistent, height, bulk, scale with the street and local context.</i>	Complies.
<i>10. Ensure that controls are coordinated to produce the desired building form and site configuration for developments. These controls include uses, building height, building depth, building separation, street setbacks, side and rear setbacks, and floor space ratio.</i>	Built form guidelines are proposed to be developed in accordance with the architectural concept. Building design will be considered in more detail as part of future development applications.

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<p><i>11. Ensure developments and neighbouring properties have:</i></p> <ul style="list-style-type: none"> <li><i>a. access to daylight</i></li> <li><i>b. access to natural ventilation</i></li> <li><i>c. visual privacy and acoustic privacy</i></li> <li><i>d. private open space</i></li> <li><i>e. a pleasant microclimate.</i></li> </ul>	<p>A development setback to the neighbouring properties along the southern boundary of 15 metres is proposed (refer Part 3.9 of <b>Appendix 2</b>).</p>
<p><i>12. Achieving amenity relates to the design of individual buildings and, in particular, to:</i></p> <ul style="list-style-type: none"> <li><i>a. building orientation and depth</i></li> <li><i>b. the size of the lot</i></li> <li><i>c. open-space location, size and connection with the inside of the building</i></li> <li><i>d. carparking, location and access</i></li> <li><i>e. pedestrian access from the street</i></li> <li><i>f. street edge configuration and building separation</i></li> <li><i>g. mature trees, vegetation and soil areas.</i></li> </ul>	<p>Refer to architectural building typology concepts at Part 3 of <b>Appendix 2</b>. Building design will be considered in more detail as part of future development applications.</p>
<i>Prominent coastal sites</i>	
<p><i>1. Recognise and document prominent coastal sites having significance to the local or regional area because of their visual, historic, public or social worth.</i></p>	<p>The visual significance of the site is proposed to be retained.</p>
<p><i>2. Ensure development (or redevelopment) on these sites is no bigger in scale, depth, floor-space ratio, height and footprint than existing buildings on the site unless urban design controls generate an alternative solution which responds to the site's significant characteristics and the desired future character of the area. This is particularly important for visually prominent sites such as headlands, cliff edges and prominent coastal ridges.</i></p>	<p>The scale of development proposed is consistent with the residential scale of Sandy Beach.</p>
<p><i>3. Create a public interface to the site and ensure development does not degrade the public nature of the site or the public open spaces adjoining or surrounding the site by:</i></p> <ul style="list-style-type: none"> <li><i>- reinforcing public and active uses</i></li> <li><i>- setting development back a sufficient distance to</i></li> <li><i>ensure adjoining public open spaces are not effectively privatised</i></li> <li><i>- ensure building edges adjoining public</i></li> </ul>	<p>The site design incorporates new open space and new public access ways to the foreshore. The proposed development areas are sites and designed to ensure that the landscape setting of the coast is protected.</p>

Relationship of the Concept Proposal with the Coastal Design Guidelines	
<i>spaces reinforce public uses along and within public land.</i>	
<i>4. Mitigate overshadowing of public open spaces and the foreshore by applying the standard, no overshadowing before 4pm midwinter and 7pm Summer Daylight Saving Time.</i>	The proposed residential subdivision layout and proposed architectural concept will ensure no overshadowing of areas beyond the site (refer Part 3 of <b>Appendix 2</b> ).
<i>5. Define the boundaries of the site with a public edge, such as pedestrian pathways, public laneways or public streets, that connects to the street hierarchy.</i>	The majority of the edge to the proposed open space and environmental protection areas is bound by a public road incorporating footpaths and road verges.
<i>6. Ensure buildings have well articulated and scaled elevations.</i>	The architectural concept incorporates well articulated elevations for the 6 building types (refer Part 3 of <b>Appendix 2</b> ). Building siting and design will be considered in more detail as part of future development applications.

### 7.2.19 Coffs Harbour Council Interim Settlement Strategy

The Coffs Harbour Settlement Strategy, A Settlement Strategy for Coffs City to 2031 (Feb 2008) has been prepared to provide a blueprint for a city with accessible and reliable transport, a strong regional economy, a vibrant community and a healthy natural environment. The strategy was prepared under the requirements of the North Coast Regional Environmental Plan (REP).

The principle of the strategy is based on achieving social, economic and environmental sustainability. In an attempt to manage Coffs Harbour city's growth in a sustainable way, a number of strategic options are set out in order to achieve this.

This proposal from conception to design has sought to address the principles of sustainable development in order to ensure it would enhance the local area socially, economically and environmentally.

The site is located in a zoned urban area within the Interim Settlement Strategy Maps (Map 5). Key strategies relevant to this proposal is to recognise the importance of the ICOLL (Hearnes Lake is identified as a *Intermittently Closed and Open Lake or Lagoon*); and to ensure development addresses impacts of Pacific Highway and Pacific Highway Strategy. The strategy also states: 'allow development to proceed in Hearnes Lake in accordance with DCP'. The latter key strategy is addressed in **Section 7.1.14** above.

As discussed in **Section 8.2**, the proposal has been designed in a manner to ensure the qualities of Hearn's Lake and its environs are enhanced and maintained. A vertical buffer recommended by Worley Parsons is applied to the residential component of the proposal in regard to climate change implications which will ensure an appropriate setback to the ICOLL; an appropriate water sensitive urban design strategy employed in relation to surface water runoff; and the reinstatement and rehabilitation of the landscape and conservation areas, will ensure the protection of the ICOLL.

In relation to Pacific Highway an appropriately formed landscape edge is proposed along the highway as part of a scenic buffer. In relation to impacts of noise of the highway on residential development, noise barriers and the proposed internal design of the subdivision and dwellings are to be implemented to ensure noise is appropriately addressed.

Materials and colours consistent with the coastal character of the locality will be used, measures used to ensure water and energy usage is minimised have been incorporated, while the use of indigenous planting has been incorporated in the landscaping scheme.

This will ensure the proposal complies with the environmental and social sustainability objectives of the Interim Settlement Strategy, and the strategy to recognise the ICOLL.

In terms of economic sustainability, employment opportunities will be presented during the construction phase, while the resulting workforce will increase the workforce available to the area and indeed the number of users of local services and facilities.

## **7.3 Commonwealth Legislation**

### **7.3.1 *Environment Protection and Biodiversity Conservation (EPBC) Act, 1999***

The EPBC Act is administered by the Federal Department of Environment and Heritage and aims to protect the environment, with respect to matters of National Environmental Significance including:

- World Heritage properties;
- National heritage properties;
- Listed threatened or migratory species;
- Ramsar wetlands; and
- Commonwealth marine environments.

Under the EPBC Act approval is required for activities that are likely to have a significant impact on a matter of national environmental significance.

The **Conacher Environmental Group's Ecological Survey and Assessment (Appendix 11)**, concludes that the proposed development will not significantly impact nationally matters of



national environmental significance. However, the consultants undertook to refer the details of the proposal and their assessment to the Department of Environment and Heritage as a precaution. A response from the Department states that: *"The referral has now been considered under the EPBC Act and I have decided that the action is not a controlled action. Approval is therefore not needed under Part 9 of the Act before the action can proceed"*.

## 8 ENVIROMENTAL ASSESSMENT

### 8.1 Overview

The Sandy Beach North proposal aims to achieve a benchmark development in terms of achieving Ecologically Sustainable Development. The concept design responds to the increased demand for high quality, environmentally responsive residential development within Coffs Harbour, whilst ensuring that potential environmental impacts are and will be suitably addressed during the planning process from future Project or Development Applications to Construction Certificate and on ground construction.

On 20 October 2006 the Director General issued Environmental Assessment Requirements for the proposal. Supplementary guidelines were provided on 26 February 2008. The DG requirements nominated key issues to be addressed within the Environmental Assessment. These issues have been addressed at various sections within the preceding statutory compliance section, with further detail and analysis provided below.

### 8.2 Subdivision Design and Layout

#### 8.2.1 *Response to Sainty and Associates Report*

***The proposed subdivision of the land should be consistent with 'Sandy Beach North Environmental Constraints and Development Potential Map' attached to the report prepared by Sainty and Associates, Environmental Constraints Analysis, Lot 22 DP 1070182 Pacific Highway, Sandy Beach, September 2006 (Sainty Report).***

***Should the proponent propose development beyond future development potential areas, then suitable justification and sound technical arguments are required. [DGRs Key Issue 1.1]***

The findings and recommendations and constraints map of the Sainty Report (See **Appendix 10**), which provides the basis for this key issue, have been carefully and comprehensively reviewed by consultants Conacher Travers in relation to the ecological value of land; and Worley Parsons (formally Patterson Britton Consulting Engineers) in relation to flood impacts and climate change. Based on the outcomes of those reviews, the Concept Plan incorporates development 'beyond future development potential areas' as referred to above and as outlined in the Sainty Report (p11), however a comprehensive investigation was undertaken, justifying and supporting technical arguments which have been developed in order to demonstrate the suitability of the proposal.

Conacher Environmental Group (formerly Conacher Travers) undertook a review of the assessment methodology, and the implementation of buffer zones. Their review is attached at Appendix 14.

In relation to the assessment methodology incorporated in the Sainty Report, they state (pp1-3):

*The Sainty and Associates Report relies on the vegetation mapping from Councils Draft Vegetation Conservation Strategy. It has been proven by detailed site vegetation survey by Conacher Travers that the vegetation classification maps of this strategy do not correspond to the vegetation actually present on the site. Therefore the use of these classifications for comparison purposes (Section 2.3) will result in inaccurate determinations of the Conservation Ratios of the vegetation types present. This has resulted in Sainty and Associates determining that the open forest / woodland between Hearn's Lake and the Pacific Highway has a high conservation significance rating.*

*No evidence of detailed site survey for vegetation types is provided in the Sainty and Associates Report. Therefore the vegetation types determined by Conacher Travers form the most accurate survey details for the site...*

*The recommendation of buffer zone widths based on the height of vegetation is not an accepted methodology and is not based on scientific evidence. Sainty and Associates identify that the 50 metre buffer is to reduce edge effects and to allow for regeneration. Based on this statement there is a clear intent indicated in the Sainty and Associates Report that they are promoting the site to be utilized for the expansion of endangered ecological communities.*

*Sainty and Associates also identify that any bushfire asset protection zones are to be outside of the buffer zones. Therefore the buffer zone would essentially become a development exclusion zone.*

*In determining the width of buffer zones of 30, 50 or 100 metres Sainty and Associates have not provided any evidence that they have considered the proposed stormwater management measures, habitat protection or other environmental protection/management strategies proposed.*

*Sainty and Associates quote Bennett and Mulongoy (2006) in relation to the purpose of a buffer zone however this quote is incomplete. The more complete version of this quote is:*

*"The prime purpose of a buffer zone is to insulate areas where biodiversity conservation is the primary objective from potentially damaging external influences, and particularly from those caused by inappropriate forms of land use. In principle, this function therefore permits a range of sustainable human activities."*

*Therefore there is a stated intent in the purpose of a buffer zone that its function permits a range of sustainable human activities. This factor has not been identified by Sainty and Associates. It appears that the buffer zones are in fact development exclusion zones. In relation to the proposed buffer zone of 50 metres around the southern area of Swamp Sclerophyll Forest that areas of existing residential development, the sewer pump station and the overflow of this sewer pump station occur within 50 metres buffer zone. Likewise a 750 metre length of the Pacific Highway would be included within the required buffer zone to the vegetation identified as a high conservation area. Sainty and Associates have not identified how*

*the functions and use of the sewer pump station, residential area and Pacific Highway will be curtailed and relocated to accommodate the provisions of a 50 metre buffer.*

#### *IMPLEMENTATION OF BUFFER ZONES*

*Buffer zones are sometimes implemented in planning/development proposals in conjunction with engineering measures and environmental management strategies to manage and reduce the impact of a development on an area of land to be conserved for biological purposes. While some government departments may have recommended setbacks to creeks, lakes, water bodies etc there is no legislative requirement to implement a standard buffer zone to areas of land proposed to be retained for conservation purposes.*

*In relation to the development applications the legislative requirements in relation to threatened species, endangered ecological communities or their habitats is to undertake an assessment to determine if the proposed development is likely to result in a significant effect on threatened species or endangered ecological communities.*

*The assessment undertaken by Sainty and Associates did not undertake such a threatened species assessment but instead completed a report which determined the extent of buffer zones recommended for the site. In stark comparison to the recommendations by Sainty and Associates it is interesting to note that the Independent Review Panel for the South Coast Sensitive Urban Lands Review (Report by Mr A Refshauge Panel Chair to the Minister For Planning, October 2006) recommended the implementation of specific buffer zones of 30 metres around sensitive areas at only one site out of sixteen (16) sites considered to be environmentally sensitive within the South Coast Sensitive Urban Lands Review.*

The report's conclusion in relation to the ecological issues raised are as follows (pp3-4):

*The Sainty and Associates Report has recommended buffer zones (development exclusions zones) of 30 metres, 50 metres and 100 metres around vegetated areas with insufficient assessment and justification.*

*Bennett and Mulongoy (2006), a key reference used by Sainty and Associates, have identified that ... "Decisions to restrict human activities in buffer zones will also impose costs on the landowners and users, raising the question of compensation".*

*In regard to the overall proposal and recommendation for extensive implementation of buffer zones throughout the site, the Sainty and Associates Report is a significant variance to currently accepted coastal development options. The application of large width buffer zones with no consideration of future ownership and management responsibilities is at variance with other significant proposals being considered by the Department of Planning under Part 3A of the EP&A Act.*

*The implementation of the buffer zones as recommended by Sainty and Associates should not be adopted for this site as they:*

- I. *Have not been determined on the basis of specific site characteristics, including site zoning.*
- II. *Do not incorporate any scientific assessment or justification in relation to buffer zone width.*
- III. *Do not incorporate any provision or consideration of ongoing management responsibilities.*
- IV. *Have not undertaken an appropriate assessment in relation to the requirements of the EP&A Act.*
- V. *Have not considered the proposed stormwater drainage and environmental impact mitigation measures.*

Based on the analysis established by *Conacher Environmental Group* the implementation of the buffers proposed by the Sainty Report in relation to vegetated areas have not been adopted.

Rather, in considering the principles of the Concept Plan that underpins the two components of the proposed urban development of the site (residential and environmental protection), the comprehensive environmental constraints assessment undertaken by *Conacher Environmental Group* (**Appendix 11**) recommends that, in realising the urban development of the site, of substantial areas be established as conservation zones within the site which are proposed to be focussed around Hearn's Lake and the Coastal foreshore. These areas are incorporated into the concept proposal as a means of maintaining and enhancing the ecological values of the site as well as providing appropriate management measures to ensure their conservation. Further, they will also act as a buffer in protecting and conserving the sensitive vegetation and habitat types within Hearn's Lake.

In relation to the environmental constraints associated with a 'vertical buffer' to protect Hearn's Lake (as an Intermittently Closed and Open Lake and Lagoon), Worley Parsons (formerly Patterson Britton and Partners) has provided a comprehensive analysis and review (see *Scientific Assessment Of Entrance Berm Elevation Fort Hearn's Lake, Sandy Beach North – January 2007 - Appendix 19*).

Subsequent to that review and following the direction of the Department of Planning in relation climate change considerations, Worley Parsons undertook additional investigations (*Climate Change Assessment For Proposed Development At Sandy Beach North – August 2008 – Appendix 18*).

The conclusions of the subsequent review are as follows (p7):

*... the philosophy for determining ICOLL setbacks as proposed by Haines (2005) be adopted for the Sandy Beach North Development, **but that it be applied based on the recorded and analysed photogrammetric data included in the Patterson Britton and Partners Report dated January 2007.** On this basis, it is recommended that a setback*

*consistent with the 2.55 mAHD contour should apply. This setback makes sufficient allowance for ICOLL expansion due to sea level rise predictions to the Year 2100. [Emphasis added]*

The outcome of Worley Parsons review has been the establishment of a 'vertical buffer' up to RL2.55 mAHD for the whole site.

### **8.2.2 Coastal Layout**

**Demonstrate that the subdivision design and layout considers the Coastal Design Guidelines for NSW (2003), in particular connections to existing and planned areas. [DGRs Key Issue 1.2]**

The NSW Coastal Guidelines 2003 were prepared by the Urban Design Advisory Service as part of the Government's Coastal Protection Package (the Design Guidelines). The Design Guidelines outline aims and objectives for addressing the physical planning of settlements within the area covered by the Coastal Zone.

The Design Guidelines provide specific urban design solutions and directions for the development of the range of settlement types (coastal cities to hamlets), and analysis and locational considerations. It provides design principles for:

- Defining the footprint and boundary of a settlement;
- Connecting open spaces;
- Protecting natural edges;
- Reinforcing the street patterns; and
- Appropriate building for a coastal context.

Specifically, in response to the proposed connections and access to existing road networks, the Concept Plan incorporates the following:

- The proposed Pacific Highway upgrade which will provide access at the northern end of the site via the proposed Woolgoolga Interchange. The long term access via the interchange will provide residents of the proposed development as well as the existing Sandy Beach suburb with significantly improved access to both the north and south.
- Access into the site is also proposed from the south at two access points via the existing Sandy Beach suburb.

- Connectivity will be achieved both through the street geometry and generous public open space. All streets are open to vehicle traffic, yet they are also configured to serve and encourage those who wish to walk or cycle.

Additional landscape links will provide a high level of accessibility for new residents and substantially improve access for existing Sandy Beach residents, with

- Footpaths at major entry roads and collector road;
- shared ways at access roads,
- shared ways/pedestrian paths at lane access ways,
- green links – footpaths connecting parks to road and path systems,
- elevated boardwalks

The directions and aims outlined in the Coastal Guidelines have been used in establishing the principles for the physical planning components of the concept plan and will be utilised in informing the development of subsequent detailed design phases.

A detailed assessment against the Coastal Guidelines is provided in Section 7.2.17 of this report.

### **8.2.3 Environmental Buffer Zones**

**Provide environmental buffer zones to areas of conservation significance. A degree of flexibility can be considered to allow a suitable subdivision outcome, subject to justification, including offsets elsewhere on site. [DGRs Key Issue 1.3]**

As discussed above, the comprehensive environmental constraints assessment undertaken by *Conacher Environmental Group* (**Appendix 11**) recommends the establishment of substantial areas as conservation zones within the site focussed around Hearn's Lake and the Coastal foreshore. These areas are incorporated into the concept proposal as a means of maintaining the ecological values of the site, and to act as a buffer in protecting and conserving the sensitive vegetation and providing habitat for the threatened fauna species.

To maintain biodiversity, the areas indigenous vegetation is proposed to be planted. Particular attention has been paid to this aim through:

- generous riparian setbacks from Hearn's Lake edge (refer to Appendix 2);
- retention of visually significant stands of vegetation, which are focal points within the layout, and

- protection and enhancement of drainage lines and associated vegetation and habitat for Wallum Froglet species.
- The retention of all open space areas, which includes the riparian zones and stands of trees bordered by road edges,
- low fencing and interpretive signage to the riparian zones;
- restricting development to the flatter and higher areas with minimal tree cover, thereby minimising impacts to the overall site, particularly sensitive lake and riparian areas.

The potential impacts of the proposed urban development, incorporating residential and environmental protection, upon Hearn's Lake have been minimized by the establishment of an open space/conservation buffer of average width 100 metres around the lake edge. This buffer varies between 60 metres width and 150 metres width between the development edge and the lake edge. Those areas where the buffer widths are at their narrowest (60m) generally correspond with higher elevations where vegetation and ecological communities are less fragile than those at lower elevations and stronger associations with the normal vegetation and ecological processes of the lake edge. These lower areas are protected by buffers of greater width (100m+), which is considered more than adequate. (It should be noted that the site has previously been extensively cleared for grazing and sand mining).

A fencing regime is proposed to allow revegetation of degraded, sensitive and eroded areas. This fencing can be temporary in some areas to allow vegetation to establish. The planting of indigenous species should occur around parking areas to minimise visual impact and impact from run-off.

The concept plan and its urban form is a realisation of the vision and key design objectives and the physical attributes of site, notably:

- Hearn's Lake and riparian setback,
- vegetation cover, particularly heavier remnant cover within the northern and south western portion of the site,
- drainage corridors running into the site from existing Sandy Beach suburb and associated vegetation,
- vegetated coastal edge,
- water management, particularly flooding and protection of Hearn's Lake,
- proximity of Pacific Highway and associated noise and access implications,



- existing Sandy Beach suburb to the south,
- improving beach access and management of the coastal dune system, and
- landscape to reinforce significance of views onto and across the lake.

The outcome of the implementation of the proposed Concept Plan is to provide a high quality built environment integrated with open space which is reflective of the coastal setting. This can be achieved without the loss of significant habitat while at the same time improving the ecological values of the site by the enhancement, through protection and conservation, of existing and perimeter vegetation. Fundamental to the development of the site is the preservation and long term management of Hearn's Lake and its surrounds, as well as enabling the improvement of the environment of the lake system through implementation of best practice in Water Sensitive Urban Design.

#### **8.2.4 Areas dedicated for public purpose or Community Title**

##### **Identify areas to be dedicated for public purposes and/or areas to be managed under Community Title [DGRs Key Issue 1.4]**

Community title is proposed over the whole development. As discussed above, this is to include conservation areas and open space areas over approximately 49% of the whole site (refer to the **Subdivision Layout Plan** at **Appendix 4**).

A Community Trust is proposed to be established to maintain the site and ensure its long term health, viability and sustainability. Details of the Trust are outlined in the *Urban Form and Landscape Concept Report* at **Appendix 2**. That states (pp44):

*By adopting a Community Title system, residents will be able to determine the standard of maintenance of the open space and community facilities which provide the amenity and quality of their immediate environment, subject to minimum standards incorporated in the Community Management Statement.*

*In addition it will allow for the detailed and individual maintenance of environmentally sensitive land, which otherwise would become a burden for council. More importantly, Community Title, with its obligations, opportunities and openness, will encourage interaction, initiative and co-operation between householders for their mutual benefit. This should create a dynamic and organized community in social, economic and environmental terms.*

*The purpose of the Community Management Statement (CMS) is to set in motion a series of by-laws and other arrangements which will provide owners and occupiers with the best conditions possible for the enjoyment of their living style and the developer and statutory authorities with a level of certainty of outcome.*

### 8.2.5 Visual and Acoustic Screening to the Pacific Highway

#### **Address visual and acoustic screening to the Pacific Highway [DGRs Key Issue 1.5]**

A Noise Assessment has been undertaken for the site by Sinclair Knight Merz and is included at **Appendix 16**. Their assessment outlines a strategy to mitigate the impacts of road traffic noise impacts on the future residents along the western boundary of the site adjacent to the Pacific Highway. The Pacific Highway forms the western boundary of the site. Based on their assessment, the proposed development is “moderately affected by road traffic noise from the adjacent Pacific Highway”(pp14). This is the case under existing conditions and would be the case following the proposed planned upgrade of the Highway.

The consultants have provided noise control recommendations including the construction of a noise barrier to 4 metres in height and, additionally, recommendations in relation to the design and location of the residential housing adjacent to the Highway. They conclude that (pp14):

*Assuming these suggested options are employed, compliance with ECRTN criteria is expected to be achieved*

In relation to the building design of dwellings that will be located on the far western side of the development site adjacent to the Pacific Highway, a built form is proposed that aims to provide a secondary barrier effect (refer **Urban Form and Landscape Concept – Appendix 2**) (pp36).

*This will ensure internal noise levels within these dwelling are at an acceptable standard and also provide additional amelioration of noise impacts at residential locations further to the east. The Boundary subzone is created separately, as it plays a vital role in the sound attenuation of the Pacific Highway. The proposed building design is created to form a sound wall to the Western edge, with the house opening up to the East. The sound wall will included double-glazed fixed windows and heavy materials, culminating in a tall parapet to deflect noise over the development. This will work in association with the proposed stand-alone sound wall on the site boundary.*

In relation to visual impacts on the Pacific Highway, a substantial landscape buffer is proposed to ensure adequate screening adjacent to the road corridor. Visual impacts are dealt with in detail at Figure 38 of **Appendix 2**.

### 8.2.6 Visual Impacts

#### **Address visual impacts and relevant mitigation measures, in the context of adjoining and surrounding development, and the setting of the site, from all publicly accessible coastal locations (such as beaches and headlands). [DGRs Key Issue 1.6]**

A Landscape Concept Plan has been prepare by John Holland Landscape and is contained within the **Urban Form and Landscape Concept Document** at **Appendix 2**. This proposes

the establishment of a range of landscape features and elements that reflect the coastal location. The aim of the plan is to establish a visual character which is of a (pp18):

*...low-key, visually unobtrusive, quiet coastal town or hamlet nestled amongst the numerous canopy trees and lake hedges...The visual emphasis of the landscape treatment is bush to the boundary.*

As outlined in the Ecological Survey and Assessment Report conclusions, the Concept Plan proposes the retention, protection and restoration of approximately 21 hectares of vegetation, which will assist in maintaining the predominant landscape qualities surrounding Hearn's Lake.

Given the appropriate site design of dwellings, private open space, landscape, parking and vehicular arrangements as proposed in the Concept Plan, visual impacts on neighbouring residential properties will be minimised. Refer to detail discussion in Section 2.2 of **Appendix 2**, including for publicly accessible locations.

### **8.3 Flora and Fauna**

#### **8.3.1 Conservation of Animals, Plants and their Habitats**

**Outline measures for the conservation of animals and plants and their habitats within the meaning of the Threatened Species Conservation Act 1995 and Fisheries Management Act 1994. [DGRs Key Issue 2.1]**

The **Ecological Survey and Assessment** prepared by **Conacaher Environmental Group** is provided at **Appendix 11**. This report details the survey and research undertaken in determining the extent of flora and fauna and their habitats located on site. The investigations have identified seven threatened fauna species as follows (pp i):

*Detailed field surveys have identified a number of threatened fauna species [as listed in Schedule 2 of the TSC Act] within the site. These are:*

- *Wallum Froglet (Crinia tinnula);*
- *Black-necked Stork (Ephippiorhynchus asiaticus);*
- *Osprey (Pandion haliaetus);*
- *Glossy Black-Cockatoo (Calyptorhynchus lathami);*
- *Grey-headed Flying-fox (Pteropus poliocephalus).*
- *Eastern Freetail-bat (Mormopterus norfolkensis);*

- Greater Broad-nosed Bat (*Scoteanax rueppellii*);

No threatened flora species [as listed in Schedule 1 (endangered) or Schedule 2 (Vulnerable) of the **TSC Act**] were identified on the site. Two endangered ecological communities [listed within the **TSC Act**] were identified within the site. These are:

- Coastal Saltmarsh;
- Swamp Sclerophyll Forest on Coastal Floodplains;

The proposal incorporates residential land and areas to be retained for conservation. The areas of vegetation proposed to be retained contain endangered ecological communities and areas of habitat for the threatened fauna species observed.

The proposal will result in the removal or modification of approximately 27.8 hectares of vegetation and habitats and retention, protection and restoration of approximately 20.7 hectares of vegetation.

The protection and restoration of those areas will offset those areas to be removed as part of the proposal.

The conservation of vegetation and habitats within the site will occur through the preparation and implementation of an Ecological Site Management Strategy, prepared specifically for the proposal. The draft Ecological Site Management Strategy is included at **Appendix 12** and incorporates recommendations in relation to the following the following:

*Vegetation Management*

*Bushfire Management*

*Provision of Ecological Buffers*

*Erosion and Sediment Control*

*Stormwater Quality and Management*

*Cultural Heritage Values and Management*

*Community Education, Vigilance and Reporting*

*Prohibited Use Identification and Management*

*Native Fauna, Habitat and Feral Pest Management*

*Access, Signage and Fencing*

### *Monitoring and Reporting Regime*

In relation to the assessments undertaken by Conacher Environmental Group for the *Fisheries Management Act*, the proposed development is not likely to have a significant impact upon threatened species, endangered populations or endangered ecological communities (refer p67 of **Appendix 11**).

#### **8.3.2 Existing Wildlife Corridor Values**

**Outline measures for the conservation of existing wildlife corridor values and/or connective importance of vegetation on the subject land, including areas identified in the Sainty Report [DGRs Key Issue 2.2]**

The area proposed for development has been extensively surveyed by Conacher Environmental Group in 2003, 2004, 2005 and 2007. Details of the methodologies, findings and conclusions of these surveys are incorporated in the Ecological Survey and Assessment Report at **Appendix 11**. This includes surveys of the lands identified within the Sainty Report. Their analysis and response to the conclusions and outcomes of the Sainty Report is included as an attachment to that report.

In relation to the corridor values they state (pp44-45):

*Areas in the east of the site are mapped as regional corridors in the NPWS Regional Corridors and Key Habitats mapping. The mapped regional corridor within the east of the site is part of a regional corridor that extends from Moonee Beach Nature Reserve northward along the coast to Yuraygir National Park. This mapped regional corridor includes residential areas within Sandy Beach and Woolgoolga. The area occupied by Hearn's Lake is mapped as key habitats within this mapping.*

*The site is part of a fragmented local landscape. There are larger areas of higher quality vegetation to the south of the site located on the southern side of the Sandy Beach residential area. These vegetation and habitats are part of Moonee Beach Nature Reserve. There are similar disturbed vegetation and habitat types to the west of the site on the western side of the Pacific Highway. There are small areas of vegetation and habitats associated with Double Crossing Creek that extend to the southern side of Woolgoolga. Given the high amount of disturbance within the site including lack of continuous canopy cover and absence of understorey and groundcover in most areas the subject sites value as a local movement area is low.*

*The site is isolated from similar habitats to the west by the Pacific Highway. The site is bordered to the south by the residential area of Sandy Beach which interrupts any connectivity to/from the south. The dune vegetation in the east of the site forms part of a tenuous connection to vegetation to the south of the site along the immediate dune and hind dune area to north of the site. The retention of vegetation within reserve areas to the east of the site will maintain any connectivity along the dunal system between areas to the south and north of the site.*

Therefore the key connection across the site will be maintained and improved through the retention of the conservation areas along the dunal system and adjacent to the lake.

In response, the Landscape Concept (**Appendix 2**) is proposed to incorporate the following approach and measures (pp22):

*The landscaping scheme of the development will aim to protect, enhance and expand core vegetation communities, improve local amenity and seek to reintroduce habitat in a number of ways:*

- Through the re-establishment of endemic communities in the designated riparian corridor,*
- Through the integration of water management strategies which permeate the site,*
- The rain garden laneways, the bioretention street corridors, and the ornamental wetlands, which will be planted with endemic macrophytic species. There will be minimal import and export of soil to the site, since the makeup of the soil and the habitat it provides has developed to be specific to site conditions.*

*Site specific measures will be developed to ameliorate the effects of development within the site as a result of the proposed development. These will include the retention and protection of aquatic habitats and associated vegetation, retention and maintenance of reserve areas, retention of hollow trees and identification of use by fauna, protection of some areas of Wallum Froglet habitat, provision of compensatory habitat and vegetation management strategies...*

*The Heath Communities provides high levels of nectar feeding habitat for bird and mammals species within the various native shrubs. The less disturbed areas of Wet Heath provide shelter opportunities for a number of bird and terrestrial mammal species. This community is highly disturbed having suffered constant slashing, burning and grazing over a long period.*

*The Wallum Heath and Sedgeland vegetation communities occur in low lying areas of the site and area associated with habitats prone to periodic inundation and drying. These vegetation communities provide suitable habitat types for a range of amphibian species and limited habitat for small terrestrial mammal, wading bird and reptile species.*

*The aquatic habitats associated with Hearn's Lake provide suitable habitats for a range of aquatic and semi-aquatic fauna species. These aquatic habitats support a number of fish and wading bird species.*

*The movements of amphibians, reptiles terrestrial mammals and arboreal mammals through the subject site from other areas of suitable habitat are restricted by the presence of the Pacific Highway to the west, the Tasman Sea to the east, residential*

development to the south, and the deep waters of Double Crossing Creek to the north. It is considered however that a thin line of connectivity exists along the coastal dunes within the lands zoned 6A Open Space Public Recreation.

### **8.3.3 Koala Plan of Management**

#### **Address the relevant controls within Council's Koala Plan of Management. [DGRs Key Issue 2.3]**

Consultants Conacher Environmental Group undertook a Koala Habitat Assessment - April 2007 (**Appendix 11**) in accordance with Coffs Harbour Council's Koala Plan of Management:

*The Assessment has been carried out in accordance with the Coffs Harbour Koala Plan of Management (CHKPOM).*

*Small areas of the subject site have been mapped as Secondary Koala Habitat within the CHPOM. There are no other occurrences of any mapped Koala habitat type (Primary Koala Habitat, Tertiary Koala Habitat) within the site. Despite the occurrence of mapped Secondary Koala Habitat within the site, the Koala has not been recorded within the site during extensive survey by Conacher Travers in 2003, 2004 and 2005. A search of the NSW Wildlife Atlas (DEC 2007) revealed no Koala records within 2km of the subject site. Other local area surveys completed as part of the preliminary stages of the Coffs Harbour Koala Plan of Management (1999) did not locate any Koalas within the site or immediate area. This data suggests that the site is not likely to be significant habitat to the local Koala population.*

*The site is not mapped as being a significant habitat link for the Koala in the CHPOM. The closest significant habitat link is approximately 10km south of the subject site.*

*Notwithstanding the above finding, as the site has been mapped as having Secondary Koala Habitat, it must be assessed in accordance with the CHPOM.*

Their conclusions in relation to the assessment are as follows:

*It is recommended that, due to the occurrence of mapped Secondary Koala Habitat within the site, the following could be considered as options in any design and environmental management initiatives for the site:*

- *Retention of preferred Koala feed trees*
- *Planting of preferred Koala feed trees as part of landscaping and vegetation management strategies*
- *Education programs instigated for local residents*

- *Measures to mitigate potential road impacts (signage, speed limiting)*

These recommendations are to be implemented in the ongoing design and development of the site. Appendix 11 contains a complete analysis of the Koala Plan of Management in relation to the site, its controls and the compliance of this proposal with the plan.

## 8.4 Conservation Areas and Reserves

### 8.4.1 Identification of conservation areas

**Identify conservation areas within the site, having regard to the areas conservation significance identified in the Sainty Report. [DGRs Key Issue 3.1]**

As discussed above, Conacher Environmental Group has provided a comprehensive response to the Sainty Report in regard to the validity of the findings and recommendations of that report (**Appendix 14**). They consider that *“the implementation of buffer zones throughout the site [as recommended in the Sainty Report] is a significant variance to currently accepted coastal development options”*(pp3) and therefore should not be adopted as they (pp4):

- i) *Have not been determined on the basis of specific site characteristics, including site zoning.*
- ii) *Do not incorporate any scientific assessment or justification in relation to buffer zone width.*
- iii) *Do not incorporate any provision or consideration of ongoing management responsibilities.*
- iv) *Have not undertaken an appropriate assessment in relation to the requirements of the EP&A Act.*
- v) *Have not considered the proposed stormwater drainage and environmental impact mitigation measures.*

The approach of Conacher Environmental Group as outlined in their **Ecological Survey and Assessment Report** is to maintain the sites ecological values through the retention of areas within conservation zones (pp2):

*This includes the more ecologically sensitive lands and environments within Hearnese Lake and its nearshore areas. This also includes riparian areas associated with Hearnese Lake. These conservation areas will also act as a buffer in protecting these sensitive vegetation and habitat types within Hearnese Lake from the impacts of adjacent development. It is proposed that through vegetation and habitat management planning programs, including rehabilitation and restoration, that the ecological values of these conservation areas will be improved.*



The proposed development will retain approximately 15.5 hectares of foreshore/lower slope areas (approximately 31% of the site) as an Environmental Protection Area – Refer to the **Subdivision Layout Plan** at **Appendix 4**.

An additional Buffer area of approximately 8 hectares (approximately 16% of the site) will be retained between the foreshore Environmental Protection Area and the development as vegetated Open Space containing a perimeter emergency access way which will also function as a combined pedestrian / cycleway, open space, buffer, bioswale and stormwater runoff management area.

An additional buffer area between the Environmental Protection Area and the development will also be managed as Bushfire Asset Protection Zones (APZs). The APZs will supplement the areas of retained foreshore vegetation within the Environment Protection Area.

Conacher Environmental Group's assessment of the conservation significance has been discussed above at Section 8.2.1 and is outlined in detail in their report attached at **Appendix 11**. While this differs from the areas defined by the Sainty report, the land identified for conservation areas in the Concept Plan is aimed at retaining substantial areas of habitat, *"including the endangered ecological communities Coastal Saltmarsh and Swamp Sclerophyll Forest on Coastal Floodplains to aid the conservation of the threatened species observed within the subject site. The protection and restoration of these areas will offset those areas to be removed as part of the proposal"* (pp67).

#### **8.4.2 Management**

**Address long term management and maintenance of these areas, including ownership and control, rehabilitation, bushfire and vegetation management. [DGRs Key Issue 3.2]**

The Applicant will be responsible for the design, construction and ongoing maintenance of all landscaping, open space and conservation areas within the development. By adopting a Community Title system, residents will be responsible for the standard of maintenance of the open space and community facilities which provide the amenity and quality of their immediate environment, subject to minimum standards incorporated in the Community Management Statement. Additionally, it will allow for the detailed and individual maintenance of environmentally sensitive land. More importantly, Community Title, with its obligations, opportunities and openness, will encourage interaction, initiative and co-operation between householders for their mutual benefit. This should create a dynamic and organized community in social, economic and environmental terms.

The Applicant is committed to the long term quality of all open spaces and conservation areas. To ensure management of the public domain, the Applicant will establish an Environmental Trust (refer to the discussion at **Appendix 2**) within the community title system to ensure the long term provision of the care, health, viability and sustainability of the areas proposed to be developed as Environmental Protection areas and other types of conservation areas that will be within the site.

The landscape and open space areas is proposed to be maintained based using a routine program with a log kept of all maintenance activities. Key components of the management and maintenance of environmental areas includes:

- establishment and management of the riparian zones between the development edge and conservation areas. Offsets with weed removal and revegetation management strategies are to be implemented for each of these areas. All open space and conservation areas will have edge roads, providing a clear delineation between the built area and open space/conservation areas
- fencing is proposed to minimise edge effects created by the development adjoining the conservation areas, enabling both regeneration and to control access. The fencing regime will allow revegetation of degraded, sensitive and eroded areas. This fencing can be temporary in some areas to allow vegetation to establish.
- control and removal of weeds, using environmentally acceptable methods
- revegetation using plants propagated from locally sourced seed and educational awareness, with arrangements made with local greening groups
- education programs, including presentation, interpretive signage and periodic information issued via brochures and/or website
- Street tree planting in the immediate proximity of the conservation areas to reflect indigenous vegetation of the site - Dead trees in open space areas should be retained where safely possible to create hollows and habitat for bird life, possums, bats and other fauna.

A **Bushfire Protection Assessment Report** has been prepared by Conacher Environmental Group for the site – **Appendix 13**. They recommend asset protection zones be established, and maintained as an Inner Protection Area in accordance with the *Planning For Bushfire Protection Guidelines* (2006).

#### **8.4.3 Impacts on Coffs Coast Regional Park**

**Address impacts on Coffs Coast Regional Park, including details of controlled access routes, fencing, parking facilities, emergency access, and measures for dune and vegetation rehabilitation and management. [DGRs Key Issue 3.3]**

To minimise edge effects created by the development adjoining the Coffs Coast Regional Park fencing is proposed along the boundaries to the sand dune to prevent uncontrolled access and allow for undisturbed regeneration and fauna movement.

Pedestrian access to beach area through the dune area will be via fenced walking tracks utilising elevated timber steps/boardwalks where applicable to minimise erosion. The pedestrian access tracks will be maximum width of 3m, wide enough to provide both safe

public access whilst minimise actual footprint over the dune area. These tracks will also be utilised for emergency access, with direct access to the north-south public road. Car parking is proposed to be restricted to the roads servicing the proposed development with dedicated parking bays adjacent pedestrian access point.

### **Dune and vegetation rehabilitation and management**

Existing flora and fauna resources of the dune will be protected and their function maintained or improved through sensitive planning of the development and attention to Water Sensitive Urban Design. The usage of native vegetation within landscaping strategies will be maximised and natural processes on which ecosystems rely will be preserved.

Bushland rehabilitation programs and specifically the draft Environmental Site Management Strategy has been formulated in accordance with the Conservation Strategy for the dune area (prepared by Conacher Travers). Strict weed eradication programs will be carried out in the dune areas to remove and prevent the re-emergence of weeds and pest plants.

A community awareness program and signage is proposed to be implemented through the Community Title provisions to reinforce residents' responsibilities to respect and manage the area in accordance with agreed policies of the sensitive environmental protection area. This may include proscribed measures of responsible pet ownership (e.g. cats with collars and kept indoors after hours), as well as respecting revegetation areas and the negative consequences of dumping garden waste.

The re-vegetation program proposes using seed sourced from local seed banks. The aim of these programs is to reinstate and conserve the indigenous vegetation and maintain biodiversity.

Access to the Environmental Protection area is to be formalised to certain access points to discourage incursion into regeneration and buffer areas. Fencing is to be established prior to construction to prevent mechanical incursion into these areas. Fencing will also define boundaries for residents.

Regular maintenance of foot paths is required to ensure safety for visitors. Once established the networks of paths should be mapped and walking paths made permanent to encourage use of these tracks, illegally constructed paths should be blocked to protect vegetation communities, as soil compaction, weed invasion and trampling is associated with increased access.

## **8.5 Coastal Zone, access and impacts**

### **8.5.1 Management of the Coastal Zone**

**Demonstrate the management of the coastal zone will be in accordance with the principles of ecologically sustainable development. [DGRs Key Issue 4.1]**

The development site falls within the 'coastal zone' as defined by mapping that accompanies SEPP 71 – Coastal Protection and the Coastal Protection Act 1979.

Hearnes Lake is identified as an ICOLL that is listed as a coastal lake under Schedule 1 of SEPP 71. It has been classified by the Healthy Rivers Commission (HRC) as being at high risk. The HRC's Coastal Lakes Inquiry Report identifies the potential for relatively high levels of nutrients due to agricultural land uses in the Double Crossing Creek Catchment. The HRC subsequently identified Hearnes Lake as being in a Healthy Modified Condition.

The aims and objectives of SEPP 71 have been addressed in Section 7.1.8. This includes a response to the principles of ecologically sustainable development.

### **8.5.2 Public Access and impact of access**

**Protect existing public access to and along the beach and coastal foreshore and provide, where appropriate, new opportunities for controlled public access. [DGRs Key Issue 4.2]**

**Address impacts of access to and any development of the coastal foreshore; and identify measures to mitigate and control those impacts including uncontrolled access and clearing vegetation. [DGRs Key Issue 4.3]**

Currently access to the beach and coastal foreshore from the site is restricted by both fencing and landownership. The Sandy Beach North Development will provide a cohesive network of pedestrian and cycle routes with opportunities for improved access to the beach and coastal foreshore via controlled public access points. It is proposed for three access point to be provided to the beach and coastal foreshore.

As described previously the pedestrian access to beach area through the dune area will be via fenced walking tracks, utilising elevated timber steps/boardwalks where applicable to minimise erosion. The pedestrian access tracks will be maximum width of 3m, wide enough to provide both safe public access whilst minimise actual footprint over the dune area.

The pathways will provide new opportunities for controlled public access to the foreshore to the beaches of Sandy Beach to enable existing residents and visitors to enjoy the amenity it offers.

It should be noted that it is not proposed that direct points of access be provided from the walkways to the foreshore of Hearnes Lake. This has been done purposely to avoid unnecessary human activity within the more sensitive southern end of the lake. Instead, the residential precinct perimeter roads and pathways that are proposed, will serve as delineators separating areas of recreational activity from the shoreline.

The development proposal will also incorporate two dedicated points of access from the subdivision road network to Hearnes Lake Beach. These points of access will be formed as fenced corridors through the back beach dune that will be constructed in accordance with current Beach Protection Authority design practice (refer below). Intrinsically, they will

involve minimal disturbance to established coastal vegetation and will involve the retention of existing beach dune crest elevations.

## **8.6 Water Cycle Management and Impact on Watercourses**

### **8.6.1 Impacts on Hearnese Lake and Waters of Solitary Islands Marine Park**

**Address potential impacts on the water quality of surface and groundwater, and on the ecology, waters and estuarine environments, and particularly Hearnese Lake, and waters of Solitary Islands Marine Park, and demonstrate that there will be no net increase in nutrient and pollutant loads. [DGRs Key Issue 5.1]**

Solitary Islands Marine Park is located adjacent to the proposed development. The marine park incorporates 'estuaries to their tidal limit, foreshores to the mean high water mark and extends offshore to the 3 nautical mile state waters boundary'. Hearnese Lake itself is included within a "Habitat Protection Zone", which makes it an offence to harm any animal (other than fish), plant or habitat within that zone.

A comprehensive water quality management strategy has been prepared for the site by consultants Worley Parsons. Their report is attached at **Appendix 17**. Potential impacts of the proposal on the water quality of surface and groundwater on the local ecology and in particular on the receiving waters is addressed through a number of key measures including the harvesting of rainfall for water re-use and recycling; and the treatment of residual runoff prior to any discharge to Hearnese Lake.

In relation to pollutant loads Worley Parsons Report concludes (pp25):

*Water quality modelling undertaken using the MUSIC software indicates that the proposed combination of bio-retention swales and WQCPs will ensure the following reduction in the mean annual pollutant loads from the developed site:*

- *Total Suspended Solids = = > 72% reduction*
- *Total Phosphorous = = > 53% reduction*
- *Total Nitrogen = = > 40% reduction*

*These reductions are at or near pollutant upper bound reduction criteria recommended for nutrient and suspended solids reductions for urban development (refer EPA 1997).*

*The components of the proposed Water Management Strategy will also result in a net reduction in the total load of nutrients and suspended solids estimated to be currently discharged to the lake from the site (refer Table 12).*

The combined effect of the water quality management strategy is to improve the quality of stormwater runoff, and ensure that runoff is of a quality that will not adversely impact on

the lake hydrology and associated ecosystem, and therefore, the waters of the Solitary Islands Marine Park.

#### **8.6.2 Integrated Water Cycle Management Measures (WSUD)**

**Outline measures for Integrated Water Cycle Management (including stormwater drainage) based upon Water Sensitive Urban Design Principles. [DGRs Key Issue 5.2]**

The water quality management strategy prepared by consultants Worley Parsons incorporates the *"latest techniques in Water Sensitive Urban Design"*.

The strategy is detailed in the attached report at Appendix X. The key elements include:

- Three water quality control ponds (WQCPs); and
- A system of approximately 4 kilometres of bio-retention swales generally located along roadway verges to feed into the WQCPs

The swales are designed to pre-treat the stormwater to remove coarse particulates and other contaminants, and the bio-retentions system removes finer particulates.

The consultants conclude that (pp25):

*...it is considered that the proposed system of bio-retention swales and WQCPs, combined with the harvesting of rainwater from the rooves of dwellings, will suitably treat stormwater from the developed site, and will in fact, improve the quality of runoff currently discharged to Hearn's Lake.*

#### **8.6.3 Impact of Access to Hearn's Lake and other Watercourses**

**Address potential impacts of formal and informal access to Hearn's Lake and other watercourses, wetlands, creeks and estuaries (such as for recreational use, including ramps and jetties), and identify measures to avoid, ameliorate or compensate impacts. [DGRs Key Issue 5.3]**

See discussion above (section 8.5.2) regarding public access and the discussion of the design proposal at **Appendix 2**.

#### **8.6.4 Works within 40 metres of a Watercourse**

**Liaise with the Department of Natural Resources and the Department of Primary Industries/ Fisheries in relocation to any requirements for water use, water management and work within 40m of the top of the bank of rivers and streams, and free passage of fish in waterways. [DGRs Key Issue 5.4]**

No works are proposed within 40 metres of the waterways.

## **8.7 Earthworks and Filling**

### **8.7.1 Impacts of Earthworks**

**Address impacts of earthworks and any site filling, including on existing hydrology and water quality (as listed above), on the conservation of animals, plants and habitat, and the management of acid sulphate soils and any contamination of the site.**

#### **[DGRs Key Issue 6.1]**

As discussed above, some filling of land is proposed to address issues associated with flooding and climate change (refer to the Flood Impact Assessment by Worley Parson at **Appendix 20**).

Worley Parsons conclude that the impact of the fill on the flood hazard are *“negligible and the development will not worsen flood conditions on adjoining properties”* (pp24). Their conclusion relating to the impact of the fill on the Year 2100 flooding (that is, in relation to potential climate change impacts) that *“a maximum increase of less than 20mm is predicted within and outside of the development site”* and that *“the proposed filling is considered to have a negligible impact on flooding during the Year 2100 design 100 year recurrence event...”*. (pp24,25)

The inclusion of the proposed bio-retention systems, water quality control ponds and associated water sensitive urban design features, will suitably treat and polish runoff from the construction and developed site, and ensure that runoff discharged to Hearnies Lake is of a quality that will not adversely impact on the lake hydrology and associated ecosystems.

Those areas associated with the earthworks are located outside of the areas set aside for conservation and environmental protection and therefore it is not anticipated that there will be impacts upon the conservation of animals, plants and habitat.

These water management measures have been designed to ensure that there will be no net increase in nutrient and pollutant loading to Hearnies Lake as a consequence of the proposed development. In fact, the results from the analysis suggest that the proposed measures will reduce existing estimates of the nutrient loading to the lake.

In relation to the question of *“the management of acid sulphate soils and any contamination of the site”*, it is considered that the responses to Key Issues Nos 7.3 and 7.4 have addressed those matters. As indicated, the Coffey Geosciences Pty Ltd has provided advice on those matters. A copy of their Report is at **Appendix 24**. For the purposes of completeness in responding to the matter under this Key Issue, the following is noted (pp3):

*Soils observed in test pits are considered to be suitable for the placement of fill, though again some over excavation, geofabric or additional site preparation may be required in*

*some areas. Soils appeared to be generally suitable for re-use as general site fill, though additional testing of soils may be required to confirm this. Topsoil or root affected material should not be re-used as general fill.*

## **8.8 Hazard Management and Mitigation**

### **8.8.1 Bushfire Hazard**

**Address the requirements of Planning for Bushfire Protection 2001 (RFS), in particular the provision of bushfire asset protection zones (APZ) in accordance with appropriate vegetation classification, locations (outside proposed conservation areas and buffer zones); provision of emergency access and egress; water supply; and measures for fuel management and maintenance. [DGRs Key Issue 7.1]**

The proposed development is within a bushfire prone area. A Bushfire Protection Assessment Report has been prepared by Conacher Travers - refer **Appendix 13**.

This report provides an assessment of the bushfire protection requirements required for the development to guard against the potential impact of bushfires. Recommendations have been made in respect of fuel management, construction standards/building protection, access, bushfire education and land ownership responsibility.

The recommended strategy includes the establishment of appropriate separation distances Asset Protection Zones and building construction standards; management standards for the APZs; ingress and egress routes and emergency services access; and water supply. The report concludes that "with the implementation of the measures recommended...the overall aims and objectives of Planning for Bushfire Protection can be achieved for the proposed development"(pp11).

### **8.8.2 Flooding**

**Address the requirements of relevant flooding data in relation to the subdivision design and layout and minimum site and floor levels. This should include consideration of predicted sea level rise, impact on Hearn's Lake, earthworks and any site filling. [DGRs Key Issue 7.2]**

As discussed above, significant research and analysis has been undertaken in relation to flooding impacts by consultants Worley Parsons. Their Flood Impact Assessment Report is attached at **Appendix 20**. The site is subject to inundation as outlined in the introduction to the Flood Impact Assessment (p1):

*During major storms, there is potential for floodwaters to overtop the banks of Double Crossing Creek and Hearn's Lake, and inundate low lying areas of the development site. The potential for inundation varies as a function of one or a combination of the following:*



- the frequency of the storm that causes flooding of Double Crossing Creek;
- the entrance conditions at the mouth of Hearn's Lake; and,
- the ocean water level at the time of catchment flooding.

As required by Council's Flood Policy (p2-3):

*...residential dwellings can only be constructed on land that has a low or medium flood risk. In addition, all habitable rooms must be constructed with floor levels that are a minimum of 500 mm above the predicted peak 100 year recurrence flood level.*

*Sandy Shores also plans to fill selected areas of the development site that are subject to Low Flood Risk and thereby increase the area of land that is available for dwelling construction. Filling of the site will effectively eliminate the potential for inundation from floodwaters that would currently overtop the banks of Hearn's Lake and Double Crossing Creek. It would therefore reduce the flood risk and allow development in accordance with Council's Flood Policy.*

*However, the proposed filling will also remove a proportion of the flood storage currently afforded by the low lying areas that adjoin the lake. Therefore, the proposed development has the potential to increase peak flood levels and could adversely impact on adjacent properties.*

*Accordingly, Sandy Shores also requested that Patterson Britton & Partners investigate the potential for the proposed filling to adversely impact on flood behaviour and to determine the optimal fill for areas of the site proposed for development.*

*The results of these investigations were documented in an earlier version of this report (Issue No.3, November 2005). The previous report was incorporated into an Environmental Assessment for the development project. It is understood that the EA was prepared to address the requirements of the Director General of the Department of Planning and has taken into account the recommendations outlined in that report.*

*In March 2008, the NSW Department of Planning issued a supplementary Director-General's Requirement. The supplementary DGR is referred to as Item 7.7 and requires that:*

*A risk management assessment of climate change impacts to the year 2100 is to be undertaken using the latest available information from the International Panel on Climate Change (IPCC), the Department of Environment and Climate Change (DECC) and the CSIRO. This should include sensitivity analyses for low level, mid range and high level ocean impacts as set out in the DECC Floodplain Risk Management Guideline titled 'Practical Consideration of Climate Change'.*

*Additional investigations were undertaken to address the supplementary DGR. The results of the investigations are documented in a recent report prepared by Patterson*

*Britton & Partners (now a part of WorleyParsons) titled, 'Climate Change Assessment for Proposed Development at Sandy Beach North' (Issue No.2, August 2008).*

*The key findings from that report are documented in Section 4. They indicate that the peak 100 year recurrence flood level at Hearn's Lake could increase by up to 350mm by the Year 2100 due to climate change impacts.*

*Accordingly, the proposed Sandy Shores development has been modified to incorporate a design layout and fill scenario based on the adoption of a Year 2100 design 100 year recurrence flood level that incorporates the projected increase in peak flood level due to climate change.*

The report concludes (pp27):

*On this basis, it is considered that the adoption of a peak 100 year recurrence flood level of 2.95 mAHD will provide sufficient redundancy over the design life of the project. Accordingly, it is recommended that an elevation of 2.95 mAHD be adopted as the "Year 2100" design 100 year recurrence flood level and that building controls for development be based on this. Accordingly, minimum habitable floor levels should be set at 3.45 mAHD.*

The Concept Plan and residential layout incorporates the recommendations of the report, to ensure that minimum site and floor levels satisfy Council's Flood Policy. This includes the design impacts associated with climate change and the proposed filling.

### **8.8.3 Contamination**

#### **Identify any areas of contamination on site and appropriate mitigation measures. [DGRs Key Issue 7.3]**

Coffey Geosciences Pty Ltd have provided advice on this matter. A copy of their report is at **Appendix 24**. The report sets out the Methodological and Analytical processes followed by the Specialists and the results. At Section 5.3 Potential Contamination, the following advice is provided (pp6):

*Based on a walkover, assessment during field work, the site does not appear to have been developed for any particular use apart from possibly grazing animals. No obvious signs of soil contamination were observed during the walkover assessment or during excavation of test pits/boreholes....*

*Based on there being no signs of contamination or potentially contaminating developments observed at the site, and the current zoning, it is our opinion that there is a low likelihood of significant concentrations of contaminants being present on the site. Areas of potential contamination, if any, would be likely to be isolated and result from minor spills and leaks from vehicles, plant containers, or past agricultural use.*

As the risk of contamination as assessed by Coffey Geosciences is unlikely, no mitigation measures are considered necessary.

#### **8.8.4 Acid Sulphate Soils**

**Identify the presence of and extent of acid sulphate soils on the site and appropriate mitigation measures. [DGRs Key Issue 7.4]**

Coffey Geosciences Pty Ltd have advised on this matter. A copy of their report is at **Appendix 24**. The Report sets out the methodological and analytical processes followed by the specialists and the results.

The report outlines the nature and formation of Acid Sulphate Soils. Under Section 5.1 “general Suitability with Respect to geotechnical Constraints”, the specialist advises that:

*“Based on the results of the preliminary assessment, the site is generally considered to be suitable for residential and non-rural development”.*

Section 5 deals with the testing, analysis and recommendation relating to Acid Sulphate soils. At 5.2.4 it is stated:

*It is recommended that more detailed assessment of acid sulphate soils be carried out when the location and size of excavations is known, which may involve test pitting to further assess the extent of alluvial soils and/or additional sampling and testing on proposed excavation areas. Following assessment of the extent of the acid sulphate conditions, an Acid Sulphate Soils Management Plan should be prepared to guide development of the site.*

In accordance with the recommendations of Coffey Geosciences, an Acid Sulphate Soils Management Plan will be required in the subsequent stages of the development of the site.

A condition is included in draft Statement of Commitments with respect to this issue provided at **Appendix 8**.

#### **8.8.5 Coastal Hazards**

**Address coastal hazards and the provisions of the Coastline Management Manual. [DGRs Key Issue 7.5]**

The Coastline Management Manual was produced to assist local councils develop balanced plans of management for the coastline. The Manual outlines seven hazards that have been identified along the New South Wales Coastline: beach erosion, shoreline recession, coastal entrance instability, vegetation degradation and sand drift, coastal inundation, slope and cliff instability, and stormwater erosion.

An assessment of the coastal hazards was undertaken by Worley Parsons in 2004 and further updated in December 2008 – refer **Appendix 21**.

Their letter of advice states that (*inter alia*):

*The “coastline hazard line” is the predicted position of the back beach erosion scarp after a 100 year ARI coastal storm (including an allowance for subsequent slumping to a stable angle of repose), for a specified planning horizon.*

They conclude:

*In summary, the following points can be made in regard to the 100 year recurrence coastline hazard line for Hearn's Lake Beach:*

- (i) Any reassessment of the coastline hazard line that may be required as a function of interpretation of DGR 7.7, should be based on a long term recession rate of no greater than 0.13 m/yr (and possibly even less). This is in keeping with the latest available data which was published after the August 2004 Report.*
- (ii) It is accepted practice to employ the median level estimate for sea level rise in any climate change assessment for development. IPCC 2007 and DECC 2007 indicate that the median level prediction for sea level rise on the North Coast of NSW to the Year 2100 is 0.55 metres.*
- (iii) Application of a 0.13 m/year long term recession rate and median level IPCC 2007 predictions for sea level rise to determine the 100 year recurrence coastline hazard line for the Year 2100, will result in a 4.5 metre landward extension of the hazard line presented in the figure that accompanied the August 2004 Report. As shown in Figure 1, the development footprint that is currently proposed will not encroach within the hazard area defined by this minor landward relocation of the coastline hazard line.*

In accordance with the above advice, it is considered that the proposal has adequately addressed the coastal hazards, consistent with the Coastline Management Manual.

#### **8.8.6 Climate Change Assessment**

**A risk management assessment of climate change impacts to the year 2100, is to be undertaken using the latest available information from the International Panel on Climate Change (IPCC), Department of Environment and Climate Change (DECC) and the CSIRO. This should include sensitivity analyses or low level, mid range and high level ocean impacts as set out in relevant DECC Guideline (Floodplain Risk Management Guideline: Practical Consideration of Climate Change, 2007). (DGRs Key issue 7.7)**

As indicated above, a thorough examination of climate change implications up to the year 2100 has been undertaken by Worley Parsons in relation to the subject site (refer **Appendix**

**18** – *Climate Change Assessment For Proposed Development At Sandy Beach North – August 2008*). Their work, as required, includes a sensitivity analyses as follows (pp3-4):

*An assessment of the impact of climate change on flood characteristics in the vicinity of the Sandy Beach North Site was undertaken to establish the extent to which fill elevations and minimum floor levels may need to be raised to accommodate the projected impact of climate change to year 2100.*

*This involved additional hydrologic and hydraulic flood modelling to investigate the impact of projected estimates for sea level rise and projected increases in storm rainfall intensity.*

The conclusions of the investigations are outlined in the report as follows (pp7):

*...[C]limate change considerations to the year 2100 could impact on the development site in the following ways:*

- (1) by increasing the peak level of the design 100 year recurrence flood for Hearn's Lake from the current estimate of 2.60 mAHD to an elevation of 2.95 mAHD; and*
- (2) by increasing the extent of the ICOLL based on Year 2100 projection and applications of the methodology proposed by Haines and supported by Sainty, so that it is effectively defined by the area below the 2.55 mAHD contour.*

The recommendations of Worley Parsons, as outlined previously in this report, is to establish an elevation of 2.95 mAHD as the Year 2100 design 100 year recurrence flood level. The Concept Plan adopts building controls for development based on this. The minimum habitable floor levels of all dwellings will be established at 3.45 mAHD.

## **8.9 Traffic Management and Access**

### **8.9.1 Traffic Impacts**

**Prepare a Traffic Impact Study in accordance with the RTA's Guide to Generating Development, which address but is not limited to the following matters:**

- The RTA's Coffs Harbour Pacific Highway Planning Strategy, and upgrade of the highway**
- Access to the site and development, in context of the RTA planned upgrade of the Pacific Highway**
- The capacity of the road network to safely and efficiently cater for the additional vehicular traffic generated**

**(DGRs Key issue 8.1)**

A Traffic Impact Assessment has been prepared by Better Transport Future, Mark Waugh Pty Limited and is attached at **Appendix 15**. The report addresses the key issues as identified in the DGRs.

In relation to the Pacific Highway and future access the report states (pp23):

*An initial assessment has been completed with regard to the proposed future site access to the onramp to the Pacific Highway at the northern edge of the site. The RTA has provided projected traffic volumes for this ramp and intersection, to allow for an assessment of the operation of this access. An initial assessment for this access indicates that a 3-way roundabout controlled intersection could be provided on this ramp that would allow for two-way movements on this ramp between the roundabout and Hearn's Lake Drive to the north. Traffic would remain one-way southbound from this roundabout on the slip to merge with southbound movements on the Pacific Highway.*

*An alternative access arrangement in this location would be to allow for a left in and left out only to and from the site onto the on-ramp to the Pacific Highway. This would still cater for the majority of traffic movements and would have the minimal impact upon the operation of this onramp.*

*A detailed assessment has not been completed on this intersection at this stage, as there are no plans available from the RTA. The RTA has indicated that an access at this location will be acceptable to them, subject to detailed design and traffic modelling. The RTA also indicated that the alterations to the on-ramp layout would need an alteration to the Environmental Impact Statement completed for the Pacific Highway in this location.*

*A detailed assessment of this access point will be completed to RTA requirements during the detailed design of the development. (pp23)*

As outlined, a more detailed assessment will be made of the access arrangements, in liaison with the RTA and incorporating their comments in relation to their upgrade, during the detailed design phases of the development.

In relation to the capacity of the road network to safely and efficiently cater for the additional traffic the report states in summary (pp25-26):

*5. The vehicle access to the site is proposed via two new access points to the south of the site, that will tie-in with the existing local road network. The new access points are via Pine Crescent and Ti-Tree Road. These access points will be the sole access points until the third access is provided to the north to link with the on-ramp for the Pacific Highway upgrade in this location.*

*6. The impact of the additional traffic associated with the full development has been assessed on these local residential roads and it can be seen that even without the third access to the north, the impact of the development upon these local residential roads is*

acceptable. The future total vehicle flows along these roads will remain within acceptable environmental limits for their classifications.

7. The operation of the local intersections has been assessed. It is considered that the intersections along Diamond Head Drive provide adequate capacity to cater for the additional traffic flows and that the two key intersections impacted upon by the development flows will provide an acceptable and safe operation for all road users.

8. The intersection of Graham Drive and Diamond Head Drive has been assessed and it is considered that this intersection will need to be upgraded as part of the development. It is considered that the intersection should be upgraded to an RTA Type AUR to allow for increased right turns into Diamond Head Drive. This upgrade will ensure that there will be minimal delays for northbound traffic movements on Graham Drive. This would be further assessed and conditioned during the development application stage of the process.

9. The RTA has indicated that they would accept a third access to the development site via the on-ramp to the future Pacific Highway upgrade, subject to detailed design and traffic modelling. An initial assessment indicates that an access can be provided at this location. The access at this location will need to be designed and approved by the RTA.

10. The internal road network, together with the new connections to the existing road network will be designed in accordance with the Council road design guide. All road works will need to be approved by Council.

11. Existing pedestrian, cyclist and public transport facilities in the general vicinity of the subject site will be adequate for the proposed development. A network of internal off-road paths will cater for pedestrian and cyclist movements. The internal road system has been designed to cater for future bus routes (to be determined in consultation with the local bus company).

The report concludes that (pp26): *“the existing road system is able to cater for the traffic demands of the proposed residential development subject to the necessary road infrastructure requirements and it is recommended that the development be approved on traffic grounds”*. In relation to the Roads Act, refer to section 7.2.11 of this report.

## **8.10 Noise**

### **8.10.1 Noise Impacts**

**Address potential noise impacts, in particular road traffic noise, for future residents and appropriate mitigation measures. This should include consideration of the impacts of the RTAs planned upgrade of the Pacific Highway. (DGRs Key issue 9.1)**

Consultants SKM initially undertook a noise assessment for the subject site in 2004 which includes modelling of predicted road noise for 2006, and incorporating recommendations for possible noise wall and bund configurations. Following the issue of the DGRs, a supplementary assessment of traffic noise has been prepared, titled *Sandy Beach North Supplementary Noise Assessment September 2008* (refer to **Appendix 16**).

*Sinclair Knight Merz was commissioned to undertake a supplementary impact assessment of road traffic noise on the proposed residential development of Sandy Beach North.*

*The outcome of the assessment is that the proposed development site is moderately affected by road traffic noise from the adjacent Pacific Highway both for existing conditions and following the planned upgrade of the Highway, and noise controls are required to mitigate these impacts.*

#### 5.2. Noise Control Recommendations

*The results of traffic noise modelling show that a noise barrier of 4m in height, located along the road corridor at the top of the road batter, and constructed as a continuation to the proposed RTA noise barriers, are moderately effective in reducing both day-time LAeq(15-hour) and night-time LAeq(9-hour) noise impacts at proposed development sites throughout the development area.*

*Depending upon the building location, and in addition to the modelled noise walls described above, a range of design and built to form noise mitigation methods will also be required at residences adjacent to the Pacific Highway. Assuming these suggested options are employed, compliance with the ECTRN criteria is expected to be achievable.*

As recommended the concept proposal incorporates a sound barrier of 4m. The plan also incorporates appropriate site development guidelines for the siting and location of buildings to enable compliance with the required noise criteria.

## 8.11 Infrastructure Provision

### 8.11.1 Servicing

**In consultation with relevant agencies, address the existing capacity and requirements of the development for sewerage, water, electricity, telecommunications, waste disposal and gas. Identify staging, if any of infrastructure works. (DGRs Key issue 10.1)**

#### **Waste Management**

Waste disposal is undertaken by Coffs Harbour City Council under contract to *Handybin Waste Services*.



Enquiries at the Council and Handybin Waste Services indicate that the major point of concern is accessibility and manoeuvrability of collection vehicles. The specifications of the vehicles (front, rear and side loading) have been reviewed as have the proposed road widths for the respective road typologies as set out in the Council's subdivision guidelines; these have been nominated as being 7-8 m carriageway width for local roads and 5.5-7m carriageway width for minor roads. The design of the roads will be in accordance with the relevant road design guidelines.

### ***Electrical Services***

In relation to the provision of electricity services, Country Energy has provided advice that indicates they have no objection to the proposal and have confirmed that suitable electricity supply can be made available to the site, as development proceeds (refer to their correspondence at **Appendix 28**).

### ***Water and Sewer***

Worley Parsons has investigated the issues regarding the provision of water and waste water provision for the site. In relation to water service, their discussions with Coffs Harbour City Council have indicated that the local supply has sufficient capacity to service the development (**Appendix 29**), however, this will require the installation of 200 metres of feeder main. In relation to sewer, Council advise Worley Parsons that the existing pumping station servicing Sandy Beach will be required to be upgraded to accommodate the sewage load.

In summary, Worley Parsons advise that water and wastewater services infrastructure can either service or be upgraded to service the development.

### ***Telecommunications and Gas***

No reticulated gas is supplied to this area of the Coast. In relation to telecommunications, informal discussions with Telstra indicate that once plans are submitted for their consideration they will make provision for appropriate infrastructure.

The necessary services and utilities including water, electricity, telecommunications and sewerage systems are available to the site, with the proposed development able to be accommodated within existing capacity, as envisaged by the scale of development anticipated on the site.

## ***8.11.2 Staging of Infrastructure Works and Contributions***

**Address the provision of public services and infrastructure having regard to the Council's section 94 Contribution Plan/s, including availability of and adequacy of open space and the need for surf life saving services. (DGRs Key issue 10.2)**

The provision of public services/infrastructure are set out in at least five Contributions Plans, including the Hearn's Lake/Sandy Beach Area Developer Contributions Plan 2005

(the Contributions Plan). In addition, there are a number of other Council Strategy Plans and the Hearn Lake / Sandy Beach Area Development Control Plan (the HL/SB DCP) that are referred to in Part 3 of the Contributions Plan.

It would appear that the HL/SB DCP provides the basis upon which the Contributions Plan has been prepared and the various items for contributions calculated. However, there is serious concern about the validity of the HL/SB DCP (refer to the discussion at **Section 7.1.15**).

Therefore, in light of all of the above matters and due to the legal uncertainty, as well as being seen to be a more efficient way to deal with the matter of contributions generally and the intended outcomes of the proposed development, a Voluntary Planning Agreement may be appropriate in respect to the matters referred to in the Key Issue. This intention is reflected in the draft Statement of Commitments.

As has already been indicated in several of the responses to the General Requirements and the Key Issues, some 49% of the site will ultimately be reserved as part of the "natural environment" which will be managed with an "Environmental Protection" type status, "restricted access" and so forth.

A major outcome will be the enhancement and proper management of those parts of the site that are environmentally fragile. It is further noted that all of the proposed design and management outcomes will be at no cost to the public.

## **8.12 Heritage**

### **8.12.1 Aboriginal Cultural Heritage**

**Identify whether the site has significance in relation to Aboriginal cultural heritage and identify appropriate measures to preserve any significance. (DGRs Key Issue 11.1)**

An Aboriginal heritage assessment was undertaken by Mary Dallas with report issued in December 2004. The study follows an earlier archaeological study undertaken in 1983. The report assessment states that:

*The archaeological survey identified two [2] open camp sites, SBN 1 and 2, and two [2] isolated pebble manuports, ISF 1 and 2]. An area of land judged to retain some, albeit low archaeological potential for buried archaeological deposit [PAD 1] was also identified. At these locations no other cultural features such as hearths or food remains are present. The evidence is indicative of sporadic or short duration use of forested areas away from the coast. There focus is likely to have been on the Lake and its feeder creeks.*

The report states that none of the finds are affected by the current development proposal:

*The area identified as retaining archaeological potential [PAD 1] is located within Lot 22 in area proposed for housing and will require archaeological test excavation, under a DEC s.87 Preliminary Research Permit to determine whether cultural remains are present and the degree of constraint, if any, they may represent to the development proposal. SBN 1 and ISF 2 are located with a proposed Conservation Area [see Figures 2.3 and 5.26]. These finds can be management for preservation within this context.*

*SBN 1 will require additional conservation works. The area should be covered by suitable topsoil and native ground cover. This site and the historic use of the area by Aboriginal community members for corkwood harvesting should be the subjects of interpretive signage along the proposed walkway around Hearn. The precise location of the camp site SBN 1 should not be identified. The discrete location, content and wording of the interpretive signs should be developed in consultation with the CH&DLALC.*

*Lot 21 is not part of the current development proposal. ISF 1 is located within 50m of Double Crossing Creek and protected within the creek reservation from future development. SBN 2 is located along an internal access road within Lot 22. The CH&DLALC have indicated their preference for additional site survey and archaeological monitoring in this area as a prudent strategy to allow the identification and salvage of the items, were this area proposed for future development.*

Appropriate recommendations in terms of both Aboriginal consultation and archaeological management options are incorporated in the report. A condition is included in draft Statement of Commitments with respect to those recommendations at **Appendix 8**.

### **8.12.2 Other Items of Heritage Significance**

#### **Identify any other items of European heritage significance and provide measures for conservation of such items. (DGRs Key Issue 11.2)**

Dan Tuck was retained by the Applicant to report and advise on the European heritage aspects of the site and advise on its significance, if any, as well as the impacts, if any of the proposed development on the Heritage significance of the site. A copy of that Report is at **Appendix 27**. That report needs to be read together with the Report by Conacher Travers, entitled "Historical Land Use Ecological Assessment ", a copy of which is at **Appendix 11**.

No sites or items of European cultural heritage significance or areas of historical archaeological potential were identified within the study area through. Physical traces of modification of the study area relate predominantly to the middle to late 20th century and have low cultural heritage significance and no archaeological value.

Historical data indicates:

The study area has predominantly been utilised for coastal grazing - with sand mining occurring on its eastern margin in the late 1960s/early 1970s, and road construction occurring along the western margin in the 1970s/1980s.

- Grazing (particularly land clearing associated with the maintenance of open grazing areas and promotion of pasture) and mining, have altered the physical landscape.
- Evidence of past use is the modified landscape itself – which is replicated at other locations in nearby areas
- No residential structures (such as houses) are known to have been constructed within the study area.
- Given the history of the site there are unlikely to be any other significant tangible physical traces of past use (relics).
- Historical research indicates that it is unlikely that relics of European cultural heritage significance exist within the study area.
- No items listed within statutory or non-statutory heritage lists, databases or schedules exist within the study area.
- No sites or items of European cultural heritage significance or areas of historical archaeological potential were identified within the study area during the site inspection.

The study area has been assessed as having low cultural heritage significance and low archaeological potential and sensitivity.

### 8.13 Land Ownership

**Ensure that owners consent can be provided for all land included in the development. (DGRs Key Issue 12.1)**

Owners consent in relation to **Lot 22 in DP 1070182** being Pacific Highway, Sandy Beach North, and **Lot 497 DP 227298** being 15 Pine Crescent, Sandy Beach, can be provided in accordance with 8F of the Regulation.

## 9 CONCLUSION

The Concept Plan Application for Sandy Beach North, Hearnese Lake comprises two key elements: the residential subdivision and development of land; and importantly the rehabilitation and retention of half of the site for environmental and open space purposes incorporating substantial buffers to environmentally sensitive areas. The Concept Plan Application is consistent with the intentions of the State and Local Government planning framework for the Mid North Coast and will assist in supporting the economic growth and development of Coffs Harbour. The site is within the area identified in the State Government Mid North Coast Strategy as being appropriate for residential development.

The proposal is consistent with the intentions of Coffs Harbour City Council's Interim Settlement Strategy, and is consistent with the aims and objectives of the **Coffs Harbour Local Environmental Plan 2000**. As this is a Part 3A project compliance with the LEP is not required, nonetheless, the Concept Plan application complies with the aims and objectives of the LEP.

The Concept Plan will enable the development of a site responsive and seamless extension to the residential lands at Sandy Beach and will assist to accommodate the increase in demand for high quality residential housing in this location. The retention of approximately half of the site for environmental protection and open space will result in the existing, degraded environment being restored thereby maintaining and providing an appropriate environmental management framework for the site's ecological values. Substantial buffers are provided between the proposed residential development and Hearnese Lake and to the coastal shoreline.

The potential environmental impacts identified at **Sections 7 and 8** of this EA, are able to be effectively ameliorated by the mitigation measures recommended within the various consultant reports that have informed this EA and are incorporated into the draft statement of commitments. This EA concludes that the proposed Concept Plan is not likely to result in any significant adverse impacts.

It is considered that the Concept Plan contemplates a form of development that will achieve the objects of the EP&A Act. In particular, the proposal represents an *"orderly and economic use and development of land"* and provides the opportunity for *"the protection of the environment, including the protection and conservation of native animals and plants, including threatened species, populations and ecological communities, and their habitats, and ... ecologically sustainable development..."*.

It is therefore recommended that the application is determined by the granting of concept plan approval, and approval under **Section 75P(1)(c)** of the EP&A Act.