



DARRYL ANDERSON CONSULTING PTY LTD
TOWN PLANNING & DEVELOPMENT CONSULTANTS

**ENVIRONMENTAL ASSESSMENT UNDER PART 3A OF THE ENVIRONMENTAL PLANNING
AND ASSESSMENT ACT, 1979 (AS AMENDED)
MAJOR PROJECT APPLICATION NO. 09_0016**

**PROPOSED MIXED USE RESIDENTIAL AND TOURIST ACCOMMODATION
DEVELOPMENT AT LOTS 1 – 3 SEC 1 DP 29748 AND LOT 4 SEC 1 DP 31209
CNR TWEED COAST ROAD AND CYPRESS CRESCENT, CABARITA BEACH
(TWEED LOCAL GOVERNMENT AREA)**

PREPARED FOR:

TWEED COAST HOMES PTY LTD

PREPARED BY:

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MAY 2010

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**DRAFT ENVIRONMENTAL ASSESSMENT UNDER PART 3A
OF THE ENVIRONMENTAL PLANNING & ASSESSMENT ACT, 1979 (AS AMENDED)
APPLICATION NO. 09_00016**

EXECUTIVE SUMMARY

Tweed Coast Homes Pty Ltd has instructed Darryl Anderson Consulting Pty Ltd to prepare this Environmental Assessment Report in respect of a Major Project Application for a project comprising a three storey Mixed Use Residential and Tourist Accommodation Development over basement car parking. The Company (or related Companies) has owned the land since 1962.

The site is located at Cabarita Beach which is approximately 10km south of Tweed Heads within the Tweed Local Government Area.

Tweed Local Environmental Plan 2000 was gazetted on 7 April 2000. Under the provisions of that Plan the subject site is within the 2(e) Residential Tourist zone.

The site is within the existing urban footprint under the Far North Coast Regional Strategy 2006 – 2031.

Bogangar/Cabarita is a coastal village with a population of approximately 3000 persons. The Village contains retail shops, a primary school, a surf club, a hotel/tavern, a sports club, sports fields and a mix of residential and tourist accommodation.

The project site is located on the northern edge of the Village and has frontage to the Tweed Coast Road and Cypress Crescent.

In real property terms, the site is described as Lots 1 – 3 Section 1 DP 29748 and Lot 4 Section 1 DP 31209 having an area of 2803m². The site is presently occupied by a caravan park comprising 25 sites and an amenities block and storage building which was established in the 1960's. To the north of the land is the Cudgen Nature Reserve, to the east of the land are a number of residential dwellings extending to the Cabarita Beach foreshore, to the south of the land is Cypress Crescent and a number of two and three storey residential buildings and to the west of the land is the Tweed Coast Road and various residential developments.

Relative site development constraints include bushfire hazards and the proximity of Cudgen Nature Reserve to the north and the established low density, detached dwelling character of the neighbourhood.

Finalisation of the development proposal reflects the key site opportunities and constraints and is informed by the specialist reports and studies contained in the Annexures, including:

- Detailed Site Survey and Site Analysis Plans
- Visual Impact Assessment
- Flora and Fauna Assessment
- Bushfire Hazard Assessment
- Acid Sulphate Soils Assessment
- Contamination Assessment
- Geotechnical Report
- Cultural Heritage Assessment
- Engineering Assessment

Having regard to these Assessments, this Environmental Assessment concludes that the project is sustainable and compliant with relevant planning controls.

On 6 February 2009, the Department of Planning advised that on 29 January 2009, the Minister for Planning formed the opinion that this proposal is a project to which Part 3A of the Act applies and therefore, approval from the Minister for Planning will be required.

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Subsequently, on 25 May 2009 the Department of Planning issued the Director General's Environmental Assessment Requirements for the project. This Report addresses the Director General's Environmental Assessment Requirements and concludes that the project complies with relevant planning requirements and achieves consistency with ESD principles. It is therefore considered that approval of the application would be in the public interest.

1.0 BACKGROUND

1.1 Director General's Environmental Assessment Requirements

The Director General's Environmental Assessment Requirements are reproduced in Table 1. The table indicates where each of the relevant matters is addressed in this Environmental Assessment.

TABLE 1 – DIRECTOR GENERAL'S ENVIRONMENTAL ASSESSMENT REQUIREMENTS	
REQUIREMENT	SECTION
General Requirements	
The Environmental Assessment (EA) for the Project Application must include:	
1. An executive summary;	Page 6
2. A detailed description of the proposal including: <ul style="list-style-type: none"> any development options; justification for the project taking into consideration any environmental impacts of the project, the suitability of the site and whether the project is in the public interest; outline the staged implementation of the project if applicable; 	Section 2.0
3. A thorough site analysis including constraints mapping and description of the existing environment;	Section 3.0
4. Consideration of any relevant statutory and non-statutory provisions and identification of any non-compliances with such provisions, in particular relevant provisions arising from environmental planning instruments, Regional Strategies (including draft Regional Strategies) and Development Control Plans;	Section 4.0
5. Consideration of the consistency of the project with the objects of the Environmental Planning and Assessment Act 1979;	Section 5.0
6. Consideration of impacts, if any, on matters of National Environmental Significance under the Commonwealth Environment Protection and Biodiversity Conservation Act 1999;	Section 6.0
7. An assessment of the potential impacts of the project and a draft Statement of Commitments, outlining environmental management, mitigation and monitoring measures to be implemented to minimise any potential impacts of the project;	Section 7.0
8. The plans and documents outlined in Attachment 2;	The Annexures
9. A signed statement from the author of the Environmental Assessment certifying that the information contained in the report is neither false nor misleading; and	Annexure 1
10. An assessment of the key issues specified below and a table outlining where in the EA these key issues have been addressed.	Section 8.0
The EA must address the following key issues:	
1. Strategic Planning	
1.1 Justify the proposal with reference to relevant local, regional and State planning strategies. Provide justification for any inconsistencies with these strategies.	Section 8.1
2. Urban Design and Sustainability	
2.1 Demonstrate the suitability of the proposal with the surrounding area in relation to bulk, scale, amenity (including noise) and visual amenity having regard to the <i>Coastal Design Guidelines of NSW (2003)</i> and the <i>NSW Coastal Policy 1997</i> .	Section 8.2.1, Section 8.2.2 and Section 8.2.3

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TABLE 1 – DIRECTOR GENERAL'S ENVIRONMENTAL ASSESSMENT REQUIREMENTS	
REQUIREMENT	SECTION
2.2 Provide a Design Statement and Access Review prepared by a Registered Architect that outlines the development context, design objectives, uses proposed, GFAs, FSR, layout, scale, materials and finishes schedule, paths of travel, emergency egress and accessibility.	Section 8.2.4 and Annexure 8
2.3 Demonstrate compliance with SEPP 65 and BASIX.	Section 8.2.5, Annexure 8 and Annexure 9
2.4 Provide a Building Management Plan and providing details in relation to occupancy, management systems, use of amenities and facilities and body corporate roles and responsibilities etc..	Section 8.2.6 and Annexure 22
3. Visual Impact	
3.1 Address the visual impact of the proposal in the context of surrounding development and relevant mitigation measures. In particular address impacts on the amenity of the foreshore, overshadowing of public places and cumulative impacts.	Section 8.3 and Annexure 10
3.2 Use visual aids such as photomontages to demonstrate visual impacts. Amelioration of visual impacts through design, use of appropriate colours and building materials, landscaping and buffer areas must be addressed.	Section 8.3 and Annexure 10
4. Infrastructure Provision	
4.1 Address existing capacity and requirements of the development for sewerage, water, stormwater, electricity, waste disposal, telecommunications and gas in consultation with relevant agencies. Identify and describe staging, if any, of infrastructure works.	Section 8.4 and Annexure 18
4.2 Address and provide the likely scope of any planning agreements and/or development contributions with Council/ Government agencies (including relevant community/state infrastructure contributions).	Section 8.4.1
5. Traffic and Access	
5.1 Prepare a traffic impact study in accordance with Table 2.1 of the RTA's <i>Guide to Traffic Generating Developments</i> .	Section 8.5 and Annexure 18
5.2 Protect existing public access to and along the beach and coastal foreshore and provide, where appropriate, new opportunities for controlled public access. Consider access for the disabled, where appropriate.	Section 4.1.1
6. Hazard Management and Mitigation	
<i>Coastal Processes</i>	
6.1 Address coastal hazards and the provisions of the <i>Coastline Management Manual</i> . In particular, consider impacts associated with wave and wind action, coastal erosion, sea level rise and more frequent and intense storms.	Section 8.6.1
<i>Contamination</i>	
6.2 Identify any contamination on site and appropriate mitigation measures in accordance with the provisions of SEPP 55- Remediation of Land.	Section 8.6.2
<i>Acid Sulphate Soils</i>	
6.4 Identify the presence and extent of acid sulphate soils on the site and, where relevant, appropriate mitigation measures. Prepare an Acid Sulphate Management Plan (prepared in accordance with ASSMAC Guidelines) and a Dewatering Management Plan if required.	Section 8.6.3
<i>Bushfire</i>	
6.5 Address the requirements of Planning for <i>Bush Fire Protection 2006</i> (RFS).	Section 8.6.4
6.6 Provide details on any formal agreement to manage the existing cleared areas as Asset Protection Zones within the Cudgen Nature Reserves.	Section 8.6.4
<i>Geotechnical</i>	
6.7 Provide an assessment of any geotechnical limitations that may occur on the site and if necessary, appropriate design considerations that address these limitations.	Section 8.6.5

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TABLE 1 – DIRECTOR GENERAL'S ENVIRONMENTAL ASSESSMENT REQUIREMENTS	
REQUIREMENT	SECTION
<i>Flooding</i>	
6.8 Provide an assessment of any flood risk on site (for the full range of floods including events greater than the design flood, up to probable maximum flood; and from coastal inundation, catchment based flooding or a combination of the two) and having consideration of any relevant provisions of the <i>NSW Floodplain Development Manual 2005</i> . The assessment should determine: the flood hazard in the area; address the impact of flooding on the proposed development, address the impact of the development (including filling) on flood behaviour of the site and adjacent lands; and address adequate egress and safety in a flood event.	Section 8.6.6
6.9 Assess the potential impacts of sea level rise and an increase in rainfall intensity on the flood regime of the site and adjacent lands with consideration of <i>Practical Consideration of Climate Change - Floodplain Risk Management Guideline</i> (DECC, October 2007).	Section 8.6.1
7. Water Cycle Management	
7.1 Address and outline measures for Integrated Water Cycle Management (including stormwater) based on Water Sensitive Urban Design principles which addresses impacts on the surrounding environment, drainage and water quality controls for the catchment, and erosion and sedimentation controls at construction and operational stages.	Section 8.7
7.2 Prepare a conceptual design layout plan for the preferred stormwater treatment train showing location, size and key functional elements of each part of the system.	Section 8.8
7.3 Assess the impacts of the proposal on surface water hydrology and quality during both construction and occupation of the site.	Section 8.7
7.4 Consider the nature and profile of the groundwater regime under the site, including any hydrologic impacts which would affect its depth or water quality, result in increased groundwater discharge, impact on the stability of potential acid sulphate soils in the vicinity, or affect groundwater dependent native vegetation.	Section 8.7
8. Heritage and Archaeology	
8.1 Identify whether the site has significance to Aboriginal cultural heritage and identify appropriate measures to preserve any significance. The assessment must address the information and consultation requirements of the draft <i>Guidelines for Aboriginal Cultural Heritage Assessment and Community Consultation</i> (DEC 2005) and <i>Interim Community Consultation Requirements for Applicants</i> (DEC 2004)	Section 8.8
8.2 Identify any items of non-indigenous heritage significance and, where relevant, provide measures for the conservation of such items.	Section 8.8
9. Flora and Fauna	
9.1 Assess the potential direct and indirect impacts of the development on flora and fauna taking into consideration impacts on any threatened species, populations, endangered ecological communities and/or critical habitat and any relevant recovery plan in accordance with DECC's <i>Guidelines for Threatened Species Assessment</i> (2005). Describe the actions that will be taken to avoid or mitigate impacts or compensate unavoidable impacts on these species, where relevant.	Section 8.9
9.2 Assess the effect a net increase in the future resident population may have on the Cudgen Nature Reserve through likely increases in visitation and recreational use.	Section 8.9
10. Noise	
10.1 Address potential noise impacts, in particular road traffic noise, for future residents and appropriate mitigation measures.	Section 8.10
11. Socio-economic Impacts	
11.1 Provide a social impact assessment for the development. Address the social and economic context of the development (for both the tourist and residential components) in terms of infrastructure requirements, public transport, community services and facilities (including schools and medical services) and the impact on the low cost tourist market available in the immediate locality.	Section 8.11

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TABLE 1 – DIRECTOR GENERAL'S ENVIRONMENTAL ASSESSMENT REQUIREMENTS	
REQUIREMENT	SECTION
11.2 Address the likely impacts on the long-term residents of the caravan park, options available for these residents and measures to be undertaken to ensure ongoing compliance with the <i>Local Government Act 1993</i> and <i>Residential Parks Act 1998</i> in preparation for closure of the park.	Section 8.11
Consultation	
You should undertake an appropriate and justified level of consultation with the following agencies during the preparation of the environmental assessment:	
(a) <i>Agencies or other authorities</i> <ul style="list-style-type: none"> ♦ Tweed Shire Council; ♦ Department of Environment and Climate Change; ♦ Department of Primary Industries; ♦ NSW Rural Fire Service; ♦ Department of Water and Energy; ♦ Roads and Traffic Authority; ♦ Department of Lands; ♦ State Emergency Service; ♦ Office of Fair Trading; and, ♦ Local Aboriginal Land Council/s and other Aboriginal community groups; and 	Section 9.1
(b) <i>Public</i> <p>Document all community consultation undertaken to date or discuss the proposed strategy for undertaking community consultation. This should include any contingencies for addressing any issues arising from the community consultation and an effective communications strategy.</p>	Section 9.2
The consultation process and the issues raised should be described in the Environmental Assessment.	
The following plans, architectural drawings and diagrams of your proposal as well as the relevant documents will be required to be submitted for your application:	
1. The existing site survey plan is to be drawn to 1:500 scale (or other appropriate scale) and show: <ul style="list-style-type: none"> ♦ the location of the land, the measurements of the boundaries of the land, the size of the land and north point; ♦ the existing levels of the land in relation to buildings and roads; ♦ location and height of existing structures on the site; and ♦ location and height of adjacent buildings and private open space. 	Annexure 3
2. An aerial photograph of the subject site with the site boundary superimposed.	Annexure 4
3. A Site Analysis Plan must be provided which identifies existing natural elements of the site (including all hazards and constraints), existing vegetation, property dimensions, footpath crossing levels and alignments, existing pedestrian and vehicular access points and other facilities, slope and topography, natural features such as watercourses, rock outcrops, utility services, boundaries, orientation, view corridors and all structures on neighbouring properties where relevant to the application (including windows, driveways etc.).	Annexure 6
4. A locality/context plan drawn to 1:500 scale (or other appropriate scale) should be submitted indicating: <ul style="list-style-type: none"> ♦ significant local features such as parks, community facilities and open space, water courses and heritage items; ♦ the location and uses of existing buildings, shopping and employment areas; ♦ traffic and road patterns, pedestrian routes and public transport nodes; and 	Annexure 5

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TABLE 1 – DIRECTOR GENERAL'S ENVIRONMENTAL ASSESSMENT REQUIREMENTS	
REQUIREMENT	SECTION
<ul style="list-style-type: none"> ♦ The existing site plan and locality plan should be supported by a written explanation of the local and site constraints and opportunities revealed through the above documentation. 	
5. A zoning plan must be provided which shows the existing zoning overlaid with the proposed development layout. An extract of the land use table or relevant clauses from the subject LEP is required.	Annexure 2
6. Architectural drawings are to be drawn to scale and illustrate the following general features: <ul style="list-style-type: none"> ♦ the location, of any existing building envelopes or structures on the land; ♦ the floor plans; ♦ the location of lifts, stairs and corridors; ♦ adaptable housing requirements; ♦ section plans; ♦ fenestrations, balconies and other features; ♦ communal facilities and servicing points; ♦ the height of the proposed development in relation to the land; ♦ significant level changes; ♦ parking and vehicular access arrangements; and ♦ pedestrian access to, through and within the site. 	Annexure 7
7. Elevations – of the proposed buildings drawn to the same scale the architectural drawings. The elevations are to indicate height and key datum lines, building length and articulation, the composition of the façade and roof design, existing buildings on the site, building entries (pedestrian, vehicular and service), and profile of buildings on adjacent properties.	Annexure 7
8. Materials and Finishes Board – that illustrates the proposed colours, materials and finishes of the building.	Annexure 8
9. Stormwater Management Plan - illustrating the concept for stormwater management from the site and must include details of any major overland flow paths through the site and any discharge points to the street drainage system. Where an on-site detention system is required, the type and location must be shown and must be integrated with the proposed landscape design. Site discharge calculations should be provided;	Annexure 20
10. Erosion and Sediment Control Plan - plan or drawing that shows the nature and location of all erosion and sedimentation control measures to be utilised on the site;	Annexure 19
11. Landscape Concept Plan – a detailed plan showing planting design and plant/tree species to be used, listing botanical and common names, mature height and spread, number of plants to be utilised in relation to the treatment of communal/public open space areas, footpaths, driveways and the public domain including details of street trees, furniture, signage, lighting and surface treatments (ie. pavers).	Annexure 10
12. Construction Management Plan - a plan which outlines traffic and pedestrian management during construction and management of impacts on amenity of adjoining properties and appropriate mitigation measures including noise, dust and sediment and erosion controls.	Annexure 21
13. Waste Management Plan - a plan that details bulk as opposed to individual storage and addresses waste generated during demolition, construction and site occupation.	Annexure 21
14. View Analysis – artist's impression, photomontages, etc. of the proposed development in the context of the surrounding development.	Annexure 10
15. Shadow Diagrams – diagrams showing solar access to the site and adjacent properties, including the public reserve, at summer solstice (Dec 21, winter solstice (Jun 21 and the equinox (Mar 21 and Sept 21) at 9am, 12 midday, 3pm and 6:30pm.	Annexure 7

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TABLE 1 – DIRECTOR GENERAL'S ENVIRONMENTAL ASSESSMENT REQUIREMENTS	
REQUIREMENT	SECTION
Specialist Advice	
Specialist advice, where required to support your Environmental Assessment, must be prepared by suitably qualified and practising consultants in relation to issues including, but not limited to, the following: <ul style="list-style-type: none"> ♦ Planning; ♦ Flora and Fauna; ♦ Bushfire; ♦ Landscaping; ♦ Geotechnical and/or hydrogeological (groundwater); ♦ Stormwater/drainage; ♦ Contamination; and ♦ Acid Sulphate Soils. 	Annexure 15 Annexure 12 Annexure 10 Annexure 16 Annexure 20 Annexure 13 Annexure 17

1.2 Statement of Validity of this Environmental Assessment

This Environmental Assessment has been compiled by the following project team:

TABLE 2 – PROJECT TEAM	
B & P Surveys	Survey
Pat Twohill Designs Pty Ltd	Architectural
Imagine Innovative Design Group Pty Ltd	Landscape and Visual
Everick Heritage Consultants Pty Ltd	Cultural Heritage
BCA Check Pty Ltd	Bushfire
Border Tech Pty Ltd	Geotechnical and Acid Sulphate Soils
HMC Environmental Consulting Pty Ltd	Contamination
James Warren and Associates Pty Ltd	Flora and Fauna
Cozens Regan Williams Prove Pty Ltd	Engineering
Darryl Anderson Consulting Pty Ltd	Preparation of the Environmental Assessment Report

The Statement of Validity of the Environmental Assessment signed by Darryl Anderson of Darryl Anderson Consulting Pty Ltd is contained at **Annexure 1**. Darryl Anderson certifies that the information contained in this Environmental Assessment is neither false nor misleading to the best of his knowledge.

2.0 DESCRIPTION OF THE PROPOSAL

2.1 Property Description

The land to which this Major Project Application relates is described as Lots 1 – 3 Section 1 DP 29748 and Lot 4 Section 1 DP 31209, Cabarita Beach having an area of 2803m².

The site is located on the northern edge of the village of Cabarita Beach and comprises land within the 2(e) Residential Tourist Zone. Details of the site and the site context are provided in **Annexures 2 – 6**.

The location of the site and its relationship with surrounding land uses is shown in **Figure 1**.

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Figure 1 – Site Location
Source: TSC Aerial Photography dated October 2009

2.2 Development Options

Various development options were considered for this site including the renovation of the existing caravan park use, construction of detached dwellings on the existing freehold lots within the site, a residential flat building development and a three storey tourist accommodation development.

Following consideration of all options in association with the planning and physical constraints and characteristics of the site, as well as an economic feasibility analysis it was concluded that a mixed use residential and tourist accommodation development would be the highest and best use of the site.

A description of the proposed mixed use development is provided in the following subsection.

2.3 The Development Proposal

This application proposes the demolition of all structures on the site and the erection of a three storey, mixed use residential and tourist accommodation development comprising a total of 24 units with basement car parking for 54 vehicles.

Details of the proposed development are provided in **Table 3** and in the paragraphs below.

TABLE 3 – DEVELOPMENT SUMMARY			
LEVEL	DESCRIPTION	BEDROOMS	GROSS FLOOR AREA m ²
Basement	54 Car Parking Spaces	-	-
Level 1 (Ground)	Common Open Space Common/ Foyer Unit 1 – Residential Unit 2 – Residential Unit 3 – Residential Unit 4 – Residential	- - 2 3 3 3	1408.19

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TABLE 3 – DEVELOPMENT SUMMARY			
LEVEL	DESCRIPTION	BEDROOMS	GROSS FLOOR AREA m²
	Unit 5 – Residential Unit 6 – Residential/ Tourist Accommodation Unit 7 – Residential/ Tourist Accommodation Unit 8 – Residential/ Tourist Accommodation	3 3 3 3	
Level 2	Common/ Foyer Unit 9 – Residential Unit 10 – Residential Unit 11 – Residential Unit 12 – Residential Unit 13 – Residential Unit 14 – Residential/ Tourist Accommodation Unit 15 – Residential/ Tourist Accommodation Unit 16 – Residential/ Tourist Accommodation	- 2 3 3 3 3 3 3 3	1039.76
Level 3	Common/ Foyer Unit 17 – Residential Unit 18 – Residential Unit 19 – Residential Unit 20 – Residential Unit 21 – Residential Unit 22 – Residential Unit 23 – Residential Unit 24 – Residential	- 2 3 3 3 3 3 3	1038.14
SUMMARY	24 Apartments 54 Car Parking Spaces	69 Bedrooms	Total 3486.09m²
Site Area Floor Space Ratio	2803m² 1.24:1		

Source: Pat Twohill Architects Pty Ltd, April 2010

The building comprises an attractive contemporary design that provides appropriate vertical and horizontal articulation through the use of deep shaded balconies, the use of screening to create variation in the building façade, extensive landscaping including a “green roof” and appropriate fenestration detail. The building design provides eight units per level over three levels.

The units within the site have been orientated in relation to the opportunities and constraints presented by the site. In this respect, the residential units have been orientated to the northern side to optimise the energy efficiency of these units which will be occupied year round and to offer increased privacy and residential amenity. The tourist units have been located on the eastern and southern side to optimise views to the beach and provide separation for the potential bushfire hazard to the north of the site.

Vehicular access is provided from Cypress Crescent at the eastern end of the site. A total of 54 on site car parking spaces are provided within the basement level of the building. Direct internal pedestrian access is provided from the basement to all levels of the building via the centrally located lift and staircase.

At ground level the proposed development provides a clearly identifiable pedestrian access from Cypress Crescent to the central atrium area which provides access to the ground floor units, communal open space area and the lift core.

The generous setbacks to the building and landscaped areas provide 40% of the site area as pervious surfaces. These areas are in addition to the private open space terraces provided within each unit and also exclude 724.5m² of “green roof”.

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The design of the proposed landscaping within these areas utilises the available deep planting areas along the site boundaries as well as podium planting and roof planting, to provide appropriate screening of the areas of open space and soften the built form of the development as viewed from the street and adjoining properties.

The floor plan of each unit provides functional open plan kitchen and living areas, which integrate with useable private open space areas in the form of terraces. The building has been designed to maximise the number of units with northern and eastern orientation to the private open space decks and living areas. Units at the upper level also have exclusive access to private rooftop terraces.

Full details of the proposal and in particular the proposed Application Plans (**Annexure 7**) are contained within this Environmental Assessment Report and the Annexures.

2.4 Justification of the Project

The proposed development has been the subject of detailed investigations and consultation with State Agencies and Tweed Shire Council. The proposal has been designed to comply with the objectives of the Tweed Local Environmental Plan and the various applicable Sections of the Tweed Development Control Plan 2008, including Section B19 – Cabarita/Bogangar.

The proposal will replace the original development of the site being a caravan park which has operated on the site in generally the same manner since 1962. Rising costs associated with the existing caravan park are continuing to make operation of the park marginal in its present form. The limited size of the site prevents any significant upgrade of the caravan park as economies of scale required are not available to justify the required capital investment.

The proposed development is considered to represent an appropriate redevelopment of this coastal site which will provide a significant improvement in the presentation of the site, which is located at the northern entrance to the village. In addition the proposal will continue to provide tourist accommodation on the site and will increase the activity on the site by including permanent residential uses, which will increase the potential economic flow on effects to other businesses in the area.

2.5 Development Staging

The development is to be undertaken in a single construction program. The development is not proposed as a staged development.

3.0 SITE ANALYSIS

Figure 2 indicates the regional context of the proposed site in relation to the NSW coast, the town of Tweed Heads and the town of Murwillumbah. In summary, the village of Cabarita Beach is located approximately 15km south of Tweed Heads and adjacent to the Pacific Ocean with Cudgen Lake located immediately to the north of the village.

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Figure 2 – Regional Context
 Source: Far North Coast Regional Strategy 2006 – 2031, Department of Planning 2006

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Insofar as the local context is concerned, **Figure 3** shows the spatial relationship between the site and the village. In summary, the site is located on the northern edge of the village and to the east of the Tweed Coast Road, which is the main northern entry to the village.

Details of the site features and the site context are provided in **Annexures 2 – 6** showing the relationship between the site and the key elements of the village. The town centre is located approximately 400m south of the site.

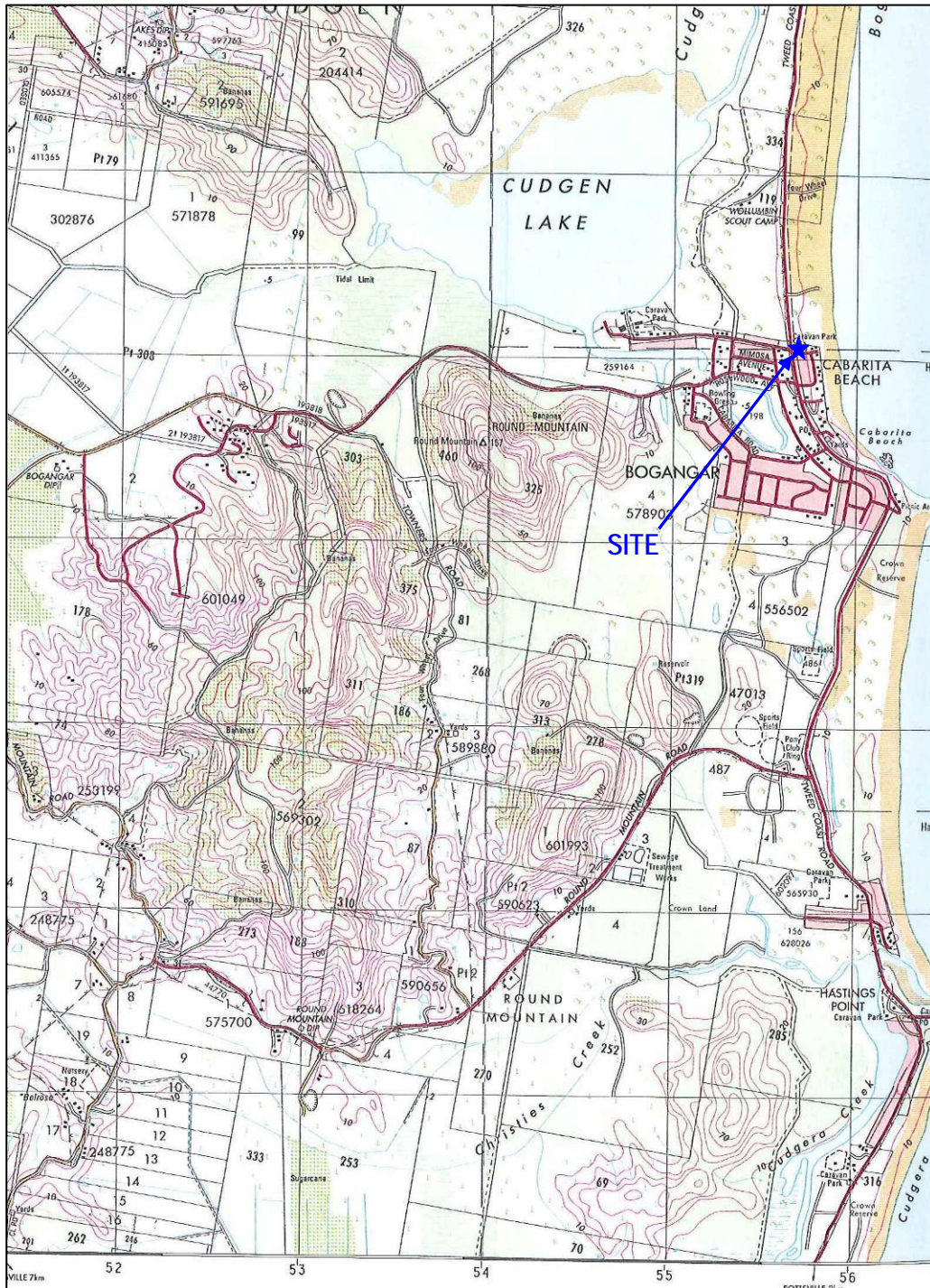


Figure 3 – Local Context Map
Source: Central Mapping Authority 1986

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The existing environment is described on the Site Analysis Plan at **Annexure 6**. In summary, site levels range in height from RL 8.23m AHD adjacent to the western boundary to the Tweed Coast Road down to RL 5.96m AHD at the eastern end of the site adjacent to the Cypress Crescent frontage.

The vegetation on the site comprises managed lawns and a few scattered trees. A Flora and Fauna Assessment was undertaken by James Warren and Associates Pty Ltd. The vegetation mapping within that report identifies two vegetation communities to the north of the site, within the Cudgen Nature Reserve. These communities, located to the north of the site are “Grassland with Scattered Trees” and “Mid-high open woodland (Banksia integrifolia and Leptospermum laevigatum +/- Mixed species)”, as shown on **Figure 4**.

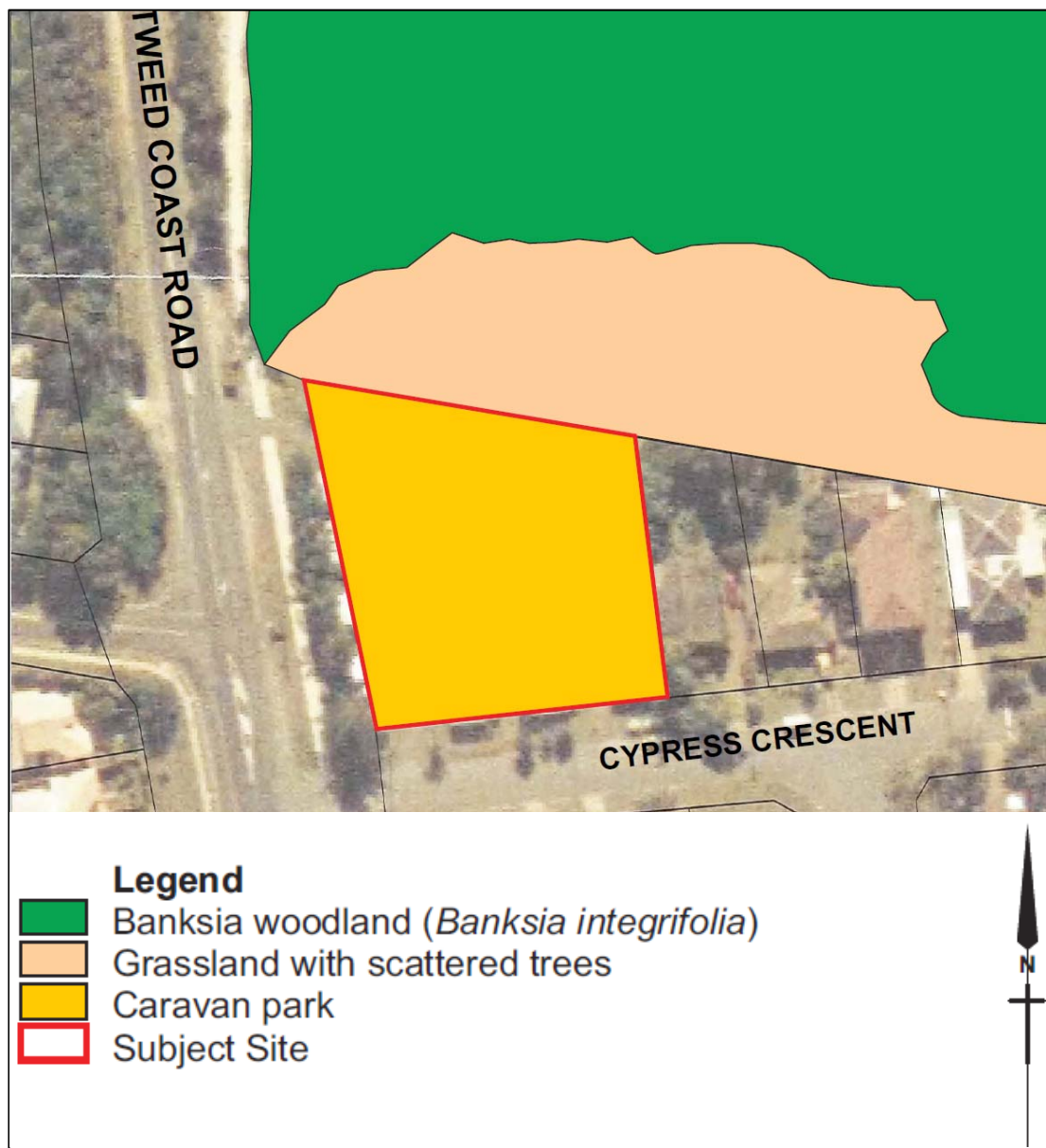


Figure 4 – Vegetation Communities
Source: James Warren and Associates, March 2010

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Climate

Predominant wind direction in the summer is from the northeast and in the winter is from the southwest.

Rainfall

Annual average rainfall for this area is 1722 mm. The monthly minimum of 60mm occurs in September and the monthly maximum of 270mm occurs in March.

Temperature

The November summer maximum is 30°C and the summer minimum is 15°C. In winter, the maximum in August is 23°C and the minimum in July is 5°C.

Geology and Soils

The Geological Survey of Queensland New South Wales, Moreton Geology Map, 1:500,000 Series indicates that the site is located on a Pleistocene Parabolic dune system. Soils in the area comprise largely quartz sands.

Transport

The Tweed Coast Road is a distributor road which provides normal bus services along the Tweed Coast to and from Tweed Heads and other centres. Cypress Crescent is an urban street constructed to a sealed standard with kerb and gutter provided on both sides. Cypress Crescent connects with Tweed Coast Road and provides linkages to the wider road network. The Tweed Coast cycleway which provides an almost continuous path between Tweed Heads and Pottsville is located adjacent to the Tweed Coast Road. Pedestrian linkages to the town centre are also provided along the Tweed Coast Road.

Services

All normal infrastructure is available to the proposed development including reticulated water, reticulated sewer, power and telephone services. There are no significant capacity constraints insofar as infrastructure is concerned.

Vegetation

Vegetation within the site comprises managed lawns with scattered trees and has low conservation value.

Character

The locality generally is characterised by single, detached dwelling houses in one and two storey configurations on adjoining land to the east and south. Multi dwelling housing is provided in townhouses on land to the west of Tweed Coast Road and three storey multi dwelling housing and tourist accommodation development is provide in the town centre to the south. **Annexure 6** comprises a Site Analysis Plan showing the existing topographic features of the site and adjacent land uses.

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4.0 STATUTORY PLANNING CONTEXT

4.1 State Environmental Planning Policies

4.1.1 State Environmental Planning Policy No. 71 – Coastal Protection

The land to which this Major Project Application relates is within the coastal zone as defined under the provisions of this Policy.

Clause 8 of the Policy requires various criteria to be considered in assessing any Development Application. The relevant matters for consideration in Clause 8 are addressed in Table 4 below.

MATTERS FOR CONSIDERATION	COMMENT
a) The aims of this Policy set out in Clause 2.	The proposal is consistent with the aims of this Policy particularly as it involves a minor urban infill development on a site which is zoned to specifically facilitate the type of development proposed.
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.	The site does not have frontage to the coastal foreshore and the project does not affect public access to the foreshore
c) Opportunities to provide new public access to and along the coastal foreshore for pedestrians or persons with a disability.	See above.
d) The suitability of development and its type, location and design and its relationship with the surrounding area.	The development is consistent with the zone objectives and is compatible with the existing and desired future character of the site as expressed by the Residential Tourist zoning of the land and the designation “residential tourist” under the TDCP Section B19 Locality Plan.
e) Any detrimental impact that the 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 site is not located adjacent to the coastal foreshore.
f) The scenic qualities of the NSW coast, and means to protect and improve these qualities.	As above.
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 Flora and Fauna Assessment at Annexure 15 identifies appropriate means to manage and mitigate impacts on threatened species.
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	As above.
i) Existing wildlife corridors and the impact of development on these corridors.	No significant impact is likely (see Annexure 15).
j) The likely impact of coastal processes and coastal hazards on development and any likely impacts of development on coastal processes and coastal hazards.	The site is not subject to coastal processes or coastal hazards.
k) Measures to reduce the potential for conflict between land based and water based coastal activities	No impacts are likely as the site does not adjoin a recreational waterway.
l) Measures to protect the cultural places, values, customs, beliefs and traditional knowledge of aboriginals.	No items of Aboriginal cultural heritage significance have been identified in the Cultural Heritage Assessment at Annexure 11 .

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TABLE 4 – STATE ENVIRONMENTAL PLANNING POLICY NO. 71 – CLAUSE 8 CONSIDERATIONS	
MATTERS FOR CONSIDERATION	COMMENT
m) Likely impacts of development on the water quality of coastal water bodies.	Subject to the implementation of water quality management measures as proposed no significant adverse impact on water quality is likely.
n) The conservation and preservation of items of heritage, archaeological or historic significance.	No items of European heritage or archaeological significance have been identified on the site.
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.	Not applicable.
p) Only in cases in which development application in relation to proposed development is determined;	
i) The cumulative impacts on the proposed development on the environment;	No other known developments are occurring in this locality which would result in cumulative impacts.
ii) Measures to ensure that water and energy usage by the proposed development is efficient.	Normal water and energy saving devices will be installed in all future dwellings in accordance with BASIX requirements.

4.1.2 State Environmental Planning Policy (Major Development) 2005

On 29 January 2009 the Minister advised that the proposal is a project to which Part 3A applies.

4.1.3 State Environmental Planning Policy No. 44 – Koala Habitat Protection

The subject site has an area of less than 1 hectare and therefore the development control provisions of State Environmental Planning Policy No. 44 do not apply to the proposal. The site is highly urbanised and does not contain core Koala habitat. On this basis there is no requirement for the preparation of a Plan of Management.

4.1.4 State Environmental Planning Policy No. 55 – Remediation of Land

In summary, Clause 7 of this Policy provides that the consent authority must not consent to the carrying out of any development on land unless it has considered, among other things, whether the land is contaminated, based on a preliminary investigation of the land carried out in accordance with the Contaminated Land Planning Guidelines.

A Preliminary Contaminated Land Assessment has been completed (**Annexure 13**). The Assessment has been conducted as a Stage 1 Investigation in accordance with the following guidelines:

- NSW Environment Protection Authority (2000) - Guidelines for Consultants reporting on Contaminated Sites
- National Environment Protection Council - National Environment Protection (Assessment of Site Contamination) Measure 1999
- NSW Department of Planning - State Environmental Planning Policy No.55
- Tweed Shire Council - Contaminated Land Policy

The scope of work associated with the Preliminary Contaminated Land Assessment involved the following:

- Identification of all past and present potentially contaminating activities;
- Identification of potential contaminants;
- Discussion of the site condition;
- Provision of a preliminary assessment of site contamination; and
- Assessment of the need for further investigation.

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A site walkover was undertaken by an Environmental Scientist on 13 August 2009 and 1 September 2009. This inspection found that there were no visible signs of contamination such as discolouration or staining of soil, odours or presence of drums and waste material. In addition no timber framed structures on concrete slabs were visible on the subject site negating the need for under slab testing for residual termiticides such as arsenic, DDT and dieldrin.

During the course of the assessment no evidence was uncovered to suggest that potential contaminants had been applied to the subject site or that contaminating activities have occurred within its boundaries. The evidence obtained during the investigation allowed the following observations to be made.

- The land comprising the proposed development has been developed and operated by the current owner as a caravan park since 1962.
- Prior to that, historical photos show that the land was undeveloped with native vegetation since approximately 1942.
- Intermittent use of herbicides has taken place across the site for weed eradication and groundsel eradication.
- No cropping or cultivation has taken place on the subject land.
- No sand mining has been carried out on the subject land.
- No pesticides were used beneath the concrete slabs for termite or pest protection.
- The existing storage shed and amenity block are likely to be constructed of asbestos containing materials and demolition is required to be carried out in compliance with NSW Workcover requirements.
- Due to the age of the building, the existing storage shed and amenity block may also contain lead painted materials and demolition is required to be carried out in compliance with NSW Workcover recommendations.

As the site history is complete and demonstrates that the existing and previous uses of the site are unlikely to have resulted in soil contamination it was concluded that the proposed residential and tourist development is unlikely to be significantly impacted by soil contamination and that the site is presently suitable for the proposed use.

Consequently, no further action is recommended and from a contaminated land perspective, the site can be considered suitable for the proposed use.

4.1.5 State Environmental Planning Policy (Infrastructure) 2007

Clause 104 of this Policy provides that certain developments specified in Column 1 of the Table to Schedule 3 of the Policy requires referral to the Roads and Traffic Authority and the consent authority must take into account any submission that the Roads and Traffic Authority may provide within a prescribed timeframe. Schedule 3 includes subdivisions of land involving 200 or more allotments and apartment or residential flat buildings involving 300 or more dwellings, among other things.

Therefore, as this proposal only involves 24 units, referral to the Roads and Traffic Authority for comment is not required under this Policy.

Details of the proposed impacts of the proposal on the surrounding road network are provided within the Civil Engineering Report attached as **Annexure 18**.

4.1.6 State Environmental Planning Policy No. 14 – Coastal Wetlands

The land to which this Major Project Application relates is not affected by the provisions of this State Environmental Planning Policy. The nearest mapped wetlands under the provisions of this Policy are located approximately 1km to the southwest and northwest of the site. The location of the mapped wetlands are shown on **Figure 5**.

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Given the extensive buffers from the site to the mapped wetland and subject to implementation of normal water quality management measures (as proposed) the existing State Environmental Planning Policy No. 14 – Wetlands do not impose a significant constraint on the development potential of the site.

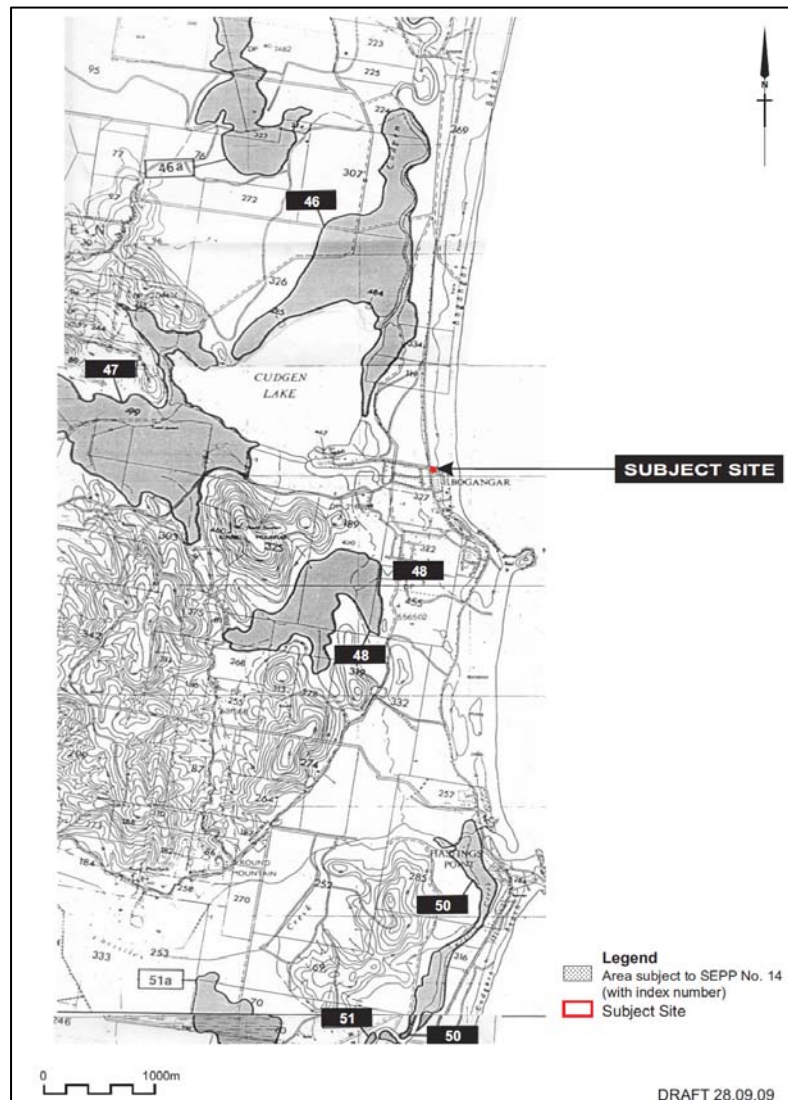


Figure 5 – SEPP14
Source: James Warren and Associates, March 2010

4.1.7 State Environmental Planning Policy 26 – Littoral Rainforest

The land to which this Major Project Application relates is not affected by the provisions of this State Environmental Planning Policy. The nearest mapped Littoral Rainforest under the provisions of this Policy is located approximately 600m to the south of the site as shown on **Figure 6**.

Given the extensive buffers from the site to the Littoral Rainforest the existing State Environmental Planning Policy No. 26 – Littoral Rainforest does not impose a constraint on the development potential of the site.

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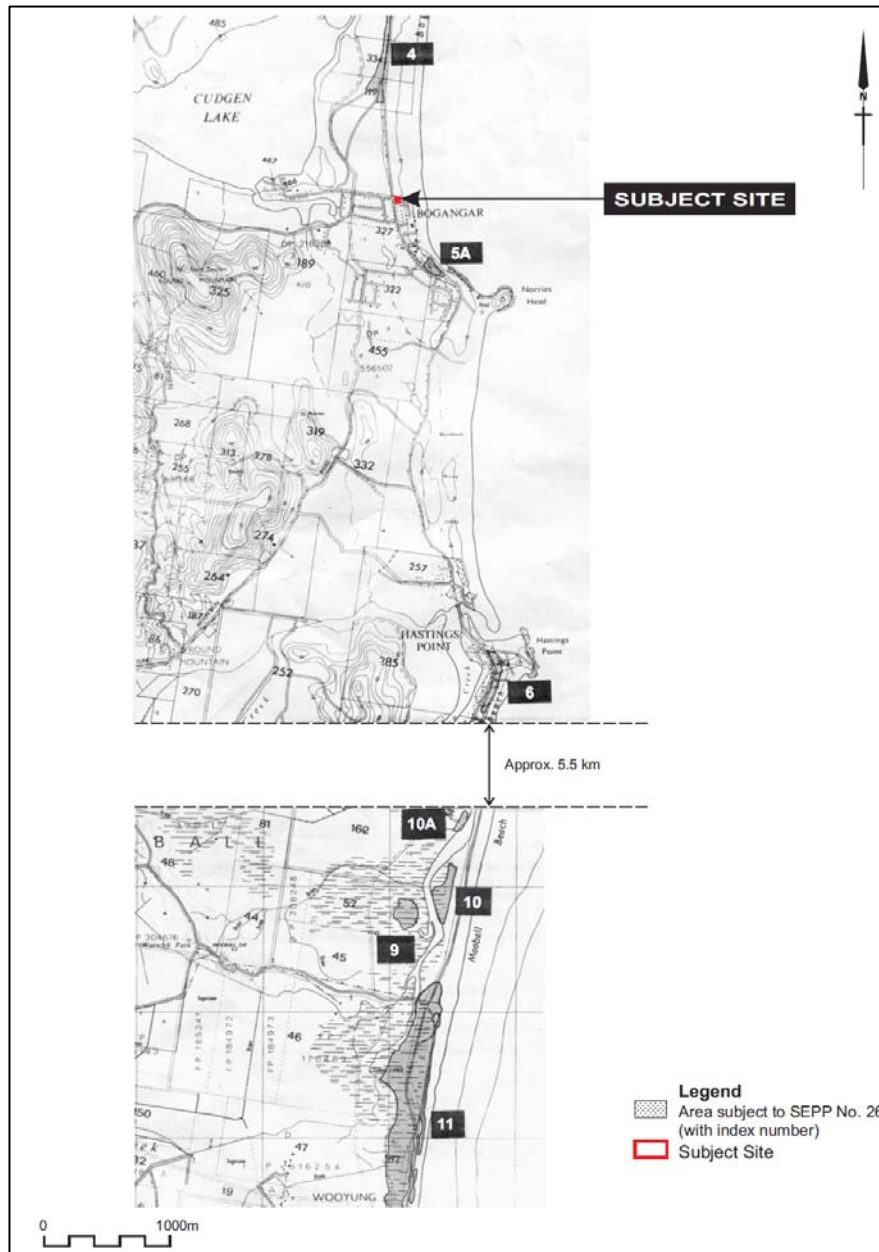


Figure 6 – SEPP26
Source: James Warren and Associates, March 2010

4.1.8 State Environmental Planning Policy – North Coast Regional Environmental Plan, 1988

The key provisions of this Policy are addressed in the following sections:

Clause 15 – Development Control – Rivers, Streams and Wetlands

This Clause seeks to ensure that development proposals do not adversely impact on the water quality and habitat values of downstream water bodies.

The Erosion and Sediment Control Plan (**Annexure 19**) and the Stormwater Management Plan (**Annexure 20**) include detailed measures for the control of water quality both during the construction and operational phases such that the objectives of this Clause are complied with.

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Clause 32B - Coastal Lands

Relevant provisions of this Clause are addressed in **Table 5** below.

TABLE 5 – COASTAL LANDS	
PROVISION	COMMENT
1) <i>“In determining an application for consent to carryout development on land to which the Coastal Policy applies, the Council shall take into account –</i> <i>a) The NSW Coastal Government Policy;</i> <i>b) The Coastline Management Manual; and</i> <i>c) The North Coast Design Guidelines</i>	The Relevant matters for consideration in this Policy are addressed at Section 4.5.12 of this report. The land is not affected by coastal processes. The key guidelines will be included in the design of the future buildings, particularly in relation to the building form, cladding materials, solar access and energy efficiency.
2) <i>The Council shall not consent to the carryout of development which would impede public access to the foreshore area;</i>	The site does not have frontage to the foreshore and therefore will not affect public access to the foreshore.
3) <i>The Council shall not consent to the carrying out of development –</i> <i>a) On urban land at Tweed Heads, Kingscliff, Byron Bay, Ballina, Coffs Harbour or Port Macquarie, if carrying out the development would result in beaches and adjacent open space being overshadowed before 3 pm mid-winter (standard time) or 6.30 pm mid-summer (daylight saving time); or</i> <i>b) Else where in the region, if carrying out the development would result in beaches or waterfront open space being overshadowed before 4 pm mid-winter (standard time) or 7 pm mid-summer (daylight saving time).”</i>	The proposed three storey development is located approximately 77m from the coastal foreshore reserve and approximately 175m to the high water mark. The proposal is unlikely to cast shadows to the coastal reserve at the statutory times.

Clause 43 – Development Control – Residential Development

This Clause provides that consent to development for residential purposes shall not be granted unless the consent authority is satisfied that the density of the dwellings have been maximised without adversely affecting the environmental features of the land and that road widths are not excessive.

The proposed layout achieves 24 residential and tourist accommodation units at a floor space ratio of 1.24:1. The proposed development which achieves compliance with the local statutory and policy controls is considered to optimise the density on the site without significantly impacting on landforms and the established character and amenity of the area.

Clause 66 – Development Control – Adequacy of Community and Welfare Services

This Clause provides that before granting consent for the subdivision of land intended for residential purposes the consent authority shall consider the adequacy of community and welfare services. As the proposal does not include subdivision it is not applicable. Notwithstanding this, the site is conveniently located in relation to the town of Tweed Heads which provides for all necessary requirements in terms of community services and facilities. In addition, as indicated in Section 4.5.11 of this report, Council requires contributions to be paid in respect of a range of community facilities likely to be required by future residents.

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4.1.9 State Environmental Planning Policy No. 65 – Design Quality of Residential Flat Development

This Policy applies to residential flat development defined as a building comprising three or more storeys containing four or more dwellings.

The Design Verification Statement and the principles contained in Part 2 of the Policy are addressed in the documents at **Annexure 8**. In summary the proposal complies with the design and documentation requirements of State Environmental Planning Policy No. 65.

4.2 Tweed Local Environmental Plan 2000

Tweed Local Environmental Plan 2000 is the principal planning instrument controlling development within Tweed Shire generally and the subject land in particular. Under the provisions of this Plan, the land is zoned 2(e) Residential Tourist. The zoning of the land is shown on **Annexure 2**.

The aims of the Local Environmental Plan are as follows:

"(a) to give effect to the desired outcomes, strategic principles, policies and actions of the Tweed Shire 2000+ Strategic Plan which was adopted, after extensive community consultation, by the Council on 17 December 1996, the vision of which is:

"The management of growth so that the unique natural and developed character of the Tweed Shire is retained, and its economic vitality, ecological integrity and cultural fabric is enhanced", and

(b) to provide a legal basis for the making of a development control plan that contains more detailed local planning policies and other provisions that provide guidance for future development and land management, such as provisions recommending the following:

- (i) that some or all development should be restricted to certain land within a zone,*
- (ii) that specific development requirements should apply to certain land in a zone or to a certain type of development,*
- (iii) that certain types or forms of development or activities should be encouraged by the provision of appropriate incentives, and*

(c) to give effect to and provide reference to the following strategies and policies adopted by the Council:

*Tweed Heads 2000+ Strategy
Pottsville Village Strategy, and*

(d) to encourage sustainable economic development of the area of Tweed compatible with the area's environmental and residential amenity qualities."

Based on the Assessment at Section 4.5.4 it is concluded that the project is generally consistent with aim (a) relating to the Tweed 2000+ Strategic Plan and the subsequent Tweed Strategic Plan 4/24.

In addition, the project is consistent with aim (d) in that it achieves Council's urban land release objectives by providing additional housing choice to accommodate the continuing population growth within Tweed Shire.

The objectives of the zone are as follows:

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“Primary objective

- *to encourage the provision of family-oriented tourist accommodation and related facilities and services in association with residential development including a variety of forms of low and medium density housing and associated tourist facilities such as hotels, motels, refreshment rooms, holiday cabins, camping grounds, caravan parks and compatible commercial services which will provide short-term accommodation and day tourist facilities.*

Secondary objective

- *to permit other development which has an association with a residential/tourist environment and is unlikely to adversely affect the residential amenity or place demands on services beyond the level reasonably required for residential use.”*

The proposal is considered to be consistent with the zone objectives as it will provide a mix of tourist accommodation units and residential units. The proposal will result in a substantial improvement of the present development which is located on a prominent site at the northern entry to Cabarita Beach.

The following clauses of the Plan are relevant to this application:

Clause 11 – Land Use Table

The Land Use Table for the 2(e) zone indicates that development for the purpose of Tourist Accommodation and Multi Dwelling Housing are Item 2 uses. Item 2 uses are development that is permissible with consent.

Clause 15 – Availability of Essential Services

All normal urban services are available to the site including reticulated sewer. The Civil Engineering Report at **Annexure 18** indicates that connections may be made to the existing water, sewer, drainage and road networks to accommodate the proposed development.

Clause 16 – Height of Building

A three storey height limit applies to this site. The proposal comprises three storeys and therefore complies with this requirement.

Clause 17 – Social Impact Assessment

In accordance with the provisions of this Clause and Tweed Development Control Plan 2008, Section A13 a Socio-Economic Impact Assessment would normally be required to accompany a Development Application for a development comprising greater than 50 units. As this project only involves 24 units and as this is a Major Project Application a Socio-Economic Impact Statement is not required. Nevertheless, information relating to social and economic issues is provided in this Environmental Assessment Report.

Clause 32 – Aircraft Noise

The site is not located on land within the 20 or higher ANEF contour and therefore this Clause is not applicable.

Clause 34 – Flooding

The adopted design flood level for Cabarita Beach is RL 3.4m AHD with a minimum residential floor level of RL 3.7m AHD. Land levels on the site range from RL 5.96m AHD (at the southeast corner) to approximately RL 8.23m AHD at the western boundary.

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The finished floor levels of the residential and tourist accommodation units is to be at RL 7.660m AHD and the entry to the basement car park will have all openings protected to a level of greater than 3.9m AHD. The site is therefore not subject to flooding and this Clause does not apply.

Clause 35 – Acid Sulphate Soils

In summary, this Clause provides that a person must not, without development consent, carry out works on land shown as being Class 1, 2, 3, 4 or 5 land on the series of maps held in the office of the Council and marked Acid Sulphate Soil Planning Map.

Council's Acid Sulphate Soils Planning Maps indicate that the site does contain Class 4 land. An Acid Sulphate Soils Assessment has been undertaken in accordance with this Clause and is attached as **Annexure 17**.

The Acid Sulphate Soil Assessment, which was conducted on samples taken to a depth of 4.5m below the existing surface levels in accordance with the relevant NSW Acid Sulphate Soils Advisory Committee (ASSMAC) Guidelines 1998 concluded that disturbance of this material is not going to lead to sulphate oxidation or significant levels of mobilised acidity and therefore no further action is necessary.

Clause 39 – Remediation of Contaminated Land

See comments under State Environmental Planning Policy No. 55 as addressed in Section 4.1.4 of this Report.

Clause 39A – Bushfire Protection

The land is mapped as bushfire prone and accordingly compliance with the publication "Planning for Bushfire Protection 2006" must be demonstrated.

A Bushfire Threat Assessment Report has been prepared (**Annexure 12**) and the Report concludes that:

"This report has addressed all matters required by Clause 44 of the Rural Fires Regulation for an application for a Bushfire Safety Authority or consideration of the bushfire threat.

The report has established that;

- *The proposed development satisfies the heads of consideration to be assessed with 'exceptional circumstances'.*
- *The recommended future construction will reduce the risk of ignition to the building.*
- *The intent of Planning for Bushfire Protection is satisfied.*

The recommendations of the Bushfire Threat Assessment Report are included in Section 8.6.4.

Clause 44 - Development of Land Within Likely or Known Archaeological Sites

This Clause is in the following terms:

"(1) The consent authority may grant consent to the carrying out of development on an archaeological site that has Aboriginal heritage significance (such as a site that is the location of an Aboriginal place or a relic within the meaning of the National Parks and Wildlife Act 1974), or a potential archaeological site that is reasonably likely to have Aboriginal heritage significance only if:

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-
- (a) it has considered an assessment of how the proposed development would affect the conservation of the site and any relic known or reasonably likely to be located at the site prepared in accordance with any guidelines for the time being notified to it by the Director-General of National Parks and Wildlife, and*
 - (b) it has notified the Director-General of its intention to do so and taken into consideration any comments received from the Director-General within 28 days after the notice was sent, and*
 - (c) it is satisfied that any necessary consent or permission under the National Parks and Wildlife Act 1974 has been granted."*

No Aboriginal archaeological sites or potential relics have been identified on the land. The Cultural Heritage Assessment at **Annexure 11** contains recommendations in relation to Aboriginal cultural heritage.

- "(2) The consent authority may grant consent to the carrying out of development on an archaeological site that has non-Aboriginal heritage significance or a potential archaeological site that is reasonably likely to have non-Aboriginal heritage significance only if:*
- (a) it has considered an assessment of how the proposed development would affect the conservation of the site and any relic known or reasonably likely to be located at the site prepared in accordance with any guidelines for the time being notified to it by the Heritage Council, and*
 - (b) it has notified the Heritage Council of its intention to do so and taken into consideration any comments received from the Heritage Council within 28 days after the notice was sent, and*
 - (c) it is satisfied that any necessary excavation permit required by the Heritage Act 1977 has been granted."*

No items of historic (non Indigenous) cultural heritage were identified in the Cultural Heritage Assessment at **Annexure 11**.

Clause 45 – Development In The Vicinity of Heritage Items, Heritage Conservation Areas, Archaeological Sites or Potential Archaeological Sites

The consent authority must take into consideration the likely effect of the proposed development on the heritage significance of a heritage item, heritage conservation area, archaeological site or potential archaeological site, and on its setting, when determining an application for consent to carry out development on land in its vicinity.

No heritage items, heritage conservation areas, archaeological sites or potential archaeological sites exist on the development site based on the provision of Schedule 2 of Tweed Local Environmental Plan 2000, Schedules 1 and 2 of the North Coast Regional Environmental Plan 1988 and the findings of the Cultural Heritage Assessment at **Annexure 11**.

4.3 Draft Tweed Local Environmental Plan 2010

The Draft Plan was publicly exhibited from 27 January 2010 to 30 April 2010.

The Draft Plan has been prepared in response to the State Government's requirement for all NSW Councils to prepare a single LEP which conforms to the requirements of the Standard Instrument (Local Environmental Plans) Order 2006 (the Template). The requirements of this Order prescribe that all Councils in NSW prepare a single LEP which conforms to the format and general content of the Template prepared by the Department of Planning.

Table 6 summarises the current and proposed zonings in respect of the subject land and the key current and proposed controls in each zone.

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TABLE 6 – LOCAL ENVIRONMENTAL PLAN COMPARISON TABLE										
Lot & DP	TWEED LOCAL ENVIRONMENTAL PLAN 2000					DRAFT TWEED LOCAL ENVIRONMENTAL PLAN 2010				
	Zoning	Key Controls				Zoning	Key Controls			
		Lot Size	Building Height	FSR	Permitted Uses		Lot Size	Building Height	FSR	Permitted Uses
Lots 1, 2 & 3 DP 29748 and Lot 4 DP 31209	2(e) Residential Tourist	450m ²	3 storey	Nil	Residential & Tourist Accommodation	RE2 Private Recreation	Nil	10m	Nil	Residential Prohibited Tourist Accommodation permitted

Under the provisions of Tweed Local Environmental Plan 2000, the subject land is zoned 2(e) Residential Tourist. This zoning has applied to the land since the introduction of Tweed Local Environmental Plan 1987 which was gazetted in January 1988. A three storey height limit applies to the subject land under Tweed Local Environmental Plan 2000.

The objectives of the Residential Tourist zone are as follows:

“Primary objective

- *to encourage the provision of family-oriented tourist accommodation and related facilities and services in association with residential development including a variety of forms of low and medium density housing and associated tourist facilities such as hotels, motels, refreshment rooms, holiday cabins, camping grounds, caravan parks and compatible commercial services which will provide short-term accommodation and day tourist facilities.*

Secondary objective

- *to permit other development which has an association with a residential/tourist environment and is unlikely to adversely affect the residential amenity or place demands on services beyond the level reasonably required for residential use.”*

It should be noted that within the 2(e) zone, development for the purposes of dwelling houses, multi dwelling housing, residential flat buildings and tourist accommodation is permissible with consent as an Item 2 use. Clearly, these uses are consistent with the zone objectives.

It should also be noted that Tweed Development Control Plan 2008, Section B19 Bogangar/Cabarita Beach Locality Plan applies to the subject land. Under the provisions of that Plan, the site is within the Residential Tourist Precinct. Section 19.8.4 of the Plan provides that the development design guidelines within Clauses B19.14, 19.15 and 19.16 of the Plan apply to developments within this precinct.

Insofar as maximum building height is concerned Section B19.16.4 (Maximum Building Height) of the Plan provides that the maximum building height for this precinct is 12m as shown on the Building Height Map.

The proposed mixed use residential building which is the subject of Major Project Application No. 09_0016 complies with the current 2(e) zone and the current three storey height limit and the 12m height limit contained within the Locality Plan.

Under the provisions of Exhibited Draft Tweed Local Environmental Plan 2010, it is proposed to back-zone the land to RE2 Private Recreation and establish a 10m building height.

It should be noted that development for residential purposes is prohibited in the RE2 zone, whilst tourist and visitor accommodation is permitted, with consent.

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The proposed RE2 zoning appears to reflect the current caravan park use rather than the intended mixed residential and tourist uses. In addition the proposed RE2 zoning is clearly inconsistent with the principal purpose of the Local Environmental Plan which is, in effect, to transport existing zonings to the nearest equivalent zone under the standard instrument. Clearly, an RE2 Private Recreation zone is not equivalent to a 2(e) Residential Tourist zone.

In this regard we note that the Casuarina Beach land which is currently zoned 2(e) Residential Tourist is proposed to be zoned R1 General Residential and R2 Low Density Residential.

As the Draft Tweed LEP appears to contain an error in respect of the proposed RE2 Private Recreation zoning and the 10m building height limit, an objection has been submitted to Tweed Shire Council along with a request that the land be zoned R1 General Residential, consistent with the Casuarina Beach land to the north, on which tourist development and multi dwelling housing is permitted.

However, we note that the objectives of the R1 zone include *“to encourage the provision of tourist accommodation and related facilities and services in association with residential development where it is unlikely to impact on amenity or place demands on services beyond the level reasonably required for residential use”*.

Notwithstanding this objective, we note that tourist and visitor accommodation is prohibited in the R1 zone. Clearly this is an anomaly and we have therefore requested Council to also amend the Land Use Table to make development for the purposes of tourist and visitor accommodation a permissible use, with consent, under Item 3 of the Land Use Table for the R1 zone.

Council has also been requested to amend the Building Height Map to provide for a maximum building height of 13.6m (N2) consistent with that proposed in the “commercial” area of Cabarita on the western side of the Tweed Coast Road.

In any case the Draft Tweed LEP 2010 contains a savings clause in the following terms:

“1.8A Savings provision relating to development applications [local]

If a development application has been made before the commencement of this Plan in relation to land to which this Plan applies and the application has not been finally determined before that commencement, the application must be determined as if this Plan had been exhibited but had not commenced.”

This Clause has the effect for this application, which was lodged prior to commencement of the Plan, that the Draft Plan should be considered as though it had been exhibited but not commenced, or as though the new LEP does not have determining weight.

In summary, the Draft Tweed LEP 2010 contains anomalies in relation to the proposed zoning and height limit of the subject site and submissions have been made within the exhibition period. In any case the application will not be adversely affected by the Draft LEP 2010 due to the savings clause within the LEP relating to applications made prior to commencement of the Plan.

4.4 Development Control Plans

4.4.1 Tweed Development Control Plan 2008, Section A1 – Residential and Tourist Code

This Plan includes detailed development controls relating to the design and siting of residential flat and tourist accommodation buildings. An assessment against the controls of Tweed DCP 2008, Section A1 is provided in **Table 7**.

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TABLE 7 - CHECKLIST OF DCP 2008 SECTION A1 PLANNING CONTROL (EXTRACTS)	
CHAPTER 1 – BUILDING TYPES	
Residential Flat Buildings	
Block Edge Residential Flat Building	
CONTROLS	PROPOSAL
a. Maximum building and elevation length along the street is 35m.	The proposed building provides building lengths of 26m and 32m to the street frontages.
b. Minimum lot size 2000m ² .	The lot size is 2822m ² .
c. The buildings street elevation is to be articulated to have a base, middle and top..	The building's design is appropriately articulated and provides a base middle and top.
d. Front doors, windows and entry areas are to face the street.	The pedestrian entry to the building is easily identifiable from the street frontage.
e. Ground level dwellings with a street frontage are to have a pedestrian access from the street.	Pedestrian access is provided from ground level units via the central atrium area.
f. Front fencing and landscaping is to be provided within the front setback and is to enhance the character of the street and the building.	The proposal provides front fencing and landscaping as an integral part of the building design.
g. Car parking areas are located to the rear or the centre of lots away from the street front or underground.	Basement car parking is provided within the development.
h. Block Edge Residential Flat Buildings must comply with the Controls found in this Part.	Noted.
CHAPTER 2 – SITE AND BUILDING DESIGN CONTROLS	
DESIGN CONTROL 1 – Public Domain Amenity	
Streetscape	
CONTROLS	PROPOSED
a. Site design, building setbacks and the location and height of level changes are to consider the existing topographic setting of other buildings and sites along the street, particularly those that are older and more established.	<p>The site is located in a prominent corner location at the northern entry to the village. The site has an extensive 61.7m primary frontage to Tweed Coast Road and a 50.292m secondary frontage to Cypress Crescent. A bushfire hazard exists to the west of the site.</p> <p>As such the proposed building setbacks are considered appropriate given the significance of the corner location and the elevated nature of the site which assists the building in making a statement at the entry to the village.</p> <p>The landscaping proposed with the development of the site and the removal of the existing driveway crossover to the Tweed Coast Road will improve the appearance of the site.</p>
<p>b. The design of the front deep soil zone and boundary interface to the public domain is to complement or enhance streetscape character by:</p> <ul style="list-style-type: none"> - providing for landscaping; lawn, trees or shrubs characteristic with existing properties or of such design as to enhance the quality and appearance of the dwelling and surrounding area, - reflecting the character and height of fences and walls along the street, or of such design as to enhance the quality and appearance of the dwelling and surrounding area, 	<p>Refer to the Landscape Plan (Annexure 10). The proposed landscaping will result in a substantial improvement to the existing situation.</p> <p>The proposed front fence is similar in height and materials to other fences along Tweed Coast Road. The proposed fence is therefore considered to be consistent with the character of the area.</p>

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TABLE 7 - CHECKLIST OF DCP 2008 SECTION A1 PLANNING CONTROL (EXTRACTS)

CONTROLS	PROPOSED
<ul style="list-style-type: none"> - reflecting the character and layout of established front gardens of other allotments in the street, particularly older and well established garden landscapes, - retaining, protecting or replacing existing vegetation and mature trees, 	<p>Refer to the Landscape Plan (Annexure 10).</p> <p>Refer to the Landscape Plan (Annexure 10).</p>
<p>c. Carports and garages visible from the public street are to;</p> <ul style="list-style-type: none"> - be compatible with the building design, including roofs, - be setback behind the dwellings front elevation. 	<p>Not applicable.</p>
<p>a. Minimise driveways and hardstand areas to increase the area for deep soil zones and landscaping and to reduce the visual impact of driveways and hard surfaces from the street.</p>	<p>The provision of hardstand areas has been minimised as reflected in compliance with the overall impervious site calculations.</p>
<p>e. Facades visible from the public domain are to be well designed by:</p> <ul style="list-style-type: none"> - having important elements such as front doors and building entry areas prominent in the building facade and clearly identifiable from the street, - coordinating and integrating building services, such as drainage pipes, with overall facade design, - integrating the design of architectural features, including stairs and ramps, and garage/carport entries with the overall facade design, and by locating car parking structures on secondary streets where possible, - ensuring corner buildings have attractive facades which address both streets frontages, including the careful placement and sizing of windows, - ensuring entrance porticos are single storey. 	<p>The main pedestrian entry to the building is located in the vicinity of the corner of Tweed Coast Road and Cypress Crescent. The entry to the site is clearly defined within the elevation.</p> <p>Building services are integrated within the building design.</p> <p>Stairs and ramps are incorporated within the landscape design and the entry to units at all levels is via the central atrium structure.</p> <p>Access to the proposed basement is via the secondary frontage to Cypress Crescent.</p> <p>The design of the building provides an effective and well articulated address to both frontage of the site.</p> <p>The entry structure is single storey.</p>
Public Views and Vistas	
CONTROLS	PROPOSED
<p>a. The location and height of new developments is not to significantly diminish the public views to heritage items, dominant landmarks or public buildings from public places.</p>	<p>The proposal will not affect views to a heritage item, dominant landmarks or public buildings.</p>
<p>b. The location and height of new development is to be designed so that it does not unnecessarily or unreasonably obscure public district views of major natural features such as the water, ridgelines or bushland.</p>	<p>The proposal will not unreasonably affect views to major natural features.</p>
<p>c. The location and height of new development is to be designed so that it does not unnecessarily or unreasonably obscure public view corridors, for example, down a street.</p>	<p>The proposal will not affect the available view corridor along the Tweed Coast Road or Cypress Crescent.</p>

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TABLE 7 - CHECKLIST OF DCP 2008 SECTION A1 PLANNING CONTROL (EXTRACTS)	
CONTROLS	PROPOSED
d. The location and height of new development is to be designed to minimise the impact on public views or view corridors between buildings.	The proposal will provide compliant side and generous (8m) rear boundary setbacks and therefore will not adversely affect any view corridor between buildings.
DESIGN CONTROL 2 – Site Configuration	
Deep Soil Zones	
CONTROLS	PROPOSED
a. Deep Soil Zones must be provided for all new developments and existing development, except on non urban land with site areas greater than 5000m ² and development with ground level commercial floor space.	A front and rear/side DSZ is proposed.
b. All sites are to provide two Deep Soil Zones, one to the rear and one to the front of the property.	A front and rear/side DSZ is proposed.
c. Rear Deep Soil Zones are to have minimum width of 8m or 30% of the average width of the site whichever is the greater and a minimum depth of 18% of the length of the site up to 8m but not less than 4m. Greater than 8m may be provided if desirable.	Based on the controls of Section A1 the rear DSZ is to be 15m wide by 8m deep. A rear DSZ of 12m wide by 7.8m deep is provided adjacent to Unit 4. In addition a further area of deep soil zone with dimensions of approximately 35m x 3m is provided along the rear boundary. The total area of deep soil landscaped area available exceeds the equivalent area required.
d. Rear Deep Soil Zones are to have soft landscaping; refer to Landscaping Section.	Soft landscaping is to be provided to the nominated DSZs.
e. Front Deep Soil Zones are to be the width of the site boundary minus the driveway width and the pathway width by the front setback depth.	The site has a total of 112m of frontage. Over 50m of the frontage will be provided as DSZ.
f. Front Deep Soil Zone areas are to have soft landscaping, vegetation and at least one tree.	Refer to the Landscape Plan (Annexure 10).
g. Deep Soil Zones cannot be covered by impervious surfaces such as concrete, terraces, outbuildings or other structures.	See comments above.
h. Deep Soil Zones cannot be located on structures such as car parks or in planter boxes.	See comments above.
i. The Deep Soil Zone is to be included in the total permeable area for the allotment.	See comments above.
Impermeable Site Area	
CONTROLS	PROPOSED
a. An allotment's runoff shall be dispersed onto grassed, landscaped or infiltration areas, of the allotment, unless this is inconsistent with the geotechnical stability of the site or adjacent/downstream land.	The design of the building provides extensive areas of deep soil landscaping. Runoff from hardstand surfaces is to be directed to on site infiltration where possible. The proposal includes a rainwater collection tank for use in landscape irrigation and pool top up.
b. The concentration, collection and piping of runoff to the street gutter or underground stormwater system shall be minimised unless this is inconsistent with the geotechnical stability of the site or adjacent/downstream land.	See comment above.
c. Rain water shall be collected in tanks and reused.	A rainwater tank will be provided.

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TABLE 7 - CHECKLIST OF DCP 2008 SECTION A1 PLANNING CONTROL (EXTRACTS)	
CONTROLS	PROPOSED
d. Site surface depressions in landscaping are to be utilised for on-site detention and infiltration unless this is inconsistent with the geotechnical stability of the site or adjacent/downstream land.	The site design has optimised the pervious area of the site to allow infiltration of ground runoff where possible.
e. Runoff is to be minimised, delayed in its passage and where possible accommodated within the landscape of the development site unless this is inconsistent with the geotechnical stability of the site or adjacent/downstream land.	The site design has optimised the pervious area of the site to allow infiltration of ground runoff where possible.
f. A schedule of the breakdown/calculation of impermeable site area must be submitted with the development application.	The impermeable site area schedule is provided on the Site Plan.
g. The maximum areas for impervious surfaces are: <ul style="list-style-type: none"> - 70% of the allotment - On lot sizes less than 500m². - 65% of the allotment - On lot sizes between 500m² and 750m² inclusive. - 60% of the allotment - On lot sizes greater than 750m². 	<p>Not Applicable.</p> <p>Not Applicable.</p> <p>Max impervious area 60%. Proposal provides 60%.</p>
External Living Area	
CONTROLS	PROPOSED
a. External living areas are best located adjacent to the internal living (dining rooms, living room, or lounge room) areas so as to extend the overall living space.	Each unit has a private open space area adjacent to the main living area.
b. External living areas should be suitably screened to achieve visual privacy if located less than 4m from a side boundary.	The proposal provides a combination of louvered screens and landscaping to the ground floor units in order to provide adequate privacy screen to the side boundary.
c. External living areas are to be no closer to the side boundaries than 900mm.	The private open space areas are located a minimum of 1.5m from the side boundary.
d. External living areas are to be designed to ensure water does not enter the dwelling.	Noted.
e. External living areas should be oriented to north where possible.	The majority of units are provided with private open space areas which are orientated to the east or north.
Above Ground External Living Spaces, Balconies and Terraces	
CONTROLS	PROPOSED
a. Above ground external living areas are to have a minimum depth of 2.5m and a minimum area of 10sq.m.	All units have complying dimensions for private open space.
b. Balconies and terraces off minor rooms have no minimum depth or width.	Noted.
c. Above ground external living areas are to be; <ul style="list-style-type: none"> - located adjacent to the main living areas, such as living room, dining room, kitchen to extend the dwelling living space, 	Each unit has an outdoor area located adjacent to the main living area.

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TABLE 7 - CHECKLIST OF DCP 2008 SECTION A1 PLANNING CONTROL (EXTRACTS)	
CONTROLS	PROPOSED
- sufficiently large and well proportioned to be functional and promote indoor/outdoor living to fit a dining table and our chairs.	The private outdoor areas will accommodate a table and chairs.
Communal Open Space	
CONTROLS	PROPOSED
a. Communal open space must be provided for with any developments of more than 10 dwellings to provide recreational or relaxation uses for residents.	Communal open space including a swimming pool, spa, gym, barbeque and toilet facilities, in addition to the entry atrium lounge, is provided within the development.
b. Communal open space is not to be located such that solar access, privacy and outlook to dwellings are reduced.	Communal open space is appropriately located with landscaping elements to protect amenity of units.
c. The design of communal open space must demonstrate how it achieves specific functions that enhance the livability and residential amenity of the development and how it will serve the needs and number of people within the development.	The communal open space is of sufficient size and embellishment to adequately cater for the demand generated by residents and guests.
d. The location and design of communal open space must not compromise achieving the minimum separation distances and minimum areas for external living areas.	The siting of the communal open space does not affect separation distance to external living areas.
e. Communal open space is to be designed such that its size and dimensions allow for particular uses.	The size and dimensions will allow sufficient space for the intended activities.
Landscaping	
CONTROLS	PROPOSED
a. Retain existing landscape elements on sites such as natural rock outcrops, watercourses, dune vegetation, indigenous vegetation and mature trees.	Refer to the Landscape Plan (Annexure 10).
b. On lots adjoining bushland, protect and retain indigenous native vegetation and use native indigenous plant species for a distance of 10m from any lot boundaries adjoining bushland.	Refer to the Landscape Plan (Annexure 10).
c. Locate and design the building footprint to enable the retention of existing trees.	The suitability of existing vegetation has been considered in the Landscape Plan (Annexure 10).
d. Buildings are not to be sited under the drip line of an existing tree.	Refer to the Landscape Plan (Annexure 10).
e. Provide useful outdoor spaces for liveability by coordinating the design of external living areas, driveways, parking areas, communal drying areas, swimming pools, utility areas, deep soil areas and other landscaped areas with the design of the dwelling.	The layout of the site has been optimised in relation to the proposed building and unit layouts and site features.
f. Where the ground floor level of a dwelling is above the finished external ground level reached through a door or doorways, there is to be a physical connection made between these levels. Examples of a physical connection include stairs, terraces, and the like.	Stairs connect paths of travel within the development.
g. Provide a landscaped front garden.	Refer to the Landscape Plan (Annexure 10).

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TABLE 7 - CHECKLIST OF DCP 2008 SECTION A1 PLANNING CONTROL (EXTRACTS)	
CONTROLS	PROPOSED
h. A pathway with a minimum width of 900mm is to be provided along one side of the dwelling so as to provide pedestrian access from the front garden to the rear yard. This access is not to be blocked by such things as landscaping features, rainwater tanks, hot water heaters and retaining walls. The pathway does not need to be provided on allotments which have rear lane access.	Access is available along the western side of the building.
i. Landscape elements in front gardens such as plantings are to be compatible with the scale of development.	Refer to the Landscape Plan (Annexure 10). The proposed plantings including Norfolk Pines are compatible with the three storey building scale.
j. The front garden is to have at least 1 canopy tree with a minimum mature height of 10 metres.	Landscaping is to be in accordance with the Landscape Plan (Annexure 10).
k. Where the backyard does not have a mature tree at least 15m high, plant a minimum of one large canopy tree in the back yard. The tree is to be capable of a mature height of at least 15m and is to have a spreading canopy.	Landscaping is to be in accordance with the Landscape Plan (Annexure 10).
l. Locate and design landscaping to increase privacy between neighbouring dwellings.	The Landscaping Plan is to provide improved amenity within the site and screening between the site and the property to the north.
Planting on Structures	
CONTROLS	PROPOSED
a. Planting on structures is not to occur in areas that cannot be easily accessed either from dwelling external living areas or communal areas.	The on structure plantings are accessible from dwelling external living areas or communal areas.
b. Optimise plant growth by:	Landscaping is to be in accordance with the Landscape Plan (Annexure 10).
- providing soil depth, soil volume and soil area appropriate to the size of the plants to be established,	
- providing appropriate soil conditions and irrigation methods,	
- providing appropriate drainage.	
Topography, Cut and Fill	
CONTROLS	PROPOSED
a. Building siting is to relate to the original form of the land.	The site has a gentle slope and the change in grade is accommodated in the building design.
b. Alternatives to slab on ground construction are to be encouraged where it is obvious that due to the gradient and characteristics of the site, major excavation or filling as a result of raft slab, construction would be inappropriate. Example of alternative construction includes: Bearer and joist construction; Deepened edge beam; Split level design; Suspended slab design.	Not applicable.
c. On sloping sites step buildings or utilise site excavation and suspended floors to accommodate changes in level rather than levelling the site via cut and fill.	The change in level at the eastern end is addressed by low timber decks at the northern side.

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TABLE 7 - CHECKLIST OF DCP 2008 SECTION A1 PLANNING CONTROL (EXTRACTS)	
d. Dwellings must not be designed to be on a contiguous slab on ground type if the building site has a slope of greater than 10%. Development on such land is to be of pole or pier construction or multiple slabs or the like that minimise the extent of cut and fill.	Not Applicable.
e. Site excavation / land reforming is to be kept to a minimum required for an appropriately designed site responsive development.	A basement car park is proposed.
f. The maximum level of cut is 1m and fill is 1m except for areas under control j.	Not Applicable.
g. Retaining walls maximum 1.2m.	Retaining walls of greater than 1.2m will not be required.
h. Cut areas are to be set back from the boundaries at least 900mm; fill areas are to be setback from the boundary a minimum of 1.5m.	Not Applicable.
i. Cut and fill batters shall not exceed a slope of 1:2 (v:h) unless geotechnical reports result in Council being satisfied with the site stability. All batters are to be provided with both short term and long term stabilisation to prevent soil erosion.	Not Applicable.
j. Excavations in excess of one metre within the confines of the building and on driveways may be permitted, to allow for basement garages providing the excavations are adequately retained and drained, in accordance with engineering details.	Not Applicable.
k. Filled areas are to be located where they will not impact on the privacy of neighbours.	Not Applicable.
l. Stormwater or surface water runoff shall not be redirected or concentrated onto adjoining properties so as to cause a nuisance and adequate drainage is to be provided to divert water away from batters.	Not Applicable.
m. The top of any battered cut (or retaining wall) and the toe of any battered fill (or retaining wall) is not to be closer than 900mm to any property boundary, where the overall height at any point exceeds 500mm.	Not Applicable.
<i>Variations to Cut and Fill Design</i>	
m. Variations to the requirements above will be permitted to create a flat yard space not exceeding 15% of the area of the lot for the purposes of outdoor living, recreation, clothes drying, swimming pool and the like.	Not Applicable.
n. Proposed variations to the controls must demonstrate that the excavation or filling of the site is in harmony with the natural landform/environment and will not adversely affect the adjoining properties.	Not Applicable.
o. Where a property is burdened by stormwater or water and sewerage mains then Council will generally preclude any excavation or filling within that easement.	Not Applicable.

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TABLE 7 - CHECKLIST OF DCP 2008 SECTION A1 PLANNING CONTROL (EXTRACTS)

DESIGN CONTROL 3 – Setbacks	
Front Setback (Building Lines)	
CONTROLS	PROPOSED
a. In new areas Shop-top Housing and Shop-top Residential Flat Buildings are to be built to the street boundary.	Not Applicable.
b. In new areas Residential Flat Buildings are to have a street setback of 6m.	Cypress Crescent is not a "new area".
c. On corner sites in new and existing areas the setback along the secondary street (the street to which the dwelling has its secondary frontage) is 3m.	A 3m setback to Cypress Crescent is proposed.
d. Where a site has dwellings with frontages to two or more streets, the street setbacks for these frontages are to be considered as front setbacks and there be 6m.	A 6m setback is provided to Tweed Coast Road and a 3m setback is provided to Cypress Crescent (see above).
e. In established areas Shop-top Housing and Shop-top Residential Flat Buildings are to be built to the street boundary.	Not Applicable.
f. In established areas Residential Flat Buildings are to be setback from the street boundary by 6m with a variance of up to plus or minus 1m (ie. between 5m to 7m).	A 6m setback is provided to Tweed Coast Road and a 3m setback is provided to Cypress Crescent.
g. Basement garages cannot be located forward of the building footprint.	The basement is in line with the building footprint
h. On grade parking must be located a minimum of 6m setback from the buildings front elevation or to the rear of the site.	Parking is within the basement.
Side Setbacks	
CONTROLS	PROPOSED
a. Shop-top Housing and Shop-top Residential Flat Buildings must have zero side setbacks for at least 5m back from the street boundary.	Not Applicable.
b. Residential Flat Buildings can have minimum of 1.5m setbacks.	The proposal will provide a 1.5m (east) side setback.
<i>Primary windows of living rooms facing the side boundaries</i>	
c. Shop-Top Housing with walls containing the primary windows of living rooms facing the side boundaries are to be setback a minimum of 4m from the boundary and be screened.	Not Applicable.
d. Shop top Residential Flat Buildings and Residential Flat buildings with the primary windows of living rooms facing the side boundaries are to be setback a minimum of 6m and meet the distances as set out in the Separation Controls.	Setbacks to the living area of more than 6m are provided.
<i>Garages and basement parking</i>	Not Applicable.
e. Garages may be located within 450mm of a side boundary.	

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TABLE 7 - CHECKLIST OF DCP 2008 SECTION A1 PLANNING CONTROL (EXTRACTS)	
CONTROLS	PROPOSED
f. Carports may be located adjacent to a side boundary.	Not Applicable.
g. Basement garages are to be set back a minimum of 1.5m from the side boundaries but preferably in line with the building above.	Basement is setback 1.5m from the side boundary.
h. Driveways may be located adjacent to the side boundaries only where front fences have 60% openness ratio for the first 2m along the boundary adjacent to the driveway to achieve sight lines as set out in AS2890.	The proposed driveway is not located adjacent to the side boundary.
Rear Setbacks	
CONTROLS	PROPOSED
a. The minimum rear boundary setback is 8m or the deep soil zone whichever is the greater. The minimum building separation distances must be met.	The proposed rear building line setback is 8m.
b. For Shop-top Housing and Shop-top Residential Flat Buildings the rear setback can be a minimum of zero.	Not Applicable.
c. For Residential Flat Buildings existing mature trees within 6m of the rear boundary are to be retained.	Refer to the Landscape Plan (Annexure 10). Note that the Cudgen Nature Reserve is located to the north of the site.
d. Garages and carparking may be located adjacent to the rear setback.	Not Applicable.
DESIGN CONTROL 4 – Carparking and Access	
Carparking Generally	
CONTROLS	PROPOSED
a. Carparking is to be in accordance with Section A2 of the Tweed Shire Development Control Plan.	The proposal complies with TDCP 2008, Section A2.
b. Carparking number concessions may be given to small sites to allow carparking to be fully under the buildings footprint.	Not Applicable.
c. Carparking can be either in an enclosed structure (a garage or basement) or an open roofed structure (a carport).	Parking is within the basement.
d. Carparking cannot be located within the front setback.	No car parking is provided within the front building setback.
e. Car park entries are to be located off secondary streets and laneways where these occur.	The car park entry is off Cypress Crescent.
f. The driveway width from the street to the property boundary is to be minimised.	The driveway has been designed to minimise the width of the crossover.
g. Vehicular movement and parking areas are to be designed to minimum dimensions; - to reduce hard surfaces on the lot, and - to increase the area available for landscaping.	Hardstand area for the driveway has been minimised.
h. On grade carparking cannot occur within 12m of the primary street boundary for flat buildings and 6m for Shoptop.	Parking is within the basement.

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TABLE 7 - CHECKLIST OF DCP 2008 SECTION A1 PLANNING CONTROL (EXTRACTS)

Basement Carparking	
CONTROLS	PROPOSED
a. Basement carparking cannot extend more than 1m above ground where it faces a public street or public space, 1.5m above ground level can be achieved to the side and the rear of the lot where it does not face a public street or public space.	The top of the basement car park is level with the finished ground level at the western end of the site and extends to be a maximum of 1.5m above ground level at the eastern end which is in accordance with the Tweed LEP 2000 definitions and building height development standard.
b. A ramp entering off a public street must start behind the boundary. Ramps cannot be located on public land.	Complies.
c. Ramps are to be minimised in width.	Complies.
d. The walls of basement carparks are best located in line with the buildings footprint. Basement carparking is not to extend outside the external line of terraces, balconies and porches.	Complies.
Garages and Carports	
CONTROLS	PROPOSED
a. The design and materials used for garages must be in keeping with the main dwelling.	Not Applicable.
b. Shop-top on-grade carparking cannot be located closer than 6m from the street boundary. On-grade carparking can be located on a laneway boundary.	Not Applicable.
c. For Residential Flat buildings garage doors and entries to basement carparks along the street cannot be more than 7m wide or 50% of the lot width whichever is the lesser.	Not Applicable.
d. Laneways may have up to 75% of their frontage as garage doors.	Not Applicable.
e. For Shop-top housing and Shop-top Residential Flat buildings garage doors along the street are to be located either in line with the buildings street elevation or at least 1m behind the buildings street elevation.	Not Applicable.
f. Where a development has a carport refer to the Carport Controls in Part B – Dual Occupancy Houses, Granny Flats, Town Houses and Row Houses.	Not Applicable.
g. A pedestrian access way from the laneway is encouraged.	Not Applicable.
DESIGN CONTROL 5 – Building Footprint and Attics, Orientation and Separation	
Building Footprint and Attics	
CONTROLS	PROPOSED
a. For buildings that only have daylight access to two and opposite sides of the building the back wall of a room cannot be greater than 10 metres from a window.	Each unit is less than 10m in width.
b. Attic spaces cannot be more than 50% of the building footprint.	Not Applicable.

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TABLE 7 - CHECKLIST OF DCP 2008 SECTION A1 PLANNING CONTROL (EXTRACTS)	
CONTROLS	PROPOSED
c. The majority of the volume of an attic is to be contained within the roof space.	Not Applicable.
Building Orientation	
CONTROLS	PROPOSED
a. All dwellings with a street frontage(s) are to be orientated to and address the street(s).	Units with frontage to Cypress Crescent are orientated to that frontage. Unit 1 which has frontage to Tweed Coast Road is orientated with the private open space to the desirable north aspect rather than to a designated road, which would present amenity issues.
b. Ensure that the pedestrian entry to the development is clearly visible and accessible from the street.	The pedestrian entry to the site is clearly visible and accessible from the street.
c. Where possible orientate bathroom, laundry and other ancillary room windows to the side boundaries.	The proposed design internalises ancillary rooms.
d. Where possible orient the primary windows of living rooms to the front or the rear of lots.	The proposal orientates primary windows of living rooms to the front or the rear where possible.
e. Orient living areas to employ passive solar design principles.	Living areas are orientated to receive solar access.
Building Separation	
CONTROLS	PROPOSED
a. Three storey buildings require a 10m minimum separation between the wall containing primary windows/doors of living rooms (on any level of the building) to the wall of an adjacent building containing primary window/doors of living rooms.	No windows or doors of a primary living room are located on the adjoining site.
b. Two storey buildings require an 8m minimum separation between the wall containing primary windows/doors of living rooms (on any level of the building) to the wall of an adjacent building containing primary window/doors of living rooms.	Not Applicable.
c. 6m minimum separation distance between primary windows/doors (on any level of the building) of living rooms to windows other than the primary windows of living rooms.	Living areas do not face primary living areas windows or doors.
d. 4m min separation between walls containing primary windows/doors of living rooms (on any level of the building) the side boundaries.	Minimum 6m setback from a living area to the side boundary.
e. 4m minimum separation between the primary windows of living rooms (on any level of the building) and walls containing no windows.	Minimum 6m setback from a living area to the side boundary.
f. 4m minimum separation between walls containing primary windows/doors of living rooms (on any level of the building) to shared driveways.	The wall containing the primary window/door of Unit 7 is located within 4m of the shared driveway (located above). However the unit is located higher than the driveway and screening is provided to maintain appropriate amenity for proposed Unit 7.
g. 4m minimum separations between walls containing primary windows/doors of living (on any level of the building) to carports and garages.	Not Applicable.

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TABLE 7 - CHECKLIST OF DCP 2008 SECTION A1 PLANNING CONTROL (EXTRACTS)	
CONTROLS	PROPOSED
h. 3m minimum separation between walls containing primary windows/doors sleeping rooms (on the ground level only) to shared driveways, carports and garages.	The wall containing the sleeping room window of Unit 7 is located within 3m of the driveway. The unit is located higher than the driveway and screening other than normal window coverings are not required.
i. 2m min separation distance between the windows/doors of non-habitable rooms (on any level of the building). This distance can be measured diagonally.	Separation of greater than 2m is provided to windows.
DESIGN CONTROL 6 – Height	
Building Height	
CONTROLS	PROPOSED
a. 13.6m is the maximum overall building height for Shop-top Housing and Shop-top Residential Flat Buildings.	Not Applicable.
b. 11m is the maximum wall plate height for Shop-top Housing and Shop-top Residential Flat Buildings.	Not Applicable.
c. 12.2m is the maximum overall height building height for Residential Flat Buildings.	The proposed building height is 11.8m.
d. 9.6m is the maximum wall plate height for Residential Flat Buildings.	The proposed top plate height is 10.65m.
e. Detached garages are to have an eave height of no more than 2.7m and a maximum overall building height of 3.5m for a flat roof and 4.5m for a pitched roof.	Not Applicable.
f. Carports maximum height 3.5m for a flat roof and 4.5m for a pitched roof.	Not Applicable.
Ceiling Height	
CONTROLS	PROPOSED
a. Provide minimum ceiling heights of 2.7m min. finished floor level to finished ceiling level for habitable rooms. For habitable rooms with a raking ceiling at least 30% of the ceiling is to be at 2.7m high.	The proposal ceiling height is approximately 2.7m.
DESIGN CONTROL 7 – Building Amenity	
Sunlight Access	
CONTROLS	PROPOSED
a. Living spaces are to be located predominantly to the north where the orientation of the allotment makes this possible.	Living areas are orientated to the north and east.
b. Dwellings on allotments which have a side boundary with a northerly aspect are to be designed to maximise sunlight access to internal living areas by increasing the setback of these areas. In these cases a minimum side setback of 4 metres is required.	Not Applicable.
c. Private open space of the subject dwelling is to receive at least two hours sunlight between 9am and 3pm on June 21.	Most private open space areas have either an easterly or northerly aspect. Accordingly most are likely to receive at least two hours sunlight between 9am and 3pm on June 21.

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TABLE 7 - CHECKLIST OF DCP 2008 SECTION A1 PLANNING CONTROL (EXTRACTS)	
CONTROLS	PROPOSED
d. Windows to north-facing habitable rooms of the subject dwelling are to receive at least 3 hours of sunlight between 9am and 3pm on 21 June over a portion of their surface.	Adequate solar access will be available to the north facing open space and windows.
e. For neighbouring properties ensure:	
<ul style="list-style-type: none"> - sunlight to at least 50% of the principal area of private open space of adjacent properties is not reduced to less than 2 hours between 9am and 3pm on June 21, and - windows to living areas must receive at least 3 hours of sunlight between 9am and 3pm on 21 June. 	<p>The property to the east will maintain adequate solar access to private open space.</p> <p>See comment above.</p>
f. Where existing overshadowing by buildings is greater than this, sunlight is not to be further reduced by more than 20%.	Not Applicable.
Visual Privacy	
CONTROLS	PROPOSED
a. Terraces and balconies off living areas are generally not to be located above ground floor if they overlook neighbours.	The proposal is for a three storey building and balconies are provided.
b. Living room and kitchen windows, terraces and balconies are avoid a direct view into neighbouring dwellings or neighbouring private open space.	The kitchen or living room windows will not provide direct views to neighbouring private open space.
c. Side windows are to be offset by distances sufficient to avoid direct visual connection.	The proposal will provide appropriate window openings. Side windows do not provide direct visual connection to those of the neighbouring dwelling.
d. windows of the subject dwelling and those of the neighbouring dwelling.	
Acoustic Privacy	
CONTROLS	PROPOSED
a. The noise of an air conditioner, pump, or other mechanical equipment must not exceed the background noise level by more than 5dB(A) when measured in or on any premises in the vicinity of the item. This may require the item to have a sound proofed enclosure.	Pool pump and air conditioner condensers are to be sited in the basement.
b. Dwellings located on designated or classified roads are to have double glazed windows where these windows face the road and provide light to living rooms or bedrooms. This is the case whether or not the dwelling has a solid masonry wall to the arterial road.	Refer to Road Traffic Noise Report (Annexure 14).
c. Dwellings located on arterial roads are to have an acoustic seal on the front door to reduce noise transmission.	Refer to Road Traffic Noise Report (Annexure 14).
View Sharing	
CONTROLS	PROPOSED
a. Building siting is, as far as it is practical, to be designed to minimise the impact on view sharing between properties.	The proposal is unlikely to intercept any significant view corridor from adjoining properties.

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TABLE 7 - CHECKLIST OF DCP 2008 SECTION A1 PLANNING CONTROL (EXTRACTS)

Natural Ventilation	
CONTROLS	PROPOSED
a. All dwellings are to have operable windows to habitable rooms.	Each dwelling will have operable windows to habitable rooms.
b. Non habitable rooms including kitchen, bathroom & laundry are encouraged to have operable windows.	Where the non-habitable room has a window, it will be operable.
c. The plan layout, including the placement of openings, is to be designed to optimise access to prevailing breezes and to provide for cross-ventilation.	Each unit layout will facilitate cross ventilation.
DESIGN CONTROL 8 – Internal Building Configuration	
Use	
CONTROLS	PROPOSED
a. Permanent and temporary accommodation uses are interchangeable throughout all building types covered in this Part.	Noted.
Dwelling Layout and Design	
CONTROLS	PROPOSED
a. Design the internal layout of dwellings to:	
- accommodating a variety of furniture arrangements,	The design of the proposed units optimises the internal layouts and allows flexibility of the activities and living uses with the units.
- providing for a range of activities and privacy levels between different spaces within the dwelling,	
- utilising flexible room sizes and proportions or open plans,	
- ensuring circulation by stairs, corridors and through rooms is planned as efficiently as possible thereby increasing the amount of floor space in rooms.	
a. The back of the kitchen should be no more than 10m from a window.	Kitchen back walls are located less than 10m from a window.
Storage	
CONTROLS	PROPOSED
a. In addition to kitchen cupboards and bedroom wardrobes, provide accessible storage facilities at the following rates:	Storage is provided in the basement.
- studio 3m3	
- one-bedroom 3m3	
- two-bedroom 4m3	
- three plus bedroom 5m3	
b. The above minimum storage areas shall be excluded from dwelling size calculations.	Note.
c. Locate storage conveniently for dwellings.	Storage is conveniently located.

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TABLE 7 - CHECKLIST OF DCP 2008 SECTION A1 PLANNING CONTROL (EXTRACTS)

Internal Circulation	
CONTROLS	PROPOSED
a. Limit the number of units accessible from a single core/corridor to eight.	Each unit is provided with individual access.
b. Increase amenity and safety in circulation spaces by;	
c. providing generous corridor widths (preferred min. 2.5m) and ceiling heights (preferred min. 2.7m), particularly in lobbies, outside lifts and apartment entry doors,	1.5m corridors minimum open to a three storey atrium.
d. providing appropriate levels of lighting, including the use of natural daylight,	Adequate lighting will be available including the use of natural light.
e. minimising corridor lengths to give short clear sight lines.	Clear sight lines are available along the corridors.
DESIGN CONTROL 9 – External Building Elements	
Fences and Walls; Front, Side and Rear	
CONTROLS	PROPOSED
a. Front and return fences are to reflect the design of the dwelling.	The proposed front fence will complement the main building.
b. Front and return fences and walls are to be constructed of materials compatible with the house and with other fences and walls within the streetscape.	The proposed front fence will utilise colours and material of the main building.
c. Return fences are to be the same height and design as front fences.	The proposed front fence is compatible with the height of other fences in the locality.
d. Front and return fences can be up to maximum height of 1.5m high with a maximum solid fence height of 600mm, above the solid wall the fence is to have a min. openness ratio of 60%.	The proposed front fence has a maximum height of 1.5m with a solid height of 600mm.
e. Front and return fences may be solid up to 1.5m if located on an arterial road.	Not Applicable.
f. No Colorbond or timber paling for front or return fences, except were integrated into a design theme that is consistent with the character of the dwelling and streetscape and incorporates appropriate articulation to allow for landscaping.	Not Applicable.
g. Fences and walls are not to impede the natural flow of stormwater runoff.	The proposed fences will not impede the natural flow of stormwater runoff.
h. If located in a bushfire prone area fences and walls are to comply with AS3959 and Planning for Bush Fire Protection 2006, as amended from time to time.	The proposed fence is to be constructed of non-combustible materials and will comply with Planning for Bushfire Protection 2006 and AS3959.
i. A solid front wall may be higher than 0.9m where the topography means a retaining wall is necessary. The height of the retaining wall is to be minimised and is to be compatible with the positive characteristics of the existing streetscape.	Not Applicable.
j. Fencing is not to obstruct water meter reading.	Access will be available for water and electricity meter reading.

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TABLE 7 - CHECKLIST OF DCP 2008 SECTION A1 PLANNING CONTROL (EXTRACTS)

Side and Rear Fences	
CONTROLS	PROPOSED
a. Side fences are measured from behind the building line to the rear boundary. Maximum fence height of 2.0 metres.	The Application Plans show a 1.8m high timber side fence.
a. No chain wire fences are to exceed 1.2m in height.	Not Applicable.
b. May include timber paling, metal or Colorbond material.	The Application Plans show a 1.8m high timber side fence.
c. For tennis courts or other similar areas, chain wire fences shall be black or dark green plastic coated mesh. Solid fences enclosing these facilities shall not be permitted over 3.6m and shall be a min. off the side boundaries of 600m and off any front boundary by 1m.	Not Applicable.
d. Fences and walls are not to impede the natural flow of stormwater runoff.	The side fence will not impede the flow of stormwater.
e. Controls for front fences and walls also apply to secondary street frontages on corner lots measured for the length of the dwelling.	Noted.
Roofs, Dormers and Skylights	
CONTROLS	PROPOSED
a. Relate roof design to the desired built form by:	The proposed development will provide an interesting roof form including a fabric atrium roof and a "green roof" over the majority of the roof level.
- articulating the roof,	
- providing eaves,	
- using a compatible roof form, slope, material and colour to adjacent buildings; and	
- ensuring the roof height is in proportion to the wall height of the building.	
b. The main roof is not to be a trafficable terrace.	The roof will contain private open space terraces accessible from each of the individual upper floor units.
c. Skylights are:	Not Applicable.
- not to reduce the structural integrity of the building or involve structural alterations,	
- to be adequately weatherproofed,	
- to be installed to the manufacturer's instructions.	
Elevations Visible from the Public Domain	
CONTROLS	PROPOSED
a. Design important elements such as front doors and building entry areas to have prominence in the building elevation and to be clearly identifiable from the street.	The proposed pedestrian entry to the site is easily identifiable from the public domain.
b. Use proportions, materials, windows and doors types that are residential in type and scale.	The windows and doors are residential in type and scale.
c. Design elevations to reflect the orientation of the site using elements such as sun shading, light shelves and bay windows as environmental controls.	The design of the building elevations reflect the site orientation and incorporate elements to optimise solar access.

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TABLE 7 - CHECKLIST OF DCP 2008 SECTION A1 PLANNING CONTROL (EXTRACTS)	
d. Coordinate and integrate building services, such as drainage pipes, with overall elevation and balcony design.	Building services are concealed within the building design.
e. Coordinate grills/screens, ventilation louvres, carpark entry doors with the elevation.	Grills/screens, ventilation louvers and the car park entry door is integrated in the design of the elevation.
f. Integrate the design of garage entries with the building elevation design.	The car park entry door is integrated in the design of the elevation.
Corner Building Elevations	
CONTROLS	PROPOSED
a. Corner building (buildings with two street frontages) elevations are to reflect the architecture, hierarchy and characteristics of both streets.	The building design provides effective presentation to both street frontages which is consistent with contemporary coastal architecture which is desirable in the area.
b. Building elevations on corner sites are to be oriented to both streets by having windows and doors addressing both streets.	The proposal provides an appropriate presentation and articulation to both frontages.
c. Landscaping, fence and wall treatments on the secondary street frontage are to be similar to the primary street frontage for the length of the building.	The landscape design has been developed to effectively relate to the proposed building and the characteristics of the surrounding area.
Awnings, Canopies, Pergolas, Storm Blinds, Sails and Signage	
CONTROLS	PROPOSED
<i>Awning on commercial main streets</i>	
a. For the commercial component of Shop-top Housing and Shop-top Residential Flat Buildings provide awnings along the commercial main street.	Not Applicable.
b. Awnings are to provide adequate protection from sun and rain.	Not Applicable.
<i>Residential components of the building</i>	
c. Awnings are to follow the general alignment and pattern of existing awnings in the street and complement the height, depth and form of the desired character or existing pattern of awnings.	Not Applicable.
d. Awnings are to enhance pedestrian safety by providing under-awning lighting.	Not Applicable.
e. Awnings, canopies and storm blinds are to be wholly within the lot boundaries at least 900mm from the site boundaries.	Not Applicable.
f. Must observe and maintain existing building line setbacks.	Not Applicable.
g. If erected in a bushfire prone area, they are to comply with the requirements of AS3959 and Planning for Bushfire Protection 2006.	Not Applicable.
h. Pergolas must not be located closer to a boundary than 900mm.	Not Applicable.
i. Ensure that signage provides clear and legible way-finding for residents and visitors.	Not Applicable.

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TABLE 7 - CHECKLIST OF DCP 2008 SECTION A1 PLANNING CONTROL (EXTRACTS)

Minor Elements	
CONTROLS	PROPOSED
a. Air Conditioning Units	Air conditioning condensers are to be located in the basement.
- Noise levels from air conditioning units are not to exceed 5dB(A) above ambient background noise levels measured at the property boundary.	
- Air conditioning unit installation must not reduce the structural integrity of the building.	
- Openings created by the installation of air conditioning units must be adequately weatherproofed.	
- Air conditioning units are not to be visible from streets.	
b. Aerials, antennae, microwave antennae are to be:	Aerials and antennae will be shared where possible.
- for domestic use only,	
- a maximum of one per single dwelling house,	
c. Ground mounted satellite dishes are to be:	Not Applicable.
- a maximum height of 2.4 metres,	
- limit of one per dwelling house on lots less than 5,000 square metres,	
- located so as not to be visible from a public place,	
- a minimum of 900mm from a property boundary.	
d. Roof Mounted satellite dishes are to be:	Not Applicable.
- suitably coloured to blend in with the building,	
- structurally stable,	
- one per dwelling house on lots less than 5,000 square metres,	
- No higher than the ridge line	
e. Barbeque areas are to be:	Complies.
- used for domestic purposes only,	
- no closer than 900mm to a property boundary,	
- located in the rear yard or no closer to the front of the property than 900mm behind the buildings front elevation,	
- located with consideration to the impact upon adjoining properties.	
f. Aviaries are to be:	Not Applicable.
- used for domestic purposes only,	
- located no closer than 10 metres from a dwelling house on any adjoining property,	
- located in the rear yard and not closer than 900mm to an adjoining property boundary measured to any part of the building,	

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TABLE 7 - CHECKLIST OF DCP 2008 SECTION A1 PLANNING CONTROL (EXTRACTS)	
- structurally sound.	
f. Clothes hoists/lines are to be:	Clothes dryers are to be used in each unit.
- located in the rear yard or no closer to the street than the front elevation of the building,	
- if located on the side of the dwelling they are to be screened from view from all dwellings and the street.	
g. Flagpoles are to be:	Not Applicable.
- structurally sound,	
- wholly within the property boundary.	
h. Letterboxes:	Letterboxes are located adjacent to the main pedestrian entry.
- are to be a maximum height of 1.2m above the ground,	
- are to have street numbering corresponding with that allocated to the dwelling,	
- are to be structurally sound,	
- are to be designed as part of the building and its landscaping using similar materials and finishes,	
- in multi-dwelling developments letterboxes must be located on common property; be contained in one structure, contain sufficient boxes, one for each dwelling, including one for the body corporate.	
i. Outdoor security lighting is to be located and designed:	Complies.
- so as to avoid light spill into the living and sleeping areas of the dwelling,	
- to confine light spill to the source property.	
DESIGN CONTROL 10 – Building Performance	
Energy Efficiency	
CONTROLS	PROPOSED
a. Developments are to obtain BASIX certification where required.	BASIX certificates are provided at Annexure 9 .
Waste Management	
CONTROLS	PROPOSED
a. Any application for development that involves the demolition of existing structures is to provide a Demolition work plan in accordance with the provisions of AS2601 and Councils work plan requirements.	A Demolition Work Plan is required and will be provided with the Construction Certificate Application.
b. Excavation that will result in waste material having to be transported off-site must be minimised through the use of site response building design. Where practical excavated material should be reused on-site.	Noted.

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TABLE 7 - CHECKLIST OF DCP 2008 SECTION A1 PLANNING CONTROL (EXTRACTS)

Water Conservation	
CONTROLS	PROPOSED
a. All developments are to obtain BASIX certification where required and comply with the relevant requirements of the Building Code of Australia.	BASIX Certificates are provided at Annexure 9 .
DESIGN CONTROL 11 – Floor Space Ratio (FSR)	
CONTROLS	PROPOSED
a. Shop-top housing and Shop-top Residential Flat Buildings 2:1 maximum FSR.	Not Applicable.
b. Residential Flat Buildings is 1.2:1 maximum FSR.	Proposed 3486m ² (1.24:1). The additional 0.04:1 of FSR equates to 112m ² of GFA, which is a result of the generous atrium foyer (included at ground level). The slight variation to the FSR control is considered to be justified by the architectural merit of the design and the fact that the additional FSR is not contributing to additional dwelling density.

In summary the proposal substantially complies with the requirements of Tweed DCP 2008, Section A1.

4.4.2 Tweed Development Control Plan 2008, Section A2 – Site Access and Car Parking Code

The car parking rates specified by Tweed Development Control Plan 2007 for dwelling houses indicate that on site parking is to be provided in accordance with the **Table 8**.

TABLE 8 – CAR PARKING REQUIREMENTS						
Land Use	Public Transport, Bus Stop Seating	Bicycle Parking	Delivery, Service Vehicle Parking (50% must be truck size)	Resident/ Visitor Parking	Staff Parking	Customer Parking
Multi- Dwelling Housing (Note Proposed Dual use Tourist and Residential Units are assessed at the higher Residential Rate)	1/15 units	2 per unit	Nil	1 per each one-bedroom unit, 1.5 per two-bedroom unit, and 2 spaces for three or more bedroom units. Plus 1 space per 4 units for visitor parking.	Nil	Nil

The proposed development contains 15 x three bedroom and 3 x two bedroom Multi Dwelling Housing units and 6 Tourist Accommodation units. The tourist accommodation use will be managed and operated off site through letting agents and cleaning will occur when guests are not present, therefore no staff spaces are required.

Accordingly the proposal requires a total of 52.5 (53) car parking spaces. The Code also requires 48 bicycle spaces and 1.6 bus stop seats.

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The proposal provides a total of 54 car parking spaces as shown on the plans at **Annexure 7**. A storage locker is provided for each unit within the basement which will easily provide the required storage of 2 bicycles per residential unit. Tweed Shire Council collects a developer contribution in relation to bus shelters (CP12). Accordingly contributions will be made as part of the approval process prior to the issue of a Construction Certificate.

In summary, it is submitted that the proposal complies with Council's Car Parking Code.

4.4.3 Tweed Development Control Plan 2008, Section A3 – Development of Flood Liable Land

Section A3.9 provides that the adopted design flood level for Bogangar is RL 3.4m AHD and the adopted minimum floor level for residential development is RL 3.7m AHD. The DCP also states that basement car parking is to be protected from the entry of floodwater to a level of 500mm above the design flood level (RL 3.9m AHD).

The subject site has existing ground levels at a minimum of RL 5.6m AHD as indicated on the Plans at **Annexure 3**. Accordingly each unit will be located well above the minimum habitable floor level and the basement car park will be protected in accordance with the subject flood policy.

In terms of probable maximum flooding (PMF), the subject site is located outside of the Tweed Shire Flood Liable Land maps. The DCP proposes an interim PMF level outside of the mapped areas of 2.0 metres above the 100 year ARI flood level. A PMF level of RL 5.4m AHD would be applicable.

Section A3.2.5 b) of the Policy outlines the Emergency Response Provisions for Habitable Developments in areas affected by PMF. The proposed subdivision would be classified as a 'medium and high density accommodation'. A requirement of this Policy is for "all new high/medium density development to have permanent high level road evacuation route(s) to land above PMF level and/or adequate PMF refuge, subject to the recommendations of an acceptable Flood Response Assessment Plan."

The existing surrounding roadways provide suitable high level evacuations routes for the proposed development. Therefore, in accordance with the Council's Development of Flood Liable Land Policy the flood response action for the development is for a 'permanent high level evacuation route' option.

4.4.4 Tweed Development Control Plan 2008, Section A13 – Socio-Economic Impact Assessment

Section A13.5.1 of this Development Control Plan nominates development and land use types for which any Development Application must be accompanied by a formal Socio-Economic Impact Assessment. Development for the purposes of a multi dwelling housing or tourist accommodation development creating more than fifty units is included in Section A13.5.1 and therefore a formal Socio-Economic Impact Assessment is not required as this project only involves 24 units. In addition, as this is a Major Project Application, a Socio-Economic Impact Statement is not required.

4.4.5 Tweed Development Control Plan 2008, Section B19 – Bogangar/Cabarita Beach Locality Plan

Under the provisions of this Plan, the subject lands falls within the Residential Tourist Precinct.

The objectives of this Precinct include retaining the amenity for adjacent residential areas and users of nearby recreation areas, ensuring that appropriate density of development is retained and that any tourist development is contained within the bounds of the precinct, ensuring consolidation of tourist accommodation uses.

This project involves a total of 24 units including 6 tourist units. The proposed development is entirely consistent with the 12m building height limit contained within the DCP and the general building controls of the residential design guidelines. Appropriate landscaping is also proposed as identified in the Landscape Concept Plans at **Annexure 10**.

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It is submitted that the proposal is consistent with the Precinct objectives. The Plan also provides for preferred outcomes and requires that proposals are consistent with them. Those preferred outcomes include:

- The vision for Bogangar/Cabarita Beach.

The vision for Bogangar/Cabarita Beach is:

"To retain and enhance the unique natural environmental character and coastal lifestyle offered by Bogangar/Cabarita Beach, whilst embracing high quality development promoting the area as a popular location for residential living, tourism and business."

Given the site specific designation of "Residential Tourist Precinct" and the proposal's compliance with the controls of the DCP, it is submitted that the proposal will be entirely consistent with the character and the vision for Bogangar.

- The Development Design Guidelines stipulated within Clauses B19.15 and B19.16 of the Plan.

Section B19.15 contains residential design guidelines and Section B19.16 relates to building heights. The proposed development is entirely consistent with the 12m building height limit contained within the DCP and the general building controls of the residential design guidelines.

In summary, it is concluded that the proposal is consistent with the provisions of the Bogangar/Cabarita Beach Locality Plan.

4.5 Legislation and Policies

4.5.1 North Coast Urban Planning Strategy, 1995

Under the provisions of this Strategy, the site is identified as a "committed urban area". Development of the site for residential purposes is consistent with the provisions of this Strategy.

4.5.2 Tweed Shire Council Residential Development Strategy, 1991

Figure 12 of this Strategy includes the development site as a residential development area.

4.5.3 Far North Coast Regional Strategy, 2006 – 2031

The Strategy was adopted by the Minister on 17 January 2007. The site is identified as existing urban on Sheet 1 of the Town and Village Growth Boundary Map contained in the Strategy. The project is therefore consistent with the Strategy.

4.5.4 Tweed 2000+ Strategic Plan and Tweed Strategic Plan 4/24

Following lengthy community consultation, Tweed Shire Council adopted the Tweed 2000+ Strategic Plan in December 1996.

Insofar as the Tweed Strategic Plan 2004/2024 (adopted by Council September 2004) is concerned, Section 1 indicates that the Tweed 04/24 is a new whole of Shire whole of Council Strategy to replace the Tweed Shire 2000+ Strategic Plan prepared a decade ago. It sets forward directions for the next two decades and provides a framework for more detailed plans and policies. The previous Strategic Plan (Tweed 2000+) was heavily concerned with managing urban expansion. The Tweed 04/24 retains the framework of the Tweed 2000+ Strategic Plan but places greater emphasis on sustainability and locality planning.

Table 9 summarises and comments on the key provisions of this Strategic Plan.

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TABLE 9 – TWEED STRATEGIC PLAN 4/24		
ELEMENT	STRATEGY	COMMENTS
Sustainability	Retain the special character of the Tweed. Sustainability as an overarching, guiding principle for all decision-making. Introduce sustainability indicators and a new annual 'State of the Shire' report.	The proposed development complies with BASIX requirements in terms of energy efficiency and water consumption.
Triple Bottom Line	Balance economic, social and environmental objectives. A leadership role for Council in tackling the full range of issues facing the Tweed.	It is considered that this project achieves the objectives of this element in that it will deliver a range of housing types to satisfy continuing growth and demand for housing and tourist accommodation in this locality. The project also incorporates contemporary environmental management and impact mitigation measures and ensures that all necessary social infrastructure is provided (or contributions in lieu paid) for a development of this type.
Community Values	Reflect the needs and values of the existing community. Safeguard quality of life and the character of towns and villages. Stability and consistency in policies and decision-making. Effective community involvement in planning.	The character of the existing area has been identified and the design, density and layout of the proposed building are compatible with the desired future character as expressed by the Bogangar/Cabarita Beach Locality Plan and urban form of the locality.
Economic Growth	A concerted program to generate more local jobs, tackle youth unemployment, offset the decline in rural industries, and balance the population mix by attracting residents in the 30-55 age groups. Link economic growth to education and to the Tweed's environmental quality.	The project will implement the Government's Far North Coast Regional Strategy and provide jobs during the construction and operational phase.
Environmental Quality	Continued improvements in environmental management, including establishment of a Regional Open Space System. Strengthen coastal zone management.	The development footprint will not impact on existing areas of native vegetation and threatened species will also be conserved. Appropriate management measures are planned to mitigate potential adverse impacts and contributions will be paid by way of Section 94 towards the regional open space system.
Water Resources	Conserve water resources. Maintain and improve water quality in rivers and estuaries. Complete Integrated Water Cycle Management Study and promote use of recycled and 'grey' water. Upgrade Clarrie Hall dam.	Stormwater management measures during both the construction and operational phases will be implemented to ensure that water quality objectives are achieved. Each unit will be fitted with water efficient devices and rainwater will be collected for use in landscaping and the swimming pool.

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TABLE 9 – TWEED STRATEGIC PLAN 4/24		
ELEMENT	STRATEGY	COMMENTS
Rural Change	A 'Rural Partnership' to address problems associated with the decline of rural industries. A Rural Settlement Strategy to guide rural subdivision and expansion of villages, consistent with protecting landscape values.	Not applicable.
Social Support	A new Social Plan. Greater emphasis on the needs of the elderly, disabled, youth and Indigenous people. A stronger framework for social planning and integrated provision of community services.	Development of this site as proposed is not inconsistent with Council's social objectives insofar as it implements the Tweed Residential Development Strategy 1991 and the Far North Coast Regional Strategy 2006-2031. It will provide a range of housing choices together with all normal urban infrastructure required by a project of this type.
Housing Affordability	New measures to provide more housing for both purchase and rental within the reach of lower and middle income groups.	The project involves a range of unit sizes to enable housing choice and greater affordability to be provided for prospective purchasers.
Urban Development	Implement current plans for urban expansion including Cobaki and Bilambil Heights. Complete assessments of Terranora 'Area E' and Kings Forest. Retain green belts or buffers between settlements.	The project is entirely consistent with this provision as it implements Council's 1991 Residential Strategy.
Land Use Structure Plan and Urban Design Framework	A new Structure Plan to set out more detailed proposals for urban and rural land use. Revised guidelines to promote the highest possible standards of urban and landscape design.	It is understood that Council has not completed this Structure Plan.
Infrastructure	A new Tweed Community Infrastructure Program and other measures to ensure adequate provision of infrastructure to both new and existing areas. Minimise the cost to government of servicing new development.	It is understood Council has not completed the new Community Infrastructure Program.
Locality Plans	Detailed plans for local areas prepared in conjunction with the community to guide physical, economic and social development, environmental management, infrastructure and services.	The proposal is consistent with the Tweed Development Control Plan 2008, Section B19 – Bogangar/ Cabarita Beach Locality Plan. This Plan is addressed at Section 4.4.5.
Partnerships	Council to form partnerships with government agencies and other parties to tackle priority issues eg. Tweed Heads revitalisation. Expert Advisory Panels to help implement key components of the strategy	Not applicable.

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TABLE 9 – TWEED STRATEGIC PLAN 4/24		
ELEMENT	STRATEGY	COMMENTS
Regional Links	Closer integration with planning for the Gold Coast and South East Queensland. Continued involvement with the Northern Rivers Region and Premier's Department coordination group.	Not applicable.
Council Management	Strategic Directions and Four Year Priorities to be pursued through Council's Management Plan and budget. Further adjustments where necessary to Council's organisation structure.	Not applicable.

4.5.5 Threatened Species Conservation Act, 1995

The Flora and Fauna Assessment at **Annexure 15** addresses relevant threatened species under the Threatened Species Conservation Act, 1995 and generally concludes that subject to certain mitigation measures, the project will not impact significantly on threatened species. Details of mitigation measures are provided in Section 8.9.

4.5.6 Native Vegetation Act, 2003

Section 5 of this Act provides that the Act does not apply to land described in Part 3 of Schedule 1. Schedule 1, Part 3, Paragraph 14 provides that land within a zone designated "residential" under an Environmental Planning Instrument is excluded from the operation of the Act.

The site is zoned 2(e) Residential Tourist and therefore this Act does not apply.

It should also be noted that Section 75U of the Environmental Planning and Assessment Act provides that an authorisation referred to in Section 12 of the Native Vegetation Act, 2003 does not apply to a Major Project Application.

4.5.7 Roads Act, 1993

Section 138 of this Act requires approval to be obtained for certain works and access connections to a public road. However, Section 75V of the Environmental Planning and Assessment Act provides that an approval under Section 138 must be consistent with any Part 3A approval granted by the Minister.

The proposal will include removal of existing crossovers to Tweed Coast Road and Cypress Crescent and the installation of a new driveway crossover to Cypress Crescent.

4.5.8 Rural Fires Act, 1997

This Act requires an Authority from the Rural Fire Service for certain development types including tourist accommodation uses as a "Special Fire Protection Purpose". This form of development would normally also be integrated development under the provisions of Section 91 of the Environmental Planning and Assessment Act. However, Section 75U provides that a Bushfire Safety Authority under Section 100B of the Rural Fires Act is not required in respect of a Major Project Application. The land is mapped as bushfire prone and a Bushfire Threat Assessment Report accompanies the application at **Annexure 12**.

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4.5.9 Water Management Act, 2000

Groundwater was encountered at approximately 4.4m to 4.8m below the existing surface level across the site. The proposed development will not require dewatering during construction.

Section 75U of the Environmental Planning and Assessment Act provides that a Water Use Approval under Section 89, a Water Management Work Approval under Section 90 or an Activity Approval under Section 91 of this Act is not required in respect of a Major Project Application.

4.5.10 Commonwealth Environmental Protection and Biodiversity Conservation Act, 1999

The advice from James Warren and Associates dated 20 May 2010 at **Annexure 15** concludes that the proposed development does not give rise to a requirement for any approvals under the Commonwealth Environmental Protection and Biodiversity Conservation Act, 1999.

4.5.11 Development Contributions

Tweed Shire Council has adopted a number of Shire wide Section 94 Contribution Plans which may apply to the project. In addition, Council has adopted Water and Sewer Headworks Charges for the Tweed Local Government Area.

Table 10 summarises the development contributions applicable to the development. Note that the dual use tourist and residential units are to be levied at the higher residential rate.

TABLE 10 – CONTRIBUTIONS (SECTION 94 PLANS)			
PLAN NO.	PLAN NAME	QUANTUM OF CONTRIBUTION	PURPOSE
4	Tweed Road Contribution Plan Sector 7	Per Multi Dwelling Housing Unit \$3724.50 <i>Note that a credit of \$2368.40 applies per existing caravan site.</i>	This Plan enables the Council to collect contributions towards upgrading of the distributor road network to accommodate additional traffic resulting from population growth and urban expansion.
5	Open Space Contributions (Structured) Open Space Contributions (Casual)	Per 2 Bed Multi Dwelling Housing Unit \$427.00 And \$373.00 Per 3 Bed Multi Dwelling Housing Unit \$528.00 And \$460.00 <i>Note that a credit of \$285.00 applies per existing caravan site for Casual Open Space and \$312.00 for Structured Open Space (assuming 1.3 persons per site equivalent 1 bed unit).</i>	This Plan enables Council to collect contributions for the acquisition and embellishment of structured open space (playing fields) and casual open space (local parks) where dedication and embellishment on site is not appropriate and not consistent with Council's normal policy, as is the case with this project.
11	Library Facilities	Per 2 Bed Multi Dwelling Housing Unit \$561.00 Per 3 Bed Multi Dwelling Housing Unit \$693.00 <i>Note that a credit of \$429.00 applies per existing caravan site (assuming 1.3 persons per site equivalent 1 bed unit).</i>	This Plan enables the Council to levy contributions towards the cost of upgrading and improving existing library facilities at Tweed Heads, Murwillumbah and Kingscliff.
12	Bus Shelters	Per 2 Bed Multi Dwelling Housing Unit \$43.00 Per 3 Bed Multi Dwelling Housing Unit \$53.00 <i>Note that a credit of \$33.00 applies per existing caravan site (assuming 1.3 persons per site equivalent 1 bed unit).</i>	This Plan enables Council to levy contributions towards the cost of constructing public bus shelters on roads and streets in accordance with normal Surfside Bus route requirements.

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TABLE 10 – CONTRIBUTIONS (SECTION 94 PLANS)			
PLAN NO.	PLAN NAME	QUANTUM OF CONTRIBUTION	PURPOSE
13	Eviron Cemetery/Crematorium Facility	Per 2 Bed Multi Dwelling Housing Unit \$85.00 Per 3 Bed Multi Dwelling Housing Unit \$105.00 <i>Note that a credit of \$65.00 applies per existing caravan site (assuming 1.3 persons per site equivalent 1 bed unit).</i>	This Plan enables Council to levy contributions towards the cost of providing and expanding the existing Eviron Cemetery and Crematorium facility to meet additional demand generated by population growth.
15	Community Facilities	Per 2 Bed Multi Dwelling Housing Unit \$466.00 Per 3 Bed Multi Dwelling Housing Unit \$575.00 <i>Note that a credit of \$356.00 applies per existing caravan site (assuming 1.3 persons per site equivalent 1 bed unit).</i>	This Plan enables Council to levy contributions towards the cost of providing community facilities to meet additional demand generated by population growth.
18	Council Admin Offices and Technical Support Facilities	Per 2 Bed Multi Dwelling Housing Unit \$1246.60 Per 3 Bed Multi Dwelling Housing Unit \$1539.91 <i>Note that a credit of \$953.28 applies per existing caravan site (assuming 1.3 persons per site equivalent 1 bed unit).</i>	This Plan enables Council to levy contributions towards the cost of alterations and additions to the Council offices at Tweed Heads and Murwillumbah and the Council's Technical Support facilities (Works Depots) to meet the additional demand generated by growth.
22	Cycleways	Per 2 Bed Multi Dwelling Housing Unit \$316.00 Per 3 Bed Multi Dwelling Housing Unit \$391.00 <i>Note that a credit of \$242.00 applies per existing caravan site (assuming 1.3 persons per site equivalent 1 bed unit).</i>	This Plan enables Council to levy contributions towards the cost of providing cycleways in accordance with Council's Cycleway Strategy, throughout the Shire.
26	Shire Wide Regional Open Space (Structured) Shire Wide Regional Open Space (Casual)	Per 2 Bed Multi Dwelling Housing Unit \$2563.00 And \$730.00 Per 3 Bed Multi Dwelling Housing Unit \$3166.00 And \$902.00 <i>Note that a credit of \$558.00 applies per existing caravan site (for Casual Open Space assuming 1.3 persons per site equivalent 1 bed unit).</i>	This Plan enables Council to levy contributions towards the cost of providing a new regional sporting facility at Arkinstall Park, to meet demand for active open space activities in addition to those normally required at sports fields (see Section 94 Plan No. 5). It also levies contributions towards the cost of regional casual open space such as beach foreshore areas, river foreshore areas and the like to meet the demand generated by growth.

Section 64 Headworks Contributions

Sewer

The current contribution is \$5,146.00 per equivalent tenement (ET). The contributions are required to fund conveyance, treatment and disposal of sewerage generated by the project.

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The charges applicable to the uses proposed in the subject development are as follows:

0.75 ET per 2 Bed Multi Dwelling Housing Unit

1.0 ET per 3 Bed Multi Dwelling Housing Unit

Note that a credit of 0.6 ET applies per existing caravan site.

Water

The current contribution is \$10,709.00 per ET. The contributions are required to fund storage, treatment and conveyance of water supply required by the development.

The charges applicable to the uses proposed in the subject development are as follows:

0.6 ET per 2 Bed Multi Dwelling Housing Unit

0.8 ET per 3 Bed Multi Dwelling Housing Unit

Note that a credit of 0.5 ET applies per existing caravan site.

4.5.12 NSW Coastal Policy 1997

The maps accompanying the Coastal Policy indicate that the site falls within the area to which the Policy applies.

Table 2 of the Coastal Policy contains a number of strategic actions relevant to development control. Section 8.2.3 of this Environmental Assessment Report addresses Coastal Policy provisions.

5.0 ENVIRONMENTAL PLANNING AND ASSESSMENT ACT, 1979 (AS AMENDED) OBJECTS

Table 11 identifies the objects of the Act and demonstrates how the project is consistent with those objects.

TABLE 11 – OBJECTS OF THE ENVIRONMENTAL PLANNING AND ASSESSMENT ACT	
OBJECT	COMMENTS
(a) to encourage: (i) the proper management, development and conservation of natural and artificial resources, including agricultural land, natural areas, forests, minerals, water, cities, towns and villages for the purpose of promoting the social and economic welfare of the community and a better environment, (ii) the promotion and co-ordination of the orderly and economic use and development of land, (iii) the protection, provision and co-ordination of communication and utility services, (iv) the provision of land for public purposes,	 The site has been highly modified by urban activities. The site does not have any significant natural values. The proposed development is in accordance with the Residential Tourist zoning of the land. Development of the site in accordance with the Residential Tourist zoning and as proposed in this Environmental Assessment would be entirely consistent with the site's physical capabilities and constraints, relevant statutory planning controls and would achieve compliance with the Far North Coast Regional Strategy, 2006 – 2031. The site will be connected to communication and utility services and will not create any adverse impact upon these services. Section 94 contributions will be payable.

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TABLE 11 – OBJECTS OF THE ENVIRONMENTAL PLANNING AND ASSESSMENT ACT	
OBJECT	COMMENTS
(v) the provision and co-ordination of community services and facilities, and	Section 94 contributions will be payable.
(vi) the protection of the environment, including the protection and conservation of native animals and plants, including threatened species, populations and ecological communities, and their habitats, and	The site is highly urbanised and does not contain any significant vegetation. Impacts on the environment will be minimal.
(vii) ecologically sustainable development, and	The site is highly urbanised and does not contain any significant vegetation. The building will comply with BASIX water and energy efficiency standards.
(viii) the provision and maintenance of affordable housing, and	The layout provides for a range of dwelling types and is consistent with affordable housing objectives.
(b) to promote the sharing of the responsibility for environmental planning between the different levels of government in the State, and	The Minister for Planning is the consent authority for this Major Project Application and Tweed Shire Council has been consulted in preparing this Environmental Assessment Report.
(c) to provide increased opportunity for public involvement and participation in environmental planning and assessment.	The application will be advertised and notified by the Department of Planning.

6.0 MATTERS OF NATIONAL ENVIRONMENTAL SIGNIFICANCE

The relevant matters of National environmental significance have been addressed in **Annexure 15**. The Environment Protection & Biodiversity Conservation (EPBC) Act (1999) was passed by Commonwealth Parliament in June 1999 and came into force on 16 July, 2000. A person must not, without an approval under the Act, take an action that has or will have, or is likely to have, a significant impact on a matter of National Environmental Significance (NES).

These matters are listed as:

- (a) the world heritage values of a declared World Heritage property;
- (b) the ecological character of a declared Ramsar wetland;
- (c) a threatened species or endangered community listed under the Act;
- (d) a migratory species listed under the Act; or
- (e) the environment in a Commonwealth marine area or on Commonwealth land.

The Act also prohibits the taking, without an approval under the Act, of:

- (a) a nuclear action; or
- (b) an action in a Commonwealth marine area or on Commonwealth land that has or will have, or is likely to have, a significant impact on the environment.

An action includes a project, development, undertaking or an activity or series of activities. An action does not require approval if it is a lawful continuation of a use of land, sea or seabed that was occurring before the commencement of the Act. An enlargement, expansion or intensification of a use is not a continuation of a use.

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Occurrence of Matter of NES on Subject Site

A Commonwealth Assessment will be required for proposed activities on the subject site if they affect a matter of NES.

There are no declared World Heritage Areas or Ramsar Wetlands in the Locality, Study area or Subject site.

Listed Threatened species

No Commonwealth listed flora species or endangered ecological communities were recorded on the site.

One (1) Commonwealth listed threatened fauna species, Grey-headed flying-fox (*Pteropus poliocephalus*) (Vulnerable) - was considered to potentially occur on the site over time.

Listed Migratory Species

Listed migratory species in NSW are considered predominantly in the Japan-Australia Migratory Bird Agreement (JAMBA) and China-Australia Migratory Bird Agreement (CAMBA).

No migratory species as listed within schedules of the EPBC Act (1999) were recorded on site or considered as possible occurrences on site.

Assessment against EPBC Act Principal Significant Impact Guidelines

The Assessment against the EPBC Act is made using Principal Significant Impact Guidelines 1.1 (DEWHA 2009). The Guidelines outline a self assessment process to assist in determining whether an action should be referred to the Department of Environment Water Heritage and the Arts (DEWHA) for a decision on whether Commonwealth assessment and approval is required under the Act. The following section is an assessment of the proposed development (the action) against these guidelines.

Vulnerable Species

Significant Impact Criteria

An action is likely to have a significant impact on a vulnerable species if there is a real chance or possibility that it will:

- lead to a long term decrease in the size of an important population of a species;
- reduce the area of occupancy of an important population;
- fragment an existing important population into two or more populations;
- adversely affect habitat critical to the survival of a species;
- disrupt the breeding cycle of an important population;
- modify, destroy, remove or isolate or decrease the availability or quality of habitat to the extent that the species is likely to decline;
- result in invasive species that are harmful to a vulnerable species becoming established in the vulnerable species' habitat;
- introduce disease that may cause the species to decline; or
- interfere substantially with the recovery of the species.

Assessment of Proposed Action

One (1) fauna species, listed as vulnerable within schedules of the EPBC Act (1999), was recorded from the subject site.

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It is considered that the proposed development will not result in any of the above listed impacts on the Grey-headed flying-fox.

It is considered that the subject site does not support an important population of any species listed in the EPBC Act (1999) and a significant impact on these species will not be incurred.

Requirement for Commonwealth Referral

Based on the assessment provided above, referral to the Commonwealth Department of Environment Water Heritage and the Arts (DEWHA) is not required. The proposed action is unlikely to result in a significant impact on any matter of NES. It is concluded that Commonwealth Assessment is not required for the proposed development of the subject site.

7.0 ASSESSMENT OF POTENTIAL IMPACTS AND DRAFT STATEMENT OF COMMITMENTS

Section 8.0 of this Environmental Assessment contains a detailed consideration of the key issues relating to the site and the proposed development.

In particular, issues relating to coastal processes, contamination, acid sulphate soils, bushfire hazards, geotechnical constraints, flooding impacts and cultural heritage issues are addressed in detail. That assessment does not identify any significant constraints on the creation of the proposed mixed use residential and tourist development on the site which is zoned 2(e) Residential Tourist.

The various key issues can be suitably managed and appropriate mitigation measures can be implemented to address potential adverse impacts.

In summary, it is concluded that the project will not have any significant adverse impacts and potential impacts relating to bushfire and provision of appropriate infrastructure are adequately addressed in the Draft Statement of Commitments at Section 7.1.

7.1 Draft Statement of Commitments

The following table comprises a Draft Statement of Commitments designed to manage and mitigate potential adverse impacts during the construction and operational stages.

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TABLE 12 – STATEMENT OF COMMITMENTS					
PROJECT COMPONENT	ENVIRONMENTAL OUTCOME (COMMITMENT)	MEASURE (COMMITMENT)	PURPOSE OF MEASURE	TIMING FOR COMPLETION	MONITORING AND REPORTING
1. Erosion and Sediment Control (Construction Phase)	1.1 Minimise the escape of wind-borne particles by complying with the Erosion and Sedimentation Control Plan	1.1.1 Minimise disturbance area 1.1.2 Promptly rehabilitate disturbed areas 1.1.3 Regularly water disturbed areas of the site	To ensure that air pollution does not exceed DECC standards.	Ongoing during the construction phase.	Any complaints to be recorded in the Complaints Register and valid claims to be acted on within one hour. Details to be provided in the quarterly Compliance Report.
	1.2 Minimise mobilisation of sediments by complying with the Erosion and Sedimentation Control Plan	1.2.1 Erect sedimentation fences, inlet filters, hay bale barriers and diversion drains in accordance with the Erosion and Sedimentation Control Plan. 1.2.2 The controls shall be maintained during the construction phase and defects liability period.	To ensure that water quality in receiving waters is not decreased in quality by sediment and nutrient loads.	All sediment and erosion control measures to be in place prior to commencing site work or demolition.	Visual monitoring shall be carried out by the Project Manager on a weekly basis and after each storm event. Details to be contained in the quarterly Compliance Report.
2. Site Safety	2.1 Minimise risk of injury to construction workers and members of the public by generally complying with the Safety Management Plan	2.1.1 The principal contractor shall prepare a Health and Safety Plan and submit the Plan to the Project Manager for approval. The contractor shall comply with the approved Plan.	To ensure that Occupational Health and Safety Act 2000, Occupation Health and Safety Regulation 2001 and relevant Codes of Practice are complied with.	Prior to commencing any work on the site.	Monitoring and reporting incidents to be recorded in the Incident Register and details to be included in the quarterly Compliance Report. Workcover to be notified in appropriate circumstances.
		2.1.2 The principal contractor shall prepare a Traffic and Pedestrian Plan for approval by the Project Manager.	To ensure that traffic and pedestrian management during the construction phase complies with the RTA Traffic Control Worksite Manual and AS1742.3	Prior to commencing work on site.	As above.
3. Demolition	3.1 Minimise the risk of exposure to asbestos material during the demolition and removal of the existing buildings.	3.1.1 The principal contractor shall ensure that demolition personnel are appropriately qualified to remove and dispose of asbestos material.	To ensure that asbestos containing material is removed in accordance with NSW Workplace Health and Safety Act and relevant NSW Workcover requirements.	Prior to commencing demolition work on site.	Monitoring and reporting incidents to be recorded in the Incident Register and details to be included in the quarterly Compliance Report. Workcover to be notified in appropriate circumstances.

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TABLE 12 – STATEMENT OF COMMITMENTS					
PROJECT COMPONENT	ENVIRONMENTAL OUTCOME (COMMITMENT)	MEASURE (COMMITMENT)	PURPOSE OF MEASURE	TIMING FOR COMPLETION	MONITORING AND REPORTING
4. Acid Sulphate Soil	4.1 Minimise disturbance of acid sulphate soils by limiting excavations in accord with Acid Sulphate Soils Assessment, Border Tech, September 2009	4.1.1 Comply with the provisions of the Acid Sulphate Soils Manual (ASSMAC, 1998) and prepare an Acid Sulphate Soil Management Plan if excavation is required more than 4.5m below the existing surface levels in which case additional acid sulphate soil testing will be required.	To ensure that significant volumes of acid sulphate soils are not disturbed.	During the excavation phase.	Project Manager to monitor excavation and address compliance in the quarterly Compliance Report.
5. Construction of Subdivision	5.1 Minimise noise, dust and vibration and amenity impacts by generally complying with the Construction Management Plan and the Safety Management Plan to be prepared prior to construction commencing.	5.1.1 Limit work hours to 7.00am to 6.00pm Monday to Saturday. 5.1.2 Limit noise levels to 5dBA above background at the nearest residential receivers.	To mitigate adverse construction impacts.	During construction.	Project Manager to address compliance in quarterly Compliance Report.
6. Landscaping and Embellishment	6.1 Achieve improved aesthetics and useability of the site.	6.1.1 Carry out the embellishment and landscaping works in accordance with Landscape Concept Plan	To soften the appearance of the building and hardstand areas and provide a more attractive pedestrian environment and car parking area.	Prior to the issue of an Occupation Certificate.	Project Manager to address compliance in quarterly Compliance Report.
	6.2 Soften the visual impact of the future buildings and surrounding hardstand areas	6.2.1 Carry out site landscaping in accordance with the Landscape Concept Plan, Imagine IDG, December 2009.	As above.	Prior to the issue of an Occupation Certificate.	As above.
7. Cudgen Nature Reserve Protection	7.1 Protect the environmental features of the Cudgen Nature Reserve.	7.1.1 Comply with the avoidance, mitigation and compensation measures contained in Section 2.3.3 and 2.6.4 of the Flora and Fauna Assessment James Warren and Associates Pty Ltd March 2010.	To ensure that the environmental features of the Cudgen Nature Reserve is protected and mitigate potential adverse impacts.	Prior to the issue of an Occupation Certificate.	Project Manager to address compliance in quarterly Compliance Report.

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TABLE 12 – STATEMENT OF COMMITMENTS					
PROJECT COMPONENT	ENVIRONMENTAL OUTCOME (COMMITMENT)	MEASURE (COMMITMENT)	PURPOSE OF MEASURE	TIMING FOR COMPLETION	MONITORING AND REPORTING
8. Aboriginal Cultural Heritage	8.1 Avoid disturbing any areas of Aboriginal Cultural Heritage.	8.1.1 Comply with Recommendations 1 to 4 contained in the Cultural Heritage Assessment, Everick Heritage Consultants, November 2009.	To ensure compliance with the National Parks and Wildlife Act 1974.	Ongoing during the construction phase.	Monitoring and reporting incidents to be recorded in the Incident Register and details to be included in the quarterly Compliance Report.
9. Maintaining Asset Protection Zones	9.1 The body corporate of the development to be responsible for maintaining bushfire asset protection zones.	9.1.1 Compliance with the Bushfire Threat Assessment, BCA Check Pty Ltd, September 2009.	To ensure compliance with the Rural Fires Act and Regulations and Planning for Bushfire Protection, 2006.	Ongoing during the operational phase.	Not applicable.
10. Adjacent Land Uses	10.1 To minimise conflicts between the proposed development and adjacent urban and non-urban uses.	10.1.1 Limit construction times to 7.00am to 6.00pm Monday to Saturday 10.1.2 Implement sedimentation and erosion control during the construction phase in accordance with the Erosion and Sedimentation Control Plan.	To minimise conflicts and adverse impacts between potentially incompatible land uses.	Ongoing during construction.	Monitoring and reporting incidents to be recorded in the Incident Register and details to be included in the quarterly Compliance Report.
11. Plans of Development	11.1 The project to be carried out generally in accordance with the Plans of Development prepared by Pat Twohill Designs Pty Ltd.	11.1.1 The proposed development shall be generally in accordance with the approved Plans of Development.	To ensure that the development complies with the approved plans.	Ongoing during construction.	Monitoring and reporting incidents to be recorded in the Incident Register and details to be included in the quarterly Compliance Report.
12. Traffic and Transport	12.1 To ensure that conflict points on the designated road network are minimised.	12.1.1 Remove the existing vehicular crossovers to the Tweed Coast Road and provide a new vehicular crossover to the site from Cypress Crescent.	To ensure that appropriate accessibility and connectivity is provided.	Prior to the issue of an Occupation Certificate.	Monitoring and reporting incidents to be recorded in the Incident Register and details to be included in the quarterly Compliance Report.
13. Water Supply	13.1 Ensure that an adequate potable water supply is provided to the development.	13.1.1 Provide water supply to each unit in accordance with Tweed Shire Council requirements.	To ensure that an adequate potable water supply is provided.	Prior to the issue of an Occupation Certificate.	As required.

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TABLE 12 – STATEMENT OF COMMITMENTS					
PROJECT COMPONENT	ENVIRONMENTAL OUTCOME (COMMITMENT)	MEASURE (COMMITMENT)	PURPOSE OF MEASURE	TIMING FOR COMPLETION	MONITORING AND REPORTING
14. Sewerage	14.1 To provide a reticulated sewer system to the estate.	14.1.1 Provide sewer supply to each unit in accordance with Tweed Shire Council requirements.	To ensure that an adequate reticulated sewer system is provided.	Prior to the issue of an Occupation Certificate.	As required.
15. Contributions	15.1 Ensure that appropriate contributions are paid based on the demands generated by the development.	15.1.1 Payment of relevant Section 94 and Section 64 Contributions.	To achieve the objectives of the Environmental Planning and Assessment Act in relation to the levying of contributions and comply with Tweed Shire Council policies.	Prior to the issue of an Occupation Certificate.	As required.

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8.0 KEY ISSUES

The key issues specified in the Director General's Environmental Assessment Requirements are addressed under the following sub-headings.

8.1 Strategic Planning

Section 4 of the Environmental Assessment provides an assessment of the proposal against the relevant Local, Regional and State planning documents including the Tweed 2000+ Strategic Plan, Tweed Strategic Plan 4/24, Tweed Shire Council Residential Development Strategy 1991, the North Coast Urban Planning Strategy 1995 and the Far North Coast Regional Strategy, 2006 – 2031.

Under the provisions of this Strategy, the site is identified as a "committed urban area". Development of the site for residential purposes is consistent with the provisions of this Strategy.

8.2 Urban Design and Sustainability

8.2.1 Suitability of the Proposal with the Surrounding Area in Relation to Bulk, Scale, Amenity and Visual Amenity

The Site Analysis (**Annexure 4**) along with the analysis accompanying the Application Plans (**Annexure 7**) and the Design Statement (**Annexure 8**) detail the spatial relationship between the subject land and abutting urban and non-urban uses.

To the north of the site is the Cudgen Nature Reserve, which includes a 30m wide managed bushfire asset protection zone as per the Cudgen Nature Reserve Management Plan.

To the east and south of the site are a number of detached dwelling houses on relatively large lots of approximately 700m² to 800m² in area, with frontage to Cypress Crescent.

To the west of the site on land to the west of Tweed Coast Road are detached dwellings and multi dwelling housing provided in townhouse configurations. Other three storey multi dwelling housing and tourist accommodation development is provided in the town centre to the south and also on the south side of Cudgen Lake to the west.

In summary, the area is predominantly characterised in terms of built form by one and two storey detached dwelling houses on residential allotments of one and two storeys in height. Tourist accommodation buildings on similarly zoned land to the south of Cudgen Lake and within the town centre to the south comprise three storey constructions.

The proposed mixed use residential and tourist development comprising three storeys of building height is entirely consistent with the zone objectives which apply to this site and the site specific controls that apply under the Tweed DCP 2008, Section B19 Bogangar/Cabarita Beach Locality Plan.

In addition the proposal will provide a mix of residential and tourist units which are of a high standard of design and amenity. In this respect the proposal is compatible with the established residential character and amenity of the area.

8.2.2 Consistency With Coastal Design Guidelines for NSW

Table 13 contains an assessment that demonstrates the consistency of the proposal with the Coastal Design Guidelines for NSW, February 2003.

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TABLE 13 – COASTAL DESIGN GUIDELINES		
PART	GUIDELINE	COMMENT
PART 1 – HIERARCHY OF SETTLEMENTS		
1.3 – Coastal Villages		
1.	Relationship to the environment.	
a.	The relationship between the village and the coast reinforces: <ul style="list-style-type: none"> - the way in which the settlement sits within the landscape - the visual and environmental dominance of the landscape and surrounding ecological systems - the ecological corridors that surround the settlement. 	The subject site is located on the northern fringe of the existing village of Cabarita Beach within land zoned Residential Tourist 2(e). The proposed development is compatible with the site's opportunities and constraints and does not impact on areas of environmental significance or ecological corridors.
b.	Separation between settlements is maintained by excluding urban development from surrounding rural and natural lands.	The proposed development maintains separation between settlements.
c.	Clear boundaries around the settlement are established.	Clear boundaries are established by existing urban zone limits and by the green belt of the Cudgen Nature Reserve.
d.	New buildings and other urban development are located within the boundaries of the village.	The proposed development is located within the boundaries of the existing village of Cabarita Beach as reflected in the residential tourist zoning of the land.
e.	Land with high ecological, agricultural and visual integrity surrounding the village is protected.	Detailed site analysis relating to acid sulphate soils, geotechnical constraints, visual amenity, flora and fauna and cultural heritage issues have not identified any significant constraints on the subject site which is zoned 2(e) Residential Tourist.
f.	Aboriginal and European places, relics and items are protected.	The Cultural Heritage Assessment at Annexure 11 has not identified any Aboriginal or European places, relics or items on the site.
g.	Total water cycle management and water sensitive, urban design initiatives are implemented.	The proposal includes management measures during the construction and operational phases to ensure that no diminution occurs to the downstream water quality. This issue is addressed in detail at Annexures 20 and 21 .
h.	The settlement's micro-climatic conditions are improved through landscaping and mature trees.	The Landscaping Concept at Annexure 10 proposes landscaping of the site which will achieve a coastal character similar to the existing village.
i.	Development is set well back from areas affected by coastal processes, flooding, erosion and sea level rise.	The site is not subject to coastal erosion processes. Flooding and sea level rise are addressed in the Engineering Assessment at Annexure 18 .
j.	Waste and water services match seasonal tourism influxes.	The availability and adequacy of all normal urban infrastructure is addressed at Annexure 18 . In summary, adequate capacity exists in existing systems.
k.	Invasive plant species are removed from ecological areas.	The subject site does not contain any ecologically significant land.
l.	Bush fire protection and vegetation clearance are balanced to maintain ecological integrity and visual quality.	The Bushfire Threat Assessment at Annexure 12 addresses appropriate asset protection zones and concludes that these can be achieved without the removal of native vegetation.

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TABLE 13 – COASTAL DESIGN GUIDELINES		
PART	GUIDELINE	COMMENT
2. a.	Visual Sensitivity Visual character is critical in coastal villages. New development responds sensitively in form and character to the village and to the existing proportions and materials of existing buildings.	This issue is addressed in the Visual Impact Assessment at Annexure 10 . In summary, the visual impact of the proposal will be minimised by use of effective setbacks and landscape plantings of appropriate species and scale. The materials and design of the building are characteristic of contemporary coastal architecture and is consistent with the character of the area. It is concluded that the proposal will not have a significant impact on the landscape and scenic quality of the locality.
3. a. b. c. d. e.	Edges to the water and natural areas Foreshore access in proximity to primary streets and public places within the village are reinforced. Connection between the village park, other public open spaces, the main street and the foreshore edge is strengthened. Pathways to the foreshore are aligned with existing streets. Along the foreshore reserve and other public open spaces the boundary between public and private land is defined with public streets or pedestrian pathways. Walking tracks and vehicular access points (where appropriate) to the beach and through the dunes are defined.	The subject land has access and frontage to the cleared and managed area of the Cudgen Nature Reserve which extends to the foreshore approximately 100m east of the site. The proposal will not alter public access to the foreshore. Given the scale and infill nature of the development there are no opportunities for connection with other open spaces however normal contributions towards Council's cycleway network will apply. See comments above. The subject land has frontage to the Cudgen nature reserve. Fencing is provided along the northern boundary to the reserve to delineate the separation between private and public land. See comments above regarding Council's cycleway network.
4. a. b. c. d. e. f.	Streets Coastal villages have a range of street types including: ♦ an access road leading from the freeway or highway and passing through the village ♦ a mixed-use main street which is the key economic and social street linking important places in the settlement ♦ streets revealing important views and vistas of and through the settlement to natural features ♦ streets defining public open spaces; parks, squares, conservation areas and the 1:100 year flood line ♦ streets separating natural areas from urban development ♦ streets following the original subdivision pattern ♦ residential streets and laneways ♦ pedestrian and cycle pathways and routes The original street pattern of the village is reinforced. The layout of new streets responds to geographic features. The settlement has an interconnected and permeable system of streets; the central main street is linked to residential blocks and connects places of importance within the settlement. All streets within the settlement are walkable and safe. Pedestrian and cycle access ways follow the streets.	The subject land has frontage to Tweed Coast Road and Cypress Crescent which are existing public roads constructed to a bitumen sealed standard. This application does not require the construction of any new streets it is submitted that this Clause is not specifically relevant. See above. See above. See above. See above. See above.

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TABLE 13 – COASTAL DESIGN GUIDELINES		
PART	GUIDELINE	COMMENT
5.	Buildings	
a.	<p>Development within the village comprises:</p> <ul style="list-style-type: none"> ♦ small-scale development within the natural setting ♦ buildings defining public open spaces within the centre ♦ public buildings within the village centre ♦ small-scale tourism and eco-tourism facilities, residential and tourist/residential development. 	<p>The proposed building is consistent with the zoning and statutory building controls contained in Tweed Local Environmental Plan 2000 (maximum building height three storeys) and the design controls contained in Tweed Development Control Plan 2008, Section A1 – Residential and Tourist Code and Tweed Development Control Plan 2008, Section B19 – Bogangar and Cabarita Beach Locality Plan.</p> <p>The proposed building and landscaping will provide an appropriate scale to provide a focal point at the northern entry to the village along the Tweed Coast Road.</p>
b.	<p>Within the village main street and centre an appropriate mix may contain community, education, retail, commercial buildings, shop-top housing, town houses, detached housing for either residential or tourist uses. These buildings:</p> <ul style="list-style-type: none"> ♦ are oriented towards and address the street ♦ have on-grade, active street level uses on the main street. 	<p>The site is not located in the commercial “main street”.</p> <p>The proposal is located within the 2(e) Residential Tourist zone and comprises residential and tourist units.</p>
c.	<p>Areas surrounding the village centre may have coastal cottages and outhouses, detached houses and project homes. These buildings:</p> <ul style="list-style-type: none"> ♦ address the street and respond to the streetscape in terms of building setbacks, landscaping and parking ♦ have materials, forms and colours that produce cohesion throughout the village as a whole ♦ have adequate and amenable private open space. 	<p>The proposed building is not inconsistent with this requirement in that it provides compliant setbacks, generous landscaping and private open space, compliant car parking and comprises materials and colours that are consistent with contemporary coastal architecture within the village.</p>
6	Height	
a.	The village centre and the main street have a maximum of up to three storeys.	The proposed development is consistent with the statutory and policy height controls applying to the site.
b.	Some elements of important public buildings within the centre may be marginally higher than surrounding buildings.	There are no public buildings in close proximity.
c.	Residential buildings surrounding the centre have a maximum of two storeys.	The proposed development is consistent with the statutory and policy height controls applying to the site.
d.	<p>Heights are subject to place specific urban design studies. New development is appropriate to the predominant form and scale of surrounding development (either present or future), surrounding landforms and the visual setting of the settlement. Buildings avoid overshadowing of public open spaces, the foreshore and beaches in centres before 3.00pm midwinter and 6.30pm summer daylight saving time. Elsewhere avoid overshadowing of public open spaces, the foreshore and beach before 4.00pm midwinter and 7.00pm summer daylight saving time.</p>	<p>The site is within the Residential Tourist Precinct under the Bogangar/Cabarita Beach Locality Plan. Compliance with the Plan is addressed in Section 4.4.5.</p> <p>Buildings will not overshadow the foreshore at the prescribed times given the spatial separation between the site and the foreshore.</p>

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TABLE 13 – COASTAL DESIGN GUIDELINES		
PART	GUIDELINE	COMMENT
PART 2 – DESIGN PRINCIPLES FOR COASTAL SETTLEMENTS		
2.1 – Defining the Footprint and Boundary		
Maintaining a Compact Development Footprint		
2 .	Strategies for development within a settlement centre occur through place-specific urban design plans and development controls. As a minimum this results in working with the existing settlement character to have regard for:	
a.	the public domain, open spaces, streets and heritage	This is an infill development which does not involve the creation of any new streets or open spaces.
b.	the subdivision, block, lot and street pattern and character	The proposal does not involve subdivision. A separate application will be lodged for strata subdivision after completion of the building.
c.	views and visual setting	Views across the site are presently obscured by vegetation around the site edges and the proposed building is only three storeys in height. It is unlikely that the proposal will intercept any significant views across the site.
d.	bulk, scale, height and building type	The proposed building is consistent with the statutory height development standard of Tweed LEP 2000 and the policy height controls and built form of Tweed DCP 2008, Section A1 and Section B19 Bogangar/ Cabarita Beach Locality Plan. Accordingly the proposal is consistent with the intended height, bulk and scale of development for this locality.
e.	extent and location of private open spaces	No private open space is proposed to be dedicated as part of this development given its scale, location and limited opportunities. Contributions will instead be made.
f.	configuration of car parking and driveways	The proposed basement car park and driveway access is well positioned and complies with Council's Codes.
g.	setbacks from the street and from side and rear boundaries	Setbacks of the development comply with Tweed Development Control Plan 2008, Section A1.
h.	landscaping	Details of proposed landscaping are contained in Annexure 10 .
i.	materials and detailing of buildings.	Materials and details include rendered and painted masonry, glass aluminium and timber, which are consistent with other buildings in the locality.
2.2 - Connecting Open Spaces		
Design Guidelines for the Open Space Network		
1.	Locate and connect new and existing open spaces which protect and maintain:	
a.	nature reserves, conservation areas, parklands and environmental protection areas.	The proposal is located adjacent to the Cudgen Nature Reserve. The proposal provides generous setbacks to the reserve and the Flora and Fauna Assessment details measures to protect the reserve.
b.	the natural and rural settling of the settlement including the scenic values of the visual catchment.	The proposed private open space within the development is unlikely to affect the scenic values of the area.
c.	remnant native vegetation.	The site does not contain any significant vegetation.

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TABLE 13 – COASTAL DESIGN GUIDELINES		
PART	GUIDELINE	COMMENT
2.	Establish continuous ecological corridors to incorporate existing remnant vegetation by connecting reserves and conservation areas from the hinterland or surrounding mountains to the coastal edge.	The proposal does not impact on ecological corridors.
3.	Provide setbacks to protect property from the effects of coastal erosion, flooding and bushfire.	The subject site is located well clear of the 100 year coastal erosion line, is located above the design flood level and incorporates appropriate measures to manage the potential bushfire hazard in accordance with the RFS Guideline Planning for Bushfire Protection 2006.
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.	No new open space areas are proposed.
5.	Where feasible preserve settings for places of cultural heritage within the open-space network.	No cultural heritage items exist on or adjacent to the site.
6.	Provide areas within the open-space network sufficient to detain and cleanse stormwater runoff and avoid impacting sensitive ecologies.	Not applicable.
7.	Establish edge open spaces with street and pedestrian pathways. These are best located within the development footprint of the settlement rather than in an open space zone.	Not applicable.
8.	Provide pedestrian and cycle access that: <ul style="list-style-type: none"> 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. 	Contributions are payable towards Council's cycleway network in accordance with the relevant Section 94 Contribution Plan.
9.	Provide a variety of large and smaller open spaces to serve a range of different active and passive recreational roles, eg: <ul style="list-style-type: none"> a. playing fields; b. playgrounds and small pocket parks; c. walking and cycling connections; d. places and activities for people with physical disabilities. 	Not applicable.
10.	Co-locate recreational facilities with shops, schools and other community facilities to reduce parking and minimise walking distances.	Not applicable.
11.	Landscape design of open spaces should reflect the different qualities of the location and their functions.	Not applicable.
2.3 – Protecting the Natural Edges		
Design Guidelines for the Natural Edge		
1.	Define the key characteristics and functions of public spaces along the foreshore with particular regard for sites of significant social and cultural importance.	Not applicable.
2.	Maintain foreshore areas and setbacks in public ownership	This proposal does not impact on existing foreshore areas to the east.
3.	Ensure that existing and remnant native vegetation is protected through generous setbacks and defined points of access.	The site does not contain any significant vegetation.

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TABLE 13 – COASTAL DESIGN GUIDELINES		
PART	GUIDELINE	COMMENT
4.	Provide pedestrian access to and along the foreshore with provision for those with less mobility.	Pedestrian access to and along the foreshore will not be impacted by the proposal.
5.	Avoid the remodelling of foreshore areas to ameliorate coastal processes by buildings or other structures.	As above.
6.	In new areas provide edge roads (or unformed pedestrian pathways) between all urban areas, foreshore reserves and orient streets to provide:	No new roads are proposed as the site fronts an existing public street.
a.	direct pedestrian access to the foreshore	
b.	views to the foreshore as well as distant views and vistas.	
7.	Define clear pedestrian and vehicular entry points and access routes through the foreshore reserve to reduce the impact of traffic through dunes, coastal vegetation and other fragile areas.	The site does not have frontage to the foreshore.
8.	Design and locate foreshore facilities such as car parks, toilet blocks and picnic areas to reduce their visual intrusion on the foreshore, view corridors and vistas.	No foreshore facilities are proposed.
9.	Encourage public rather than private jetties and boat facilities.	No jetties are proposed.
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.	No impact on the ecological integrity of the vegetation on the foreshore is likely to occur as no physical development or works are proposed within that locality.
Setbacks		
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.	Generous setbacks are proposed from the northern boundary to the Cudgen Nature Reserve. An additional 30m wide managed APZ is located adjacent to the site.
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.	The site is located landward of the 100 year coastal erosion line.
13.	Setbacks are designed to protect ecosystems and reserves covered under SEPP 14 wetlands, SEPP 26 littoral rainforest, SEPP 44 koala habitat as well as salt-marsh and mangrove communities, riparian vegetation, frontal dunes and headlands, national parks, protected areas and reserves.	The site is well removed from coastal wetlands and littoral rainforests and there is no SEPP44 Koala habitat in the locality. Generous setbacks are proposed from the northern boundary to the Cudgen Nature Reserve. An additional 30m wide managed APZ is located adjacent to the site.
14.	For new developments the foreshore setbacks should be at least 50m wide as a precautionary measure where possible.	The site does not have frontage to a public foreshore area.
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.	The site is located on the urban fringe which is well established and is consistent with the zoning of the site. Adequate setbacks are provided from the vegetation within the reserve to the north.
16.	Setbacks for redevelopment should consider a 100 year planning timeframe to address shore line retreat and sea-level rise.	The site is located landward of the 100 year coastal erosion line.
17.	Coastal estuary planning for local areas must detail the issues place-specifically and follow guidelines in the Coastal Zone Management Manual.	The site is not adjacent to a coastal estuary.

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TABLE 13 – COASTAL DESIGN GUIDELINES		
PART	GUIDELINE	COMMENT
18.	Development on frontal dunes is avoided.	Not applicable.
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.	Not applicable.
20.	The design of buildings and other structures adjoining the foreshore complements the function and character of the foreshore.	Not applicable as the site does not abut a coastal foreshore.
21.	Setbacks in public ownership wherever possible, allow opportunities for public access and have limited development including no roads, private allotments, infrastructure and retaining walls in these locations.	Not applicable.
2.4 – Reinforcing the Street Pattern		
Design Guidelines for Reinforcing the Street Pattern		
1	Building on the original and established street and block patterns in terms of the pattern of circulation, access to lots and uses.	The site abuts an existing public street.
The street hierarchy can be strengthened by:		
9.	Protecting the rural and natural character of the main access roads by restricting development fronting onto them.	The proposal will remove an existing driveway from Tweed Coast Road which is a designated road.
11.	Developing public edge roads around the settlement to provide separation between urban areas and sensitive ecologies and open-space areas. This provides asset protection zones for bushfire management and access to open spaces, foreshores and headlands.	No new roads are proposed.
12.	Limiting fast moving through traffic in residential streets.	No new roads are proposed.
14	Establishing a system of pedestrian pathways throughout the settlement and between settlements	Appropriate contributions apply to the Council's cycleway network.
15.	Reinforcing streets with appropriate street vegetation planting.	Landscaping of the site as proposed as indicated in Annexure 10 to the Environmental Assessment Report.
2.5 – Appropriate Buildings for a Coastal Context		
Design Guidelines for Appropriate Buildings in a Coastal Context		
Built Form Guidelines for all Sites		
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 building is located on a prominent corner at the northern entry to the village. The proposed building will provide a significant improvement on the existing situation and will provide an appropriate scale for this location.
3.	Reinforce the desired future character of the settlement.	The proposed building is entirely consistent with the Locality Plan for this area.
4.	Consider the appropriateness of new buildings within the whole streetscape rather than each building as a stand-alone object.	The design of the proposed building and landscaping is appropriate in the streetscape.
5.	Maintain consistent street setbacks and street edge configurations.	The proposal is consistent with the local setback controls.
6.	Ensure buildings address the street by providing direct and on-grade entries to the street for residential, commercial and retail purposes.	The proposal provides appropriate residential access.

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TABLE 13 – COASTAL DESIGN GUIDELINES		
PART	GUIDELINE	COMMENT
8.	Protect views from public places and streets by maintaining consistent setbacks along streets and not placing buildings in view corridors.	The proposal is consistent with the local setback controls and is unlikely to intercept any significant view corridor.
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 and scale with the street and local context	The proposal is consistent with the local setback controls and is unlikely to intercept any significant view corridor.
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.	Appropriate development controls are in place under the various SEPPs, LEP, DCPs and policies which apply to the site.
11.	Ensure development and neighbouring properties have: <ul style="list-style-type: none"> a. access to daylight b. access to natural ventilation c. visual privacy and acoustic privacy d. private open space e. a pleasant micro-climate 	The proposal will provide adequate solar access, ventilation, visual privacy and open space. The proposal will also respect the amenity of the neighbouring property in relation to the amenity issues.
12.	Achieving amenity relates to the design of individual buildings and, in particular to: <ul style="list-style-type: none"> a. building orientation depth; b. the size of the lot; c. open space location, size and connection with the inside of the building; d. car parking location and access; e. pedestrian access from the street; f. street edge configuration and building separation; g. mature trees, vegetation and soil areas. 	<p>The proposed development relates well to the size of the land and complies with the detailed setback controls of Tweed DCP 2008, Section A1. The proposal provides appropriate landscaped open space and provides useful private open space for each dwelling.</p> <p>Basement car parking is provided with the driveway located away from the intersection with Tweed Coast Road to minimise conflict points in proximity to the designated road.</p> <p>Pedestrian access is provided from the street to the central atrium foyer.</p> <p>The building design provides appropriate articulation to the street frontages and the landscape design is functional and complements the scale of the building.</p>
Built Form Design Guidelines for Specific Locations within a Settlement		
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 control generates 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.	This project does not involve a headland, cliff edge or prominent coastal ridge.

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TABLE 13 – COASTAL DESIGN GUIDELINES		
PART	GUIDELINE	COMMENT
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: <ul style="list-style-type: none"> ♦ reinforcing public and active uses; ♦ setting development back a sufficient distance to ensure adjoining public open spaces are not effectively privatised; ♦ ensure building edges adjoining public spaces reinforce public uses along and within public land. 	The proposal provides appropriate delineation of the boundary to the Cudgen nature reserve and provides generous setbacks from that boundary.
4.	Mitigate overshadowing of public open space and the foreshore by applying the standard, no overshadowing before 4.00pm midwinter and 7.00pm summer daylight saving time.	The site is not located adjacent to the foreshore.
5.	Define the boundaries of the site with a public edge, such as pedestrian pathways, public laneways or public streets, that connect to the street hierarchy.	The site boundary will be fenced.
6.	Ensure buildings have well articulated and scaled elevations.	The building elevations are well articulated with variation in colours and materials, deep shaded balconies and fenestration detail.
Along the Settlement Edges		
1.	Prevent the privatisation of public open space by ensuring development adjacent to the edge maintains public access. Generally the boundary between public and private land may be defined with pedestrian pathways, public laneways or public streets that connect to the street hierarchy. The transition from private to public uses should be designed to consider security and privacy for residential uses.	This project does not privatise any existing public open space.
2.	Provide adequate building setbacks to allow for asset protection zones for bushfire management.	Appropriate asset protection zones are proposed from the nominated building envelopes to the hazard to the west of the site.
3.	Design buildings to address open spaces and edge roads.	The proposed building provides an appropriate address to the site frontages.

8.2.3 Consistency with the NSW Coastal Policy, 1997

Table 14 contains an assessment which demonstrates the consistency of the proposal with the NSW Coastal Policy 1997.

TABLE 14 – NSW COASTAL POLICY 1997		
STRATEGIC ACTION NO.	SUMMARY PROVISION	COMMENT
Natural Environment		
1.1.6	Voluntary conservation agreements.	Not applicable.
1.1.7	Seagrass, mangroves, saltmarsh and other wetland associated species.	The subject site does not contain any marine vegetation. Therefore there will be no significant impacts on salt marsh mangroves and seagrass.
1.2.3	Fish habitat modification or alienation.	As above.
1.2.5	Threatened Species Conservation Act.	A Flora and Fauna Assessment has been completed (Annexure 15) which concludes that the proposed development is not likely to have a significant effect on threatened species.

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TABLE 14 – NSW COASTAL POLICY 1997		
STRATEGIC ACTION NO.	SUMMARY PROVISION	COMMENT
1.3.1	EPA licensing of STP and other point source discharges.	Not applicable.
1.3.2	Non-point source pollution.	Appropriate stormwater management measures will be implemented during the construction phase and the operational phase to ensure that water quality is not diminished.
1.3.7	Waste water discharge limits.	Not applicable.
1.3.8	Contaminated stormwater.	Appropriate stormwater management measures will be implemented during the construction phase and the operational phase to ensure that water quality is not diminished.
1.3.12	Vessel sewage pumpout facilities.	Not applicable.
1.3.13	Re-use of treated biosolids and effluent.	Not applicable.
1.4.5	Assessment of coastline development proposals.	Not applicable.
1.4.7	Assessment of estuarine development proposals.	Not applicable.
Natural Processes and Climate Change		
2.1.3	Physical and ecological processes to be considered when assessing development applications.	All relevant issues are addressed in this Environmental Assessment Report.
2.1.4	Acid sulphate soils – environmental studies; DLWC mapping and EPA guidelines; requirement for EIS; monitoring and restoration works; management plans.	Acid sulphate soils are not present to a depth of 4.5m (see Annexure 17).
2.2.2	Sea level change.	This issue is addressed in the Engineering Assessment at Annexure 18 .
Aesthetic Qualities		
3.2.1	North and South Coast Design Guidelines and Guidelines for Tourism Development along the NSW Coast.	An assessment against the Coastal Design Guidelines for NSW is provided in Table 13 .
3.2.4	Design and locational principles for development applications.	The development is not inconsistent with the key design and locational principles.
3.2.5	Siting of navigational aids, marine communication towers, warning signs and moorings.	Not applicable.
Cultural Heritage		
4.2.3	Coastal sites of Aboriginal heritage significance.	The Cultural Heritage Assessment Report at Annexure 11 concludes that the development is not likely to impact on items of Aboriginal cultural heritage.
Ecologically Sustainable Use of Resources		
5.1.11	Ecotourism developments and Guidelines for Tourism Developments Adjacent to Natural Areas.	The proposed development includes an element of conventional tourist development within an existing urban area, which has connection to all urban services and seal road frontage.
5.3.3	Aquaculture procedures, permits and guidelines.	Not applicable.
5.3.4	Development consent for mining.	Not applicable.
Ecologically Sustainable Human Settlement		
6.1.4	Canal estate developments.	Not applicable.

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TABLE 14 – NSW COASTAL POLICY 1997		
STRATEGIC ACTION NO.	SUMMARY PROVISION	COMMENT
Public Access and Use		
7.1.5	Tourism development and public foreshore access.	Not applicable.
7.2.3	Coastal developments and surf life saving facilities.	Not applicable.
7.2.4	Surf life saving facilities and Section 94 levies.	Contributions are not applicable as Section 94 Plan No. 16 (Surf Life Saving) has been repealed. A Surf Club exists at Cabarita Beach approximately 400m south of the site.

8.2.4 Design Statement and Access Review

The proposed development has been designed by the Project Architect following a detailed consideration of the site context, the opportunities and constraints presented by the site and surrounding uses. The access to and within the proposed development has been designed to provide practical, safe and compliant access.

A Design Statement has been prepared by the Project Architect (**Annexure 8**) which provides details of the design process and the proposed development. The Design Statement also provides details on access to the building including paths of travel, emergency egress and accessibility.

8.2.5 State Environmental Planning Policy No. 65 – Design Quality of Residential Flat Development and BASIX

The proposed development has been designed in accordance with the requirements and design principles of SEPP 65. An assessment of the proposal against the Design Quality Principles of the SEPP and a Design Verification signed by the Project Architect is attached as **Annexure 8**. The proposed building has also been assessed with the water and energy efficiency and thermal comfort requirements of BASIX and demonstrated to comply. The BASIX Certificates are attached as **Annexure 9**.

8.2.6 Building Management

The proposed building will be strata titled upon completion. The strata scheme will establish the building management regime and address the ongoing structure for the governance of property within the scheme.

A Building Management Report has been prepared by Stewart Silver King and Burns which provides details of the occupancy type, management system and strata scheme roles and responsibilities (**Annexure 22**).

In particular the Building Management Report contains measures designed to minimise potential conflict between the permanent residential and the any short term tourist accommodation land uses. In this respect the report recommends the following:

“How the Building Management / Strata will manage potential for conflict between permanent residential and short term tourist accommodation uses

To minimise the potential impacts of short term tourist accommodation (dual use units 6, 7, 8, 14, 15 and 16) in close proximity of permanent residential dwellings the following matters are to be addressed through the use of Bylaws.

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-
- (1) *Details of the restriction of use on identified short term accommodation units, to the benefit of the owners corporation, in terms of:*
- (a) *the location, control, management, use and maintenance of any part of the building or its site that is a means of access;*
 - (b) *safety and security measures;*
 - (i) *Preservation of fire safety*
 - (ii) *Prevention of hazards;*
 - (c) *the control of noise levels including, but not be limited to, amplified music, gatherings of occupiers and use of facilities;*
 - (d) *Management of Common Property including, but not be limited to, use of trafficable areas for recreational equipment, storage and gatherings of occupiers;*
 - (e) *Behaviour of owners, invitees and occupiers;*
 - (f) *Keeping of animals;*
 - (g) *Provision of amenities or services;*
 - (h) *Controls on hours of operation and use of facilities;*
 - (i) *Notification of short term accommodation residents of the Bylaws including notices in all tourist accommodation units;*

The bylaws shall include the following restrictions in relation to any Short Term Tourist Accommodation Use of Units 6, 7, 8, 14, 15 and 16.

- *A Short Term Resident must do everything reasonably possible to minimize any detrimental impact to the amenity of other Residents (particularly those Residents who live permanently in a lot) caused by the Short Term Resident's use of the lot or Common Property.*
- *A Short Term Resident must not create any noise that is likely to cause a disturbance to other Residents after 10pm and before 7am.*
- *If a Short Term Resident breaches a By-law the Owner's Corporation is authorized to immediately request the Short Term Resident to vacate the Short Term Accommodation Unit.*
- *A Short Term Resident must endeavour to cause minimal disturbance to other Residents when moving into or vacating a Short Term Accommodation Dwelling and must not block access ways or obstruct any part of the Common Property.*
- *A Short Term Resident must take all reasonable steps to ensure that all security keys or devices used by it are returned to the Letting Agent at the time that the Short Term Resident vacates the Short Term Accommodation Unit. The Owner's Corporation is entitled to charge a fee to Short Term Residents for changing of security locks if required as a result of a breach of this By-law.*
- *Each owner of a lot containing Unit 6, 7, 8, 14, 15 or 16 who intends to offer its lot for the use of Short Term Residents must notify in writing the Owner's Corporation of such intention. The Owner's Corporation must keep a register of those owners who intend to offer their lots for the use of Short Term Residents and must regularly update this register. This register must be available for inspection by any owner of a lot or prospective purchaser of a lot.*
- *Each owner of a lot containing Unit 6, 7, 8, 14, 15 or 16 who intends to offer its lot for the use of Short Term Residents must:*
 - (1) *clearly display a copy of these By-laws in that lot and must ensure that the Short Term resident signs an acknowledgement that it has received and read a copy of the By-Laws prior to entering into occupation of the Short Term Accommodation Unit; and*
 - (2) *take all reasonable steps to ensure that Short Term Residents comply with these By-laws."*

The proposed management measures contained within the Building Management Plan are intended to be implemented in the strata scheme upon completion of the proposed development.

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8.3 Visual Impact

The project site is located on a prominent site at the northern entrance to Cabarita Beach. Although located on elevated land the nature of the existing landscaping and topography of the adjoining land limit the impact of the proposal on the views from public or private areas in the vicinity of the site.

The Visual Impact Assessment at **Annexure 10** addresses visual impacts in detail and contains the following key findings:

“The current landform, density and height of existing planting on the subject site already limits any internal or cross views from street level of either of the three identified public areas, namely; Coast Road, Cudgen Reserve and Beach Foreshore. Refer drawing number VIS-03

*The visual impact of the completed building from Coast Road and Cypress Avenue will be minimised with the proposed streetscape introduction of *Araucaria cunninghamia* (Norfolk Pines), to match the existing fifteen (15) metre tall specimen on the corner, the proposed trees at time of installation would be in the order of six (6) metres therefore reaching the second level. Between the streetscape and the building within the property is substantial landscape screening for both internal privacy and to soften the building mass from the external view, this will be made up of trees *Cupaniopsis anarcoideoides* (Tuckeroos) to a height of four (4) meters along the length and *Pandanus tectorius* at the entry all with understorey planting to nominal two (2) meters high. Refer drawing number VIS-04*

From the Foreshore the building will be difficult to detect due to the site lines being obscured by existing trees and plantings and the sheer distance from one to another.

Views from Cudgen Reserve shall again be similar to that of Coast Road where the introduction of trees inside the site and augmented planting along the boundary mixed with the existing vegetation being native trees and shrubs to five (5) meters tall

The proposed buildings colours will blend rather than contrast with the proposed landscaping and the various articulations allow the mature trees to step closer to the building and soften the overall massing.”

Photomontages have been prepared and are included in the Visual Impact Assessment attached as **Annexure 10** to illustrate impacts on views and visual appearance.

Based on the information contained in the Visual Impact Assessment and the photomontages it is considered that the proposed development is unlikely to result in any significant adverse impact on the views available within the area or the visual amenity of the locality.

8.4 Infrastructure Provisions

The Civil Engineering Report at **Annexure 18** addresses infrastructure issues. Relevant considerations in relation to infrastructure are addressed in the following section.

SEWER RETICULATION

There is an existing 150mm diameter gravity sewer main located within the Cypress Crescent road reserve. It is proposed to connect discharge from the development to the existing sewer via the existing property connection point.

The existing site currently services 25 caravan sites which has an existing design discharge for 60 equivalent persons (EP) and a flow of 1.06l/s. The proposed development will increase the proposed sewer demands for the proposed development which will contain 24 residential and tourist accommodation units.

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WATER RETICULATION

The existing development on the site is connected to the 100mm diameter water main located in Cypress Crescent. The proposed development may connect to this service or alternatively the proposed development may connect to the 250mm water main that is located within the Tweed Coast Road.

An assessment of the additional demand on Council's water reticulation system has been undertaken. Discussions and subsequent verbal advice from Tweed Shire Council indicate that the existing Council system is capable of meeting the additional demand proposed by the development. The flow requirements for the development have been assessed in accordance with WSA03 – 2002.

The calculations below determine the estimated demand the proposed development will have on the existing system. These calculations were used to aid Council in determining whether there is any requirement to upgrade any portion of the system.

The current site usage has been determined to have the following demands.

On Demand Services – Existing

AD 21,000 Litres per Day
MDMM 31,500 Litres per Day
PD 52,500 Litres per Day
PH 4,375 Litres per Hour

The ultimate development of the site requires:

On Demand Services – Ultimate development

AD 26,880 Litres per Day
MDMM 40,320 Litres per Day
PD 67,200 Litres per Day
PH 5,600 Litres per Hour

The internal main is the subject of independent assessment and is required to meet the standards of the Plumbing and Drainage Codes AS3500. A booster pump for fire services may need to be considered; however this will require a pressure and flow test on the existing main and is best determined at the Construction Certificate stage.

ELECTRICITY

The existing development provides 25 powered sites and amenity buildings. This will be replaced by 24 residential and tourist accommodation units. It is anticipated that the demand will be of a comparable magnitude.

TELECOMMUNICATIONS

There are existing underground Telstra lines located at the site frontage. Preliminary consultation has been undertaken with Telstra regarding any necessary upgrades. Details of the required upgrade will be discussed with Telstra at the Construction Certificate stage.

GAS

Reticulated gas supply is not available at this site. As per the BASIX Certificate accompanying the application, solar and electric appliances are to be used within the development. A bottled reticulated gas supply is not required.

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WASTE DISPOSAL

Individual general waste and recycling “wheelie bins” will be provided for each unit within the development. The bins are to be stored in the allocated bin storage areas within the basement and wheeled to the kerbside on collection day by a person nominated or contracted by the Body Corporate. It is intended to manage the use of the bins, by way of appropriate signage, so that residents progressively fill and store the bins on a communal use basis, rather than on an individual use basis. This will ensure that fewer bins will need to be placed at the kerb on collection day. The collection of the bins will be via Council’s normal kerbside collection.

The communal use of wheelie bins rather than an industrial bulk bin is preferred in this instance as it will result in a more efficient method of waste management. In addition, it will improve the amenity for residents storing the bins at the basement level, rather than at the site frontage.

8.4.1 Planning Agreements and Development Contributions

Relevant Section 94 and Section 64 Contributions are identified in Section 4.5.11 of this Assessment.

There is no need arising as a result of this development for a Planning Agreement.

8.5 Traffic and Access

The site is presently improved with a caravan park comprising 25 sites. The existing caravan park provides vehicular access to Tweed Coast Road and Cypress Crescent. Tweed Coast Road is a designated road and is described in Tweed Shire Local Traffic Data Counts as a Rural Distributor. Cypress Crescent is a residential access street.

There is existing kerb and channel on both frontages and a shared pedestrian and cycleway path is located adjacent to the Tweed Coast Road. The Tweed Coast Road has a pavement width of 10m plus turning lanes and in the vicinity of the site has a designated speed limit of 50km/h. Cypress Crescent has a pavement width of 8m and a designated speed limit of 50 km/h.

The Civil Engineering Report attached as **Annexure 18** provides a traffic assessment based on the standards contained within the *RTA Guide to Traffic Generating Developments*. The assessment indicates that the proposed development will generate at total of 14.5 peak hour trips which is an increase of only 4.5 peak hour trips compared to the existing development on the site.

The proposal will not impact significantly on the main local or regional road network capacity. A protected right turn and left turn entry into Cypress Crescent exists on the Tweed Coast Road. The increase in traffic is minor and is within Council’s specified functional capacity for this class of road.

Proposed access to the development will be to and from Cypress Crescent. The proposed development includes the removal of an existing driveway crossover to Tweed Coast Road and two crossovers to Cypress Crescent, leaving one consolidated point on ingress and egress. The proposed access and grades will comply with Tweed Shire Council’s Driveway Access to Property Design Specification, Part 1, June 2004.

During the construction phase, heavy vehicle traffic could be expected. This would comprise of earthmoving equipment, construction plant equipment and builder’s vehicles. Impacts resulting from the traffic generated by construction would be mitigated by the low existing traffic volumes and relatively short duration of works.

It is concluded that the development does not have a significant impact on the existing traffic environment and the proposed removal of the existing driveway crossover from the site to the Tweed Coast Road and two existing crossovers to Cypress Crescent will reduce potential traffic conflict points and therefore improve the existing road network.

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8.6 Hazard Management and Mitigation

8.6.1 Coastal Processes

A study has been completed on the coastal process hazards for the Tweed Shire Council by WBM Oceanics Australia, titled Tweed Shire Coastline Hazard Definition Study, (TCHDS 2001). The Study has assessed the hazards identified by zones of land under threat from events such as climate change, sea level rise, wave action and wind action. Hazard bands have been delineated for each planning period of coastal inundation where elevated water levels occur from a combination of storm tide, wave setup, wave run up and sea water level rise. The hazard bands being the immediate/post storm, presently developed areas 50 years and future developments 100 years.

Council has determined that for risks to existing developments a 50 year planning period was appropriate and undeveloped (and future developed) land a 100 year planning period appropriate, Tweed Shire Council, Tweed Shire Coastline Management Study Stage 2, Management Objectives, 2005. A 100 year planning period has been adopted for the proposed development site. The site is located landward of the maximum 1 in 100 year hazard line (refer to **Figure 7**).

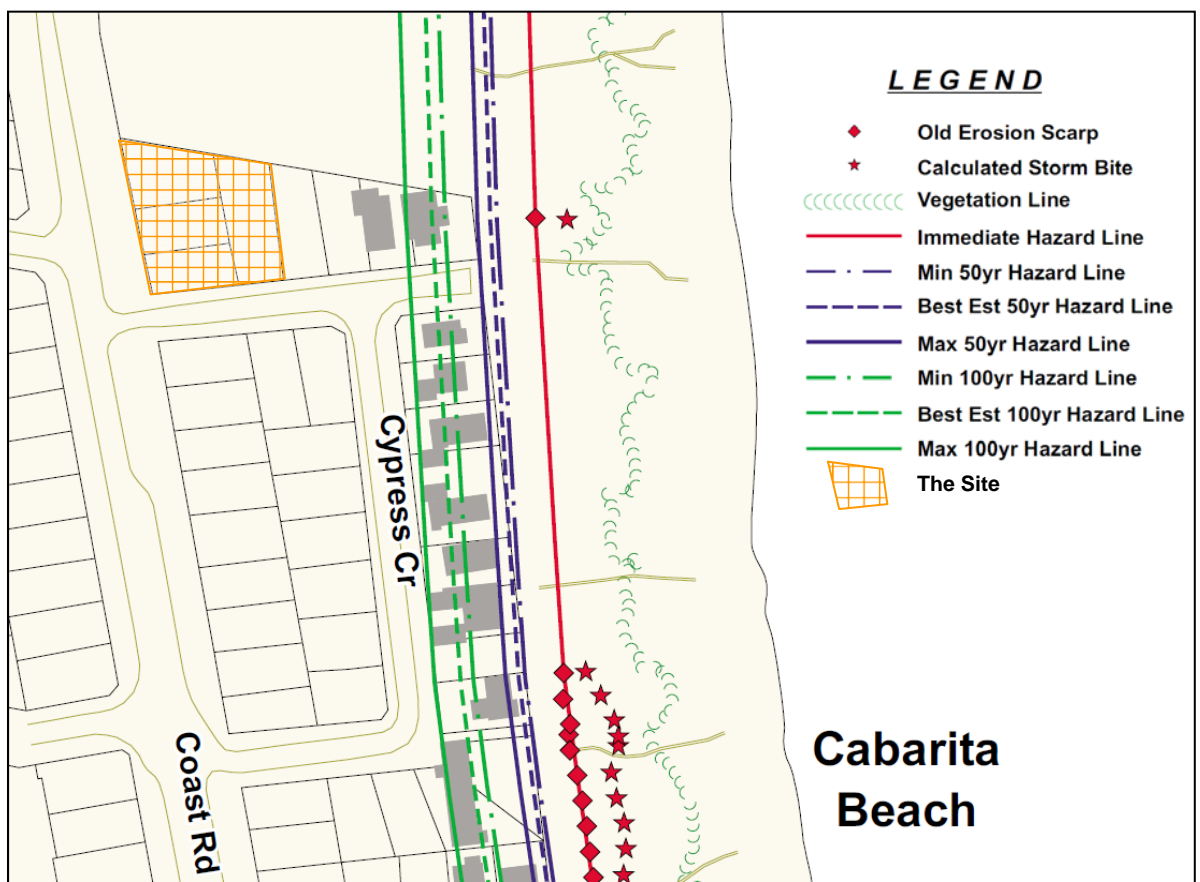


Figure 7 – Coastal Hazard Map
Source: Tweed Shire Council

Section 8.4.1 of the TCHDS has identified that wind transport losses are not presently significant at Bogangar Beach region as there is good coverage of vegetation. The location of the subject site and the proposed landscaping make it unlikely for wind transport losses to occur. Table 4.3 of TCHDS contains storm tide and wave setup levels for the Tweed Coast region. The 100 year planning period as adopted for the proposed site is RL 1.85m AHD for storm tide and RL 3.01m AHD for wave setup level.

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The proposed site has levels ranging from RL 8.23m AHD to RL 5.96m AHD which is greater than the 100 year planning period for storm tides and wave setup levels. In addition the separation and urban development provided between the site and the coastline make it unlikely that any significant wave issues would be experienced at the site.

Table 4.4 of TCHDS anticipates the future sea level rise for the years 2020, 2050 and 2100. The table estimates the latest low, mid (best) and high global mean sea level rise. The anticipated sea level rise for a 100 year planning period is 0.15m (low), 0.5m (best estimate) and 0.95m (high).

Due to the levels of the site, the development is unlikely to be affected by the anticipated sea level change.

The location of the subject site in relation to the coastline means that coastal erosion impacts are not applicable in this instance.

8.6.2 Contamination

A Preliminary Contaminated Land Investigation has been completed and the results are contained in **Annexure 13**.

During the course of the investigation no evidence was uncovered to suggest that potential contaminants had been applied to the subject site or that contaminating activities have occurred within its boundaries. As the site history is complete and there is no likelihood of contaminants being applied to the site, it was decided that no sampling and analysis was required.

Consequently, no further action is recommended and from a contaminated land perspective, the site can be considered suitable for the proposed residential and tourist accommodation use.

8.6.3 Acid Sulphate Soils

An Acid Sulphate Soils Investigation has been completed and the results are contained in **Annexure 17**.

The results of the investigation suggest that acid sulphate soils are not present at the subject site to a depth of 4.5m below existing surface level. The Acid Sulphate Soil Assessment concludes that "the dark grey - yellow sands found across the site exhibited a relatively neutral pH, and showed little potential to oxidise and produce additional acidity. Disturbance of this material is not going to lead to sulphate oxidation or significant levels of mobilised acidity, and therefore no further action is proposed."

8.6.4 Bushfire

A Bushfire Threat Assessment has been completed and the results are contained in the report at **Annexure 12**.

The report has assessed the proposed development and provides supporting information to enable the NSW Department of Planning and NSW Rural Fire Service to assess the proposal against the requirements of Planning for Bushfire Protection 2006 as directed by the Director General's Environmental Assessment Requirements.

Although the application does not require a Bushfire Safety Authority (s75U EP&A Act 1979) an assessment has been undertaken against the heads of consideration of Clause 44 of the Rural Fires Regulation for format purposes to demonstrate compliance with the Performance Criteria of Planning for Bushfire Protection 2006.

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The land is mapped as bushfire prone land due to the tall heath vegetation within the Cudgen Nature Reserve to the north.

The report establishes compliance with the Performance Criteria and satisfies the “exceptional circumstances” of Section 3.3 of Planning for Bushfire Protection 2006 where part of the Asset Protection Zone (APZ) is to be located on land affected by the Cudgen Reserve Fire Management Strategy.

A minimum 28m APZ will be provided to the residential units and 45m APZ to the tourist accommodation units in accordance with Table A3.4 and Table A2.6 of Planning for Bushfire Protection 2006.

The report concludes with the recommendation that a Bushfire Safety Authority be granted for the proposed development.

“The following recommendations are made to the Rural Fire Service to be included with the issue of a Bush Fire Safety Authority.

1. *The building is to be constructed in accordance with Level 1 construction standards pursuant to AS 3959-1999 and garage door openings in accordance with s4.3.5 and Figure 4.9 of Planning for Bushfire Protection 2006.*
2. *Should a gas service be installed the following aspects will require consideration:*
 - *Reticulated or bottled gas installed and maintained in accordance with AS 1596 with metal piping used.*
 - *Fixed gas cylinders to be kept clear of flammable material by a distance of 10m and shielded on the hazard side of the installation.*
 - *Gas cylinders close to the dwelling are to have the release valves directed away from the building and at least 2m from flammable material with connections to and from the gas cylinder being of metal.*
 - *Polymer sheathed flexible gas supply lines to gas meters adjacent to the buildings are not used.*
3. *Landscaping is to be undertaken in accordance with A5.3 of Planning for Bushfire Protection 2006.*
4. *Vegetation management is to be undertaken in accordance with A5.4 of Planning for Bushfire Protection 2006.*
5. *Maintenance of the property is to be undertaken in accordance with A5.5 of Planning for Bushfire Protection 2006.*
6. *The design principles of s4.3.5 of Planning for Bushfire Protection 2006 are to be complied with.*
7. *A hydrant and hose reel system is to be provided in accordance with Part E of the Building Code of Australia. It is assumed that the system is compliant with 2419.1 and AS 2441 and in this regard it is recommended that certification be obtained from the Principal Certifying Authority.*
8. *An emergency evacuation procedure and detailed plans of all Emergency Assembly Areas (onsite and offsite) are to be prepared in accordance with the RFS Guidelines for the Preparation of Emergency/Evacuation Plan and AS 3745-2002. The emergency evacuation plan is to be submitted to the Rural Fire Service for approval prior to the occupation certificate being issued. The developer is to provide a copy of the above document to the local Bush Fire Management Committee and DECC for their information prior to the occupation of any accommodation of a SFPP.*

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9. *Electrical supply is to be placed underground.*

10. *The entire property is to be an Inner Protection Areas monitored and management in accordance with the 'Standards for Asset Protection Zones' (RFS 2005) and Appendix 5 of PBP2006.*

11. *Units denoted 6, 7, 8, 14, 15 and 16 are capable of being used as Class 3 tourist facility use pursuant the Building Code of Australia provided they are located 25m from the north boundary."*

8.6.5 Geotechnical

Annexure 16 comprises a Geotechnical Report prepared by Border Tech. The Geotechnical Investigations involved the drilling of a total of three bore holes over the site to depths of 9.2m.

Based on the borehole drillings the soils across the majority of the site are characterised by a filled layer of loose silty sands and sand from ground level to 0.7m to 1.4m depth. The fill materials are underlain by alluvial loose to medium sands extending to the water table depth where the sands become medium to dense. The fill material encountered on the site has been placed recently.

Groundwater was encountered at approximately 4.4m to 4.8m below the existing surface levels across the site however the water table may fluctuate in this area as a result of seasonal variation and during periods of high rainfall.

The Geotechnical Report does not identify any significant geotechnical constraints on the site.

8.6.6 Flooding

The site has been assessed for potential flood hazard. The Civil Engineering Report attached as **Annexure 18** indicates that the site is unaffected by regional flooding. In addition the site is not affected by localised flooding as it is located at the head of the catchment.

8.7 Water Cycle Management

As detailed in the Stormwater Management Plan prepared for the proposal (**Annexure 20**), Appendix F of the NSW EPA publication "Managing Urban Stormwater: Council Handbook (Draft), December 1997", recommends that the modelling approach for this size development be a Level 1 assessment. Assessment of the average annual storm load is required and the treatment determined. The buildings, driveways and landscaping areas, will generate pollutants.

The base data adopted for the assessment of the proposal is as follows:

- Average annual rainfall 1719 mm/year
- Runoff coefficient for impervious areas 1.0
- Runoff coefficient for landscaping areas 0.6
- Catchment Area (Driveway & Basement) 0.2582ha

The drainage system is proposed to discharge to the existing piped system.

The primary pollutants of concern as a result of this development are:

- Sediments
- Nutrients
- Oils and grease

The provisions of the "Tweed Urban Stormwater Quality Management Plan" need to be satisfied for the Operational Phase of the project. As such the water quality objectives, for the driveway and basement areas only, as detailed in Table 5.4 of that document, equate to the following discharge criteria for an average year.

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-
- Suspended Solids (SS) 77.46 kg/year
 - Total Phosphorus (TP) 0.207 kg/year
 - Total Nitrogen (TN) 1.162 kg/year

The catchment area of 0.2802ha will discharge directly to the existing drainage system. The post development phase will result in an increase in the impervious area of land and subsequently will result in an increase in the peak discharge and volume of runoff. It is assumed that the existing system is adequately sized to cater for runoff. No mitigation of the discharge is proposed.

These water quality goals are to be achieved prior to discharging into the drainage system. Treatment of the runoff collected from the roof drainage is not required.

Using the "deemed to comply" provisions of Section D.7.12 of the "Tweed Urban Stormwater Quality Management Plan" a proprietary device can be determined on size and on this basis the determination of the treated pollutant loads is not required. It therefore is proposed to provide a treatment device, for the removal of suspended solids and nutrients using this method.

The potential for sediment generation and oil/grease within the driveways warrant the consideration of primary treatment in the form of an Oil and Grit Separator. This should be located at the collection point prior to discharging into the existing system (Refer to drawing A.6.21/SK2).

Oil and Grit Separators have varying efficiencies of pollutant removal dependant on the type unit selected, however the proposed use of a Humes STC 2 Oil & Grit Separator, with a wet well size of 1.30m³ will satisfy the "deem to comply" requirements of Section D7.12.

In summary, stormwater collected from the site (with the exception of roof water) is to be treated prior to discharge. Roof water is to be collected, stored and reused for landscape irrigation within the development. Discharge from the storage area will be via the existing piped stormwater system.

8.8 Heritage and Archaeology

Cultural heritage issues have been investigated and are addressed in the report at **Annexure 11**.

The report presents the results and outcomes of a Cultural Heritage Assessment for Indigenous and non-Indigenous heritage items for the proposed residential subdivision.

As part of a desktop study, Everick undertook searches of the relevant Aboriginal and Historic Heritage Registers. A search of applicable European Heritage Registers did not identify any items of cultural heritage significance within the Subject Lands. A search conducted on 7 July 2009, of the Department of Environment, Climate Change and Water ('DECCW') Aboriginal Heritage Information Management System ('AHIMS'), found 41 recorded sites for the broader search area. These are indicated in Figure 8 of **Annexure 11**. None were recorded within the Subject Lands. There are no Indigenous places within the Subject Lands listed in other Heritage Registers.

The Subject Lands are within the area administered for Aboriginal cultural heritage purposes by the Tweed Byron Local Aboriginal Land Council ('LALC'). A survey for historic and Aboriginal cultural heritage was carried out by the consultant and Cyril Scott, Sites Officer for the Tweed Byron LALC, on 10 July 2009. The Land Council's views on the conduct and outcomes of the assessment are provided in Appendix A of **Annexure 11**. Further site inspections were undertaken by Aboriginal and other community representatives on 25 July 2009. Their opinions are provided in correspondence in Appendix A and the meeting minutes in Appendix C of **Annexure 11**.

No Aboriginal archaeological sites or relics were found as a result of the literature review or field inspection of Lots 1, 2 and 3 DP 29748 and Lot 4 Section 1 DP 31209 at Cypress Crescent, Cabarita Beach. No items of historic (non-Indigenous) cultural heritage were identified.

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8.9 Flora and Fauna

8.9.1 Potential Impacts

The Flora and Fauna Assessment at **Annexure 15** addresses the relevant considerations contained in the Director General's Environmental Assessment Requirements. Relevant extracts from the Assessment are reproduced as follows:

Assess the potential impacts of the development on flora and fauna and describe actions to avoid or mitigate impacts.

A summary of the existing flora and fauna values is provided as follows.

Flora values

A detailed flora survey was undertaken of the entire site. The assessment including location, methods, composition and extent of the vegetation communities and a species list is provided (APPENDIX 1 and 2 of **Annexure 15**).

The flora assessment recorded:

- Two (2) vegetation communities;
- Twenty-nine (29) flora species.

No threatened flora species were recorded.

Fauna values

A fauna survey was undertaken of the entire site. In addition to recording fauna observed, habitat was assessed to determine which fauna species use, or are likely to use, the site. The assessment including location, methods and a discussion of the results is provided (APPENDIX 3 of **Annexure 15**).

Fauna surveys recorded

- Five (5) bird species; and
- No mammals, reptiles or amphibians.

No threatened fauna species were recorded.

Five (5) threatened fauna species were predicted to potentially occur on the subject site over time, based on the availability of suitable habitat within the adjacent Cudgen Nature Reserve. These species are as follows:

- Common blossom bat (*Syconycteris australis*)
- Common planigale (*Planigale maculata*)
- Grey-headed flying-fox (*Pteropus poliocephalus*)
- Little bent-wing bat (*Miniopterus australis*)
- Eastern Pygmy Possum (*Cercartetus nanus*)

The impacts and amelioration measures are discussed as follows.

Plant Communities

Impacts

The proposed development will not result in the loss of any native vegetation on the site of the proposed development. The existing cleared land to the north of the site will be maintained as a bushfire APZ.

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There will be no clearing in the area of the APZ. Although, there will be no direct impacts on the adjacent Cudgen Nature Reserve, six gates are planned along the northern boundary fence providing access directly into the cleared area of the nature reserve and ultimately to the beach. This access may result in a range of potential impacts of the native vegetation communities:

Potential impacts on adjacent native vegetation communities include:

- Potential for degradation of retained areas of vegetation by the introduction of weeds;
- Occupation of the site may increase the risk of fire release into the surrounding bushland;
- Residents may create walking tracks through adjacent bushland areas. This may result in direct loss of vegetation, change in vegetation structure and increased opportunities for weed and disturbance adapted animals; and
- Increased light, noise and activity may cause reclusive species to move away from habitat edges.

Avoidance or Mitigation

The proposed development will avoid any significant direct impacts on native vegetation communities as the site is generally clear of native vegetation.

However, the following mitigation measures for the proposed development should be implemented to mitigate against potential indirect impacts:

- Protection of the vegetated areas of the Cudgen Nature Reserve during the construction phase of the development. A temporary mesh fence will prevent machinery, construction rubbish and contractors from entering the Reserve.
- The cleared area of the reserve should not be used for vehicular access or for storage of building or landscaping materials;
- Weeds should be controlled on the development site;
- Landscape plantings should include a majority of native species that will provide forage habitat for nectarivorous and frugivorous birds and bats; and
- Use of known environmental weeds (e.g. Umbrella tree) should be avoided in landscaped areas.

Compensation

NPWS should be consulted and consideration should be given to the following:

- Prohibitive and educational signage on the edge of the Banksia community in the Cudgen Nature Reserve; and
- The construction of one formalised path providing access to the beach.

Assessments of significance (TSC Act) are not required as the project is being assessed under Part 3A of the Environmental Planning and Assessment Act 1979, however the Department of Environment and Climate Change and the Department of Primary Industries have provided guidelines for assessing impacts through assessing key thresholds with the response to a set of questions. Responses are provided as follows:

Flora

No threatened flora species were recorded on the subject site.

Endangered Ecological Communities (EECs)

No EECs were recorded on the Subject site.

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Fauna

No threatened fauna species were recorded on the subject site. However, five (5) threatened fauna species were considered possible occurrences on the subject site over time, due to the availability of suitable habitat within the adjacent Cudgen Nature Reserve, and will be assessed.

- a) *Will the proposal, including actions to avoid or mitigate impacts or compensate to prevent unavoidable impacts, maintain or improve biodiversity values?*

Biodiversity should be considered on three (3) levels:

- Genetic diversity - the variation of the genes within a species.
- Species diversity – the number of different types of plants and animals.
- Ecosystem diversity – this is the variety habitats on earth.

The proposed development will maintain Biodiversity on all of these levels. The proposed development will utilise the land currently used as a caravan park. This land has a significant disturbance history and has no native vegetation remains.

- b) *Is the proposal likely to reduce the long-term viability of a local population of the species, population, or ecological community? &*
c) *Is the proposal likely to accelerate the extinction of the species, population or ecological community or place it at risk?*

Common blossom bat

Extent of the local population

The NPWS database contained sixteen (16) records of this species within 10km of the site, and two (2) records from the CNR. The NPWS online database contained twenty-five (25) sightings of this species in the Tweed LGA.

Stages of the life-cycle affected by the proposed development.

As part of the RFA process, Environment Australia (1999) conducted an analysis of the responses of forest fauna to various forms of land cover disturbance in the northeast region. The analysis identified breeding and sheltering sites for Common blossom bat as consisting of subtropical and littoral rainforest. This species breeds twice, in the coastal complex and riverine rainforest in spring and in the coastal complex in autumn. It needs a diverse array of nectariferous plant communities nearby. The Common blossom bat forages in a diverse range of nectar producing plant communities year round; occasionally eating some rainforest fruits. The RFA analysis (Environment Australia 1999) ranked the significance of various forms of disturbance for the Common blossom bat, with the following results:

1 st order disturbances	Clearing - habitat loss Management burns, including illegal
2 nd order disturbances	Clearing resulting in fragmentation, increasing predation and decreasing food availability Wildfire Apiary Weed invasion Drainage of swamps Sand mining
3 rd order disturbances	Logging of coastal sclerophyll forests with Banksia understorey Aerial spraying of bitou bush
4 th order disturbances	Sand dune disturbance from recreational 4WDs
5 th order disturbances	Barbed wire fences Introduced predators

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Likelihood of local extinction

No vegetation (ie. potential forage trees - mostly Heath-leaved Banksia) will be lost. No potential roost habitat will be lost. Substantial potential forage habitat occurs to the north within the Cudgen Nature Reserve. The long term viability of this species, on a local level, will not be reduced by the proposed development. The proposal is unlikely to accelerate the extinction of this species or place it at risk.

Common planigale

Extent of the local population

The NPWS database contained fifteen (15) records of this species within 10km of the site, and two (2) records from the CNR. The NPWS online database contained thirty (30) sightings of this species in the Tweed LGA.

Stages of the life-cycle affected by the proposed development

As part of the RFA process, Environment Australia (1999) conducted an analysis of the responses of forest fauna to various forms of land cover disturbance in the northeast region.

The analysis identified breeding and sheltering sites for Planigales as consisting of nests of eucalypt leaves in logs or under bark, in cracks in the soil or in grass tussocks. Nests were also located in building debris. The Common planigale forages in dry sclerophyll, swamp sclerophyll, heathland and grassland at the ecotone with rainforest in areas with dense leaf litter or ground cover. The RFA analysis (Environment Australia 1999) ranked the significance of various forms of disturbance for the Common planigale, with the following results:

1 st order disturbances	Predation by cats Loss of habitat
2 nd order disturbances	Altered fire regimes Baiting for dingoes
3 rd order disturbances	Exotic competitors
4 th order disturbances	Predation by cane toads

Likelihood of local extinction

No potential habitat for this species will be lost as a result of the proposed development. Substantial potential forage habitat occurs to the north within the Cudgen Nature Reserve. The long term viability of this species, on a local level, will not be reduced by the proposed development. The proposal is unlikely to accelerate the extinction of this species or place it at risk.

Grey-headed flying-fox

Extent of the local population

The NPWS database contained eleven (11) records of this species within 10km of the site, and eleven (11) records from the CNR. The NPWS online database contained one hundred and ninety (190) sightings of this species in the Tweed LGA.

Stages of the life-cycle affected by the proposed development

As part of the RFA process, Environment Australia (1999) conducted an analysis of the responses of forest fauna to various forms of land cover disturbance in the northeast region. The analysis identified breeding and sheltering sites for the Grey-headed flying fox as consisting of mainly rainforest and moist riparian forest with a complex mosaic of rainforest, swamp and sclerophyll forest resources less than 40-50km from roost.

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There is high site fidelity with roosts often in riverine rainforest. The Grey-headed flying fox forages in subtropical rainforest with a mosaic of resources – rainforest fruit, nectar and pollen. The Grey-headed flying fox is less restricted to rainforest remnants than the Black flying fox. The RFA analysis (Environment Australia 1999) ranked the significance of various forms of disturbance for the Grey-headed flying fox, with the following results:

1 st order disturbances	Clearing - habitat loss
2 nd order disturbances	Direct disturbance to camps Drainage of swamps
3 rd order disturbances	Powerlines Logging of Sclerophyll Management burns Shooting
4 th order disturbances	Clearing resulting in fragmentation Wildfire
5 th order disturbances	Disease - lyssavirus Apiary Barbed wire fences Weed invasion
6 th order disturbances	Climate change

Likelihood of local extinction

No vegetation (i.e. potential forage trees - mostly Heath-leaved Banksia) will be lost. No potential roost habitat will be lost. Substantial potential forage habitat occurs to the north within the Cudgen Nature Reserve. The long term viability of this species, on a local level, will not be reduced by the proposed development. The Proposal is unlikely to accelerate the extinction of this species or place it at risk.

Little bent-wing bat

Extent of the local population

The NPWS database contained eighty two (82) records of this species within 10km of the site, and six (6) records from the CNR. The NPWS online database contained fifty-four (54) sightings of this species in the Tweed LGA.

Stages of the life-cycle affected by the proposed development

As part of the RFA process, Environment Australia (1999) conducted an analysis of the responses of forest fauna to various forms of land cover disturbance in the northeast region. The analysis identified breeding sites for Little bent-wing bat as consisting of limestone caves, where it usually occurs in association with the Common bent-wing bat. It congregates in high numbers in maternity roost (in 1000's). It also shelters in a range of artificial structures including culverts, drains, mines etc. The Little bentwing bat forages on flying insects in forested areas, predominantly swamp forest, moist eucalypt forest, rainforest and some dry forests.

The RFA analysis (Environment Australia 1999) ranked the significance of various forms of disturbance for the Little bent-wing bat, with the following results:

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1 st order disturbances	Clearing - habitat loss
2 nd order disturbances	Disturbance to camps/caves by limestone mining (cave collapse, altered air flow, noise, dust etc) and recreational activities.
3 rd order disturbances	Clearing - fragmentation Logging - loss of foraging habitat Frequent burning Altered hydrology/microclimate - old growth-regrowth
4 th order disturbances	Grazing Wildfire
	Pesticides
5 th order disturbances	Introduced predators

No potential roost or forage habitat will be lost. Substantial potential forage habitat occurs to the north within the Cudgen Nature Reserve. Additionally, this species is known to forage in urban environments. The long term viability of this species, on a local level, will not be reduced by the proposed development. The Proposal is unlikely to accelerate the extinction of this species or place it at risk.

d) Will the proposal adversely affect critical habitat?

Critical habitats are areas of land that are critical to the survival of a particular threatened species, population or ecological communities. Critical habitat areas are listed under the Threatened Species Conservation Act (1995). There is currently no habitat listed or recommend for any of the species or EECs found on the subjects site.

Assess the effect a net increase in the future resident population may have on the Cudgen Nature Reserve through likely increases in visitation and recreational use.

The Cudgen Nature Reserve Plan of Management (NPWS 1998) is part of a system of management developed by the National Parks and Wildlife Service. The system includes the National Parks and Wildlife Act, management policies, established conservation and recreation philosophies, and strategic planning at Corporate, Regional and District levels.

The Plan identifies Cudgen Nature Reserve as part of the largest remnant of native vegetation on the Tweed Coast. It is of local, regional and state significance for its natural values, coastal landscapes and provision of significant habitat for native wildlife. Nature conservation is the primary focus of management for the Reserve, with emphasis to be given to rehabilitation of disturbed lands and improvement of the Cudgen Lake ecosystem through an improvement in water quality.

The Plan lists specific objectives for Cudgen Nature Reserve which includes providing minimum impact public access to designated areas for appropriate nature based recreation so that the natural and cultural values of the Reserve are not threatened.

Cudgen Nature Reserve shares a common boundary with the proposed development. There is a strip of cleared land, currently used as a fire break, just inside the Cudgen Nature Reserve to the north of the proposed development. The proposed three storey building is set back 8m from the common boundary. The existing cleared land and the building set back are proposed as the Asset Protection Zone (APZ). There are six gates planned along the northern boundary fence, of the development, providing access directly into the cleared area of the nature reserve and ultimately to the beach.

This access may result in a range of potential impacts on the Cudgen Nature Reserve. These impacts are as follows:

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- Residents from the site may create walking tracks through the Cudgen Nature Reserve, resulting in direct loss of vegetation, reduced visitation by pollinators and dispersal vectors, changes in vegetation structure, and increased opportunities for weeds and disturbance-adapted pest species.
- Occupation of the site may increase the risk of fire release into the Cudgen Nature Reserve.
- Occupation of the site may cause an increase in local populations of invasive pest species (eg. rats, cane-toads, foxes) and invasive weeds. Residents of the site may dump rubbish and garden wastes into or near the Nature Reserve, encouraging pest species and allowing the release of weed species, parasites and diseases into the Cudgen Nature Reserve.
- Degradation of the vegetation in the Cudgen Nature Reserve by the introduction of weeds;
- Landscape species may escape to retained areas of vegetation; and
- Increased light and noise from the site may disturb the more reclusive species, in effect increasing the penetration of edge effects into the CNR.

The following measures are suggested to avoid impacts on the Cudgen Nature Reserve:

- Protection of the vegetated areas of the Cudgen Nature Reserve during the construction phase of the development. A temporary mesh fence will prevent machinery, construction rubbish and contractors from entering the Reserve;
- Signage should be erected - first temporary, then in consultation with NPWS. Consideration should be given to permanent signage prohibiting entry into the Nature Reserve except under conditions designated by the CNRPoM. Signage should have an educational theme illustrating the nature values of the reserve;
- The cleared area of the reserve should not be used for vehicular access or for storage of building or landscaping materials;
- Weeds should be controlled on the development site; and
- Known environmental weeds should be avoided in any landscaping of the development site.

In accordance with the CNRPoM the following mitigation measures should be considered:

- Prohibitive and educational signage at the edge of the Banksia woodland community within the Cudgen Nature Reserve;
- Information brochures about the reserve to promote public understanding and appreciation of the natural and cultural values of the reserve;
- The construction of one formalised path providing access to the beach in consultation with NPWS;
- The implementation of weed control programs and regeneration works; and
- Negotiations with NPWS about the responsibility of a fuel management regime in the APZ within the Cudgen Nature Reserve.

In accordance with Director General's requirements in relation to flora and fauna James Warren and Associates Pty Ltd have concluded that the proposal will maintain or improve biodiversity and will not reduce, on a local level, the long term viability or accelerate the extinction of any species or adversely affect critical habitat.

In relation to the effect a "net increase in the future resident population may have on the Cudgen Nature Reserve through likely increases in visitation and recreational use." It was concluded that the proposed development may have a minor impact on the Cudgen Nature Reserve. Avoidance and mitigation strategies have been suggested in compliance with the Cudgen Nature Reserve Plan of Management.

8.10 Noise

The Director General's Environmental Assessment Requirements require the applicant to address noise impacts, in particular road traffic noise, for future residents and appropriate mitigation measures.

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A Road Traffic Noise Assessment has been undertaken for the proposed development by TTM Consulting (GC) Pty Ltd (**Annexure 14**).

The subject site is primarily affected by road traffic noise from Tweed Coast Road which is controlled by the Tweed Shire Council. The road is currently a two lane, bitumen paved carriageway with a posted speed limit of 50km/h.

TTM have been advised by the Engineering Services Department of Tweed Shire Council that Tweed Coast Road will be upgraded and duplicated within the next ten years. It is expected that following the completion of the road upgrade, the speed limit would be raised to 60 km/h.

The existing traffic volumes for Tweed Coast Road were obtained from the Tweed Shire Council (correspondence dated 3/09/2009). Projected traffic volumes are based on an 8% compound increase per annum as advised by the Engineering Services Division of Council. The surveyed and projected traffic volumes are as follows:

- Surveyed (2009) Traffic Volumes: 10,000 vehicles AADT
- Projected (2020) Traffic Volumes: 23,316 vehicles AADT

Road traffic noise from Tweed Coast Road is assessed under the DECC (formally Environmental Protection Authority) of NSW. The applicable criterion is referenced from the '*Environmental Criteria for Road Traffic Noise 1999*' document.

Development Type 2 from Table 1 '*Road traffic noise criteria for proposed road or residential land use developments*' states new residential developments affected by arterial traffic noise be assessed to the following levels:

- 55 dB(A) L_{eq} (15 hour) (7am-10pm).
- 50 dB(A) L_{eq} (9 hour) (10pm-7am).

The above levels include 2.5 dB(A) for noise reflected from building façades.

The measured road traffic noise levels recorded on Friday 21/08/2009 are provided in the following table.

Road Traffic Noise Descriptor	Time Period	Measured Levels dB(A)
$L_{10,18hr}$	6am to midnight	62
$L_{eq, 15 hour}$	7am to 10pm	60
$L_{eq, 9 hour}$	10pm to 7am	55

The details of the predicted year 2020 road traffic noise levels based on traffic growth and the development layout are shown in the following table.

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Assessment Location (most exposed location)		Predicted SPL dB(A) in Year 2020 (Façade Corrected)		
Unit	Façade	L _{10, 18 hour}	Day L _{eq 15hr}	Night L _{eq 9hr}
1	West	65	63	58
2	North	58	56	51
3	North	57	55	50
4	North	56	54	49
5	West	43	41	36
6	West	43	41	36
7	South	59	57	52
8	West	63	61	56
9	West	68	66	61
10	North	60	58	53
11	North	59	57	52
12	North	58	56	51
13	West	46	44	39
14	West	46	44	39
15	South	61	59	54
16	West	65	63	58
17	West	69	67	62
18	North	62	60	55
19	North	62	60	55
20	North	61	59	54
21	West	51	49	44
22	West	51	49	44
23	South	62	60	55
24	West	66	64	59

Accordingly future road traffic noise levels are predicted to be above the criteria at a number of units of the proposed development.

A suitable form of acoustic treatment would be as per Table 1 of the DEC's criteria for road traffic noise which states '*...building materials and construction should be chosen as to minimise noise impacts*'. Therefore, building façades should be designed in accordance with AS3671 to achieve the internal noise limits outlined in AS2107.

The recommended building treatments to achieve the internal noise limits outlined in AS2107 are provided as follows:

Glazing

The glazing treatments detailed in Table 4 of **Annexure 14** below. The thickness of glass should not be reduced regardless of its RW rating. The installed glass may be equal or thicker to the specified glass only. Glazing specified with acoustic seals requires Schlegel Q-Lon, Raven, Lorient, or equivalent product. Mohair seals will not be accepted.

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Rooms specified with glazing treatments will require the provision of alternative ventilation such as air-conditioning so that windows and doors can be closed in order to exclude noise. Units/rooms that are not listed in Table 4 of **Annexure 14** below do not require any special glazing treatment ie. can be standard glazing.

Unit	Room	Glazing Thickness	Acoustic Seals	Min R _w
1	Living	4mm float	No	22
	Study	4mm float	No	22
	Bedroom 1	4mm float	No	22
	Bedroom 2	4mm float	No	22
2	Living	4mm float	No	22
	Bedroom 1	4mm float	No	22
7	Bedroom 2	4mm float	No	22
	Bedroom 3	4mm float	No	22
8	Living	4mm float	No	22
	Bedroom 2	4mm float	No	22
9	Living	4mm float	No	22
	Study	4mm float	Yes	27
	Bedroom 1	4mm float	Yes	27
	Bedroom 2	4mm float	No	22
10	Living	4mm float	No	22
	Bedroom 1	4mm float	No	22
15	Bedroom 2	4mm float	No	22
	Bedroom 3	4mm float	No	22
16	Living	4mm float	Yes	27
	Bedroom 2	4mm float	Yes	27
17	Living	4mm float	Yes	27
	Study	6mm float	Yes	29
	Bedroom 1	4mm float	Yes	27
	Bedroom 2	4mm float	Yes	27
18	Living	4mm float	No	22
	Bedroom 1	4mm float	No	22
23	Bedroom 2	4mm float	No	22
	Bedroom 3	4mm float	No	22
24	Living	4mm float	Yes	27
	Bedroom 2	4mm float	Yes	27

Wall Construction

Standard construction of the building is acceptable. Any lightweight construction should be similar to those detailed in the table below.

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Typical Wall Treatment	Insulation	Min Rw
Conventional masonry or brick veneer	-	40-45
OR		
EPS building system consisting of 40mm Expanded Polystyrene cladding with 8mm render externally, 70mm studs and 10mm plasterboard internally	-	35
OR		
Minimum 7.5mm fibre cement external cladding, 70mm studs, 10mm plasterboard internal	-	35
OR		
Linea Weatherboard Cladding externally, with 70mm studs and 10mm plasterboard internal	-	35
OR		
Hebel FAÇADE wall system. 75mm Hebel power panel, on 92mm studs, with 10mm plasterboard inside	-	45

Ceiling/Roof Construction

The proposed section of concrete deck roof would achieve the required RW rating without the need for additional treatment. The sheet metal roof should include a system capable of achieving an RW40 rating or higher. The typical ceiling/roof construction is detailed in the table below.

Ceiling/Roof Treatment	Insulation	Min Rw
Pitched sheet metal roof over 10mm thick plasterboard ceiling	Minimum 50mm glasswool batts or Tontine TSB-4 polyester insulation	40

Alternative Ventilation

To achieve the required internal noise levels in noise affected habitable rooms, doors and/or windows would need to be closed. Therefore, provision of alternative ventilation in accordance with BCA requirements should be included in these rooms. This could include air-conditioning, borrowed ventilation, mechanically assisted ventilation or other suitable methods.

Units/rooms that require the provision of ventilation include those listed in Table 4 of **Annexure 14**. The plant should not reduce the acoustic performance of the building.

In summary, given the projected traffic volumes of Tweed Coast Road the road traffic noise affecting the site is predicted to be above the criteria at the northern, southern and western facades of the development. However, based on the incorporation of recommendations detailed in the Acoustic Report attached as **Annexure 14**, the development is capable of complying with the noise criteria.

8.11 Socio Economic Impacts

The proposed development will remove an existing caravan park which was established on the subject site in 1962 by the proponent of the subject development. The existing park contains a total of 25 sites which are predominantly occupied by caravans with fixed annexes.

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Many of the existing caravans are utilised as occasional weekend accommodation by their owners. Only three sites are occupied by permanent residents. The park has limited facilities and generally does not provide a high level of amenity for visitors.

Investigations have been made into a redevelopment and improvement of the existing park however the limited site area (2,803m²), proximity to the bushfire hazard and current regulations applicable to caravan parks, make that proposal unviable. The existing caravan park and facilities are at the end of their economic life and the small size of the site does not enable a new caravan park to be developed which would achieve sufficient sites to be commercially viable.

The availability of low cost tourist accommodation on the Tweed Coast is unlikely to be adversely affected by the proposed development which will remove the 25 caravan park sites. In this respect Tweed Shire Council own and operate seven caravan parks located with 20 kilometres of the subject site, which provide approximately 1100 caravan and camping sites. In addition, several other large privately owned caravan parks are also located along the Tweed Coast.

The three sites which provide accommodation for permanent residents will be provided with a minimum of 12 months notice prior to the park's closure and assistance will be provided to relocate as recommended by the Caravan and Camping Industry Association. These terms are consistent with the resident's rights under the Residential Parks Act 1998 which requires 12 months notice to be given following the granting of development consent for the change of use. Given the availability of other Council and privately owned caravan parks in the locality, the assistance to be provided to the residents to be relocated and the limited number of permanent residents (three) it is unlikely that the closure of the park will present any adverse impact on the residents or the availability of such sites.

The proposed development will provide a total of 24 new residential units including 6 units which will be approved as "dual use" to facilitate residential and/or tourist accommodation uses. The proposed development is consistent with the intended development of the site in accordance with the current zoning and the site specific controls of the recently adopted Tweed DCP 2008, Section B19 - Bogangar/Cabarita Beach Locality Plan.

The proposed development will provide direct investment into the locality of \$8.895 million with additional indirect investment associated with services such as real estate agents' fees generated during the marketing of the project as well as ongoing contributions to the local economy during the operational phase by way of the Council rate base and household and tourist expenditure.

In summary, the site is constrained in terms of its ability to provide a feasible redevelopment of the existing caravan park use. It is considered that the removal of the existing 25 caravan sites is not significant in the context of the availability of other caravan parks in the area. The proposed development comprising a mix of residential and tourist accommodation units will provide an appropriate replacement to the existing caravan park, in accordance with the contemporary planning controls that apply to the site. The proposed development will provide a net positive social and economic impact to the community.

9.0 CONSULTATIONS

On 14 September 2009 the following State Agencies were consulted. Issues raised in responses received are addressed in the following sections. Copies of responses received are contained at **Annexure 23**.

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9.1 State Agencies

TABLE 15 – STATE AGENCY CONSULTATION RESPONSES		
AGENCY	ISSUE	COMMENTS
Tweed Shire Council	On 17 September 2009 Council advised that it has no further issues or assessment requirements to add to those contained in Council's letter to the Department of Planning dated 21 May 2009 which identified Council's key issues and assessment requirements. Those requirements were generally incorporated into the DGEARs.	Relevant issues raised by Council contained in the DGEARs have been addressed in this Report.
Department of Environment, Climate Change and Water NSW	The Department responded by letter dated 30 September 2009. The Department has advised that it has previously been consulted by the Department of Planning in relation to this proposal and the Department's issues were addressed in the DGEARs.	All relevant matters raised by the Department have been addressed in this Environmental Assessment.
NSW Rural Fire Service	Response dated 23 October 2009. The Rural Fire Service advised in addition to matter raised in the DGEARs that details of maintenance arrangements for the APZ located north of the site will be maintained in perpetuity. In addition the RFS has requested that the applicant demonstrate that radiant heat levels of greater than 10kw/m ² will not be experienced by occupants or emergency service workers entering or exiting a building.	The additional matters raised by the RFS have been addressed in this Environmental Assessment.
Department of Environment, Climate Change and Water NSW (Office of Water)	The Department's Office of Water (formerly known as DWE) responded by letter dated 29 September 2009. The Office of Water advised that it has previously been consulted by the Department of Planning in relation to this proposal and the Department's issues were addressed in the DGEARs.	All relevant matters raised by the Office of Water have been addressed in this Environmental Assessment.
Roads and Traffic Authority	The RTA responded by letter dated 13 October 2009. The RTA advised that on the basis that the proposal will relocate the existing access from Tweed Coast Road to Cypress Crescent, the RTA is satisfied and raises no objection.	The RTA raises no objection to the proposed development
Northern Rivers Catchment Management Authority	No response received.	No response received.

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TABLE 15 – STATE AGENCY CONSULTATION RESPONSES		
AGENCY	ISSUE	COMMENTS
Relevant Local Aboriginal Land Council/s and other Aboriginal community groups	Relevant Local Aboriginal Land Council/s and other Aboriginal community groups were consulted by Everick in the preparation of their Cultural Heritage Assessment. On 11, 12 and 13 June 2009 public notices were placed in the Tweed Daily News newspaper inviting Aboriginal persons/organisations with cultural heritage interests in the area to advise Everick Heritage Consultants. NSW Native Title Services, the cultural heritage unit of the DECCW and TSC were also notified.	An onsite meeting was arranged for 25 June 2009 and was attended by representatives of the Aboriginal Community. Copies of the Draft Cultural Heritage Assessment Report were distributed to the Aboriginal stakeholders on 26 August 2009 and a response was received from one of the stakeholders. Full details of Aboriginal community consultation are contained in Section 2 of the Cultural Heritage Assessment at Annexure 11 .
Telstra	Response received 22 August 2009. Telstra has advised that it maintains existing network adjacent to the site however the network is currently not sufficient to meet likely demands of the development. However Telstra has incorporated the forecast telephone service demand for the development into overall planning processes for the area and has planned to roll out upgrades in telecommunications infrastructure as growth occurs.	This is a standard Telstra response. The provision of telecommunication services will be subject to negotiation and a commercial agreement with Telstra closer to the development commencement.
Country Energy	No response received.	No response received.

9.2 Community Consultation

No formal community consultations have been undertaken to date however it is intended, if required, to arrange and conduct a public meeting during the formal public exhibition process, (or immediately thereafter), for the Major Project Application. This will enable stakeholders, residents and other interested parties to clarify any issues and provide comments on the project.

10.0 SUMMARY AND CONCLUSION

Prior to finalising the project design, a Detailed Site Opportunities and Constraints Analysis was undertaken including biophysical and geophysical site surveys and analysis.

In addition, the existing statutory planning controls applicable to the site have been considered following which the development proposal for a mixed use residential and tourist accommodation project comprising 24 units in a three storey building with basement car parking has been developed. That proposal is considered to achieve the optimal development outcome for the site having regard to the site's opportunities and constraints, the established character and amenity of the area and the commercial viability of the development.

Whilst it may be possible to achieve higher densities on the site, such a proposal would be incompatible with the established low to medium density residential character and amenity of the area and would also potentially result in greater impacts on infrastructure capacity and the natural environment.

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In summary, this Environmental Assessment concludes that the project will not result in any significant adverse impact on the environment and is consistent with the principles of ecologically sustainable development. The project is also consistent with the public interest in that it implements existing statutory planning controls and in particular the objectives of the Far North Coast Regional Strategy insofar as it will contribute towards additional dwellings to meet the identified demands within the timeframes identified within that Strategy.

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