

Planning Proposal under s55 of the EP&A Act

Lot A DP374315, Lot 4 DP615261

Ocean Drive, Lake Cathie



**PORT MACQUARIE
HASTINGS**

Table of Contents

- Property Details 1
- Applicant Details 1
- Land owner 1
- Background 1**
- Part 1 - Objectives or Intended Outcomes 13**
- Part 2 - Explanation of Provisions 14**
- Part 3 – Justification 15**
- Section A - Need for the planning proposal 15**
 - Is the planning proposal a result of any strategic study or report? 15
 - Is the planning proposal the best means of achieving the objectives or intended outcomes, or is there a better way? 15
 - Is there a net community benefit? 19
- Section B - Relationship to strategic planning framework 31**
 - Is the planning proposal consistent with the objectives and actions contained within the applicable regional or sub-regional strategy (including the Sydney Metropolitan Strategy and exhibited draft strategies)? 31
 - Is the planning proposal consistent with the local council’s Community Strategic Plan, or other local strategic plan? 32
 - Is the planning proposal consistent with applicable state environmental planning policies? 33
 - Is the planning proposal consistent with applicable Ministerial Directions (s.117 directions)? 53
- Section C - Environmental, social and economic impact 59**
 - Is there any likelihood that critical habitat or threatened species, populations or ecological communities, or their habitats, will be adversely affected as a result of the proposal? 59
 - Are there any other likely environmental effects as a result of the planning proposal and how are they proposed to be managed? 64
 - How has the planning proposal adequately addressed any social and economic effects? 88
- Section D - State and Commonwealth interests 89**
 - Is there adequate public infrastructure for the planning proposal? 89
 - What are the views of State and Commonwealth public authorities consulted in accordance with the gateway determination? 90
- Part 4 – Community Consultation 91**
- Contact Details: 91**
- Attachments: i**

Executive Summary

Area 14 -1B is part of the Area 14 – Urban Investigation Area that has been identified as suitable for investigation for urban uses since at least the adoption of the Hastings Urban Growth Strategy in 2002.

The UIA was subject to more detailed planning in the preparation of the Area 14 Urban Design Master Plan in 2004.

Area 14-1B forms most of the eastern boundary of the UIA and is adjoining Littoral Rainforest No: 116 and Rainbow Beach.

The proximity to the rainforest imposes a range of constraints to development of the site but also provides an opportunity to provide formal mechanisms to ensure its ongoing maintenance and protection.

The proposal to develop alongside the littoral rainforest has resulted in a substantial amount of investigation and assessment particularly to demonstrate the merit of relaxing the default 100m buffer to 40-60m. The ecological and groundwater studies provide the justification for relaxing this requirement. Council is satisfied that the proposal, with some minor amendments to the fencing and revegetation proposal will provide adequate ongoing protection of the rainforest.

The proponent has lodged a Part 3A Concept Plan Application and Project Application for Stage 1 – Environmental Works with the Department of Planning. The application requires a planning proposal to rezone the site to permit those uses that are currently prohibited.

This is the subject of this Planning Proposal.

Planning Proposal

Proposal	Proposal to Rezone land from RU1 (Primary Production) to B4 (Mixed Use), R3 (Medium Density Residential), R1 (General Residential), RE1 (Public Recreation), E3 (Environmental Management) and E2 (Environmental Conservation).
Property Details	Lot A DP374315, Lot 4 DP615261 Ocean Drive, Lake Cathie
Applicant Details	King and Campbell
Land owner	Seawide Pty Limited and Milland Pty Limited

Background

The [Hastings Urban Growth Strategy \(HUGS\) 2001](#) identified 'Area 14' as an urban investigation area. 'Area 14' is located between the existing villages of Lake Cathie and Bonny Hills and is also been referred to as 'Rainbow Beach'.

The area was identified as suitable for urban investigation in both the Mid North Coast Regional Strategy and the Council's Draft Urban Growth Management Strategy.

An [Urban Design Master Plan](#) for Area 14 was prepared by Diecke Richards and adopted in 2003 with some revisions made in 2004. The Master Plan broadly examined the constraints and opportunities of the area and proposed a land use pattern that responded to those (Refer Figure 1).

There are a number of sub precincts within Area 14 that have been identified as suitable in the short term for urban development (refer Figure 2). The remaining areas of Area 14 are either heavily constrained or identified in the longer term for investigation.

The sub precincts are a result of landowners and the external planning consultants that represent them rather than any proposed staging plan. These sub-precincts are referred to as:

1. Area 14 – 1A.
2. Area 14 – 1B.
3. St Vincent's Foundation (SVF).

Detailed investigation of development in each of the precincts has occurred since the Master Plan was adopted. There now exists a comprehensive body of technical study that provides a sound basis to progress the rezoning of each precinct to the preparation of a Planning Proposal and the subsequent public exhibition and consultation with the agencies.

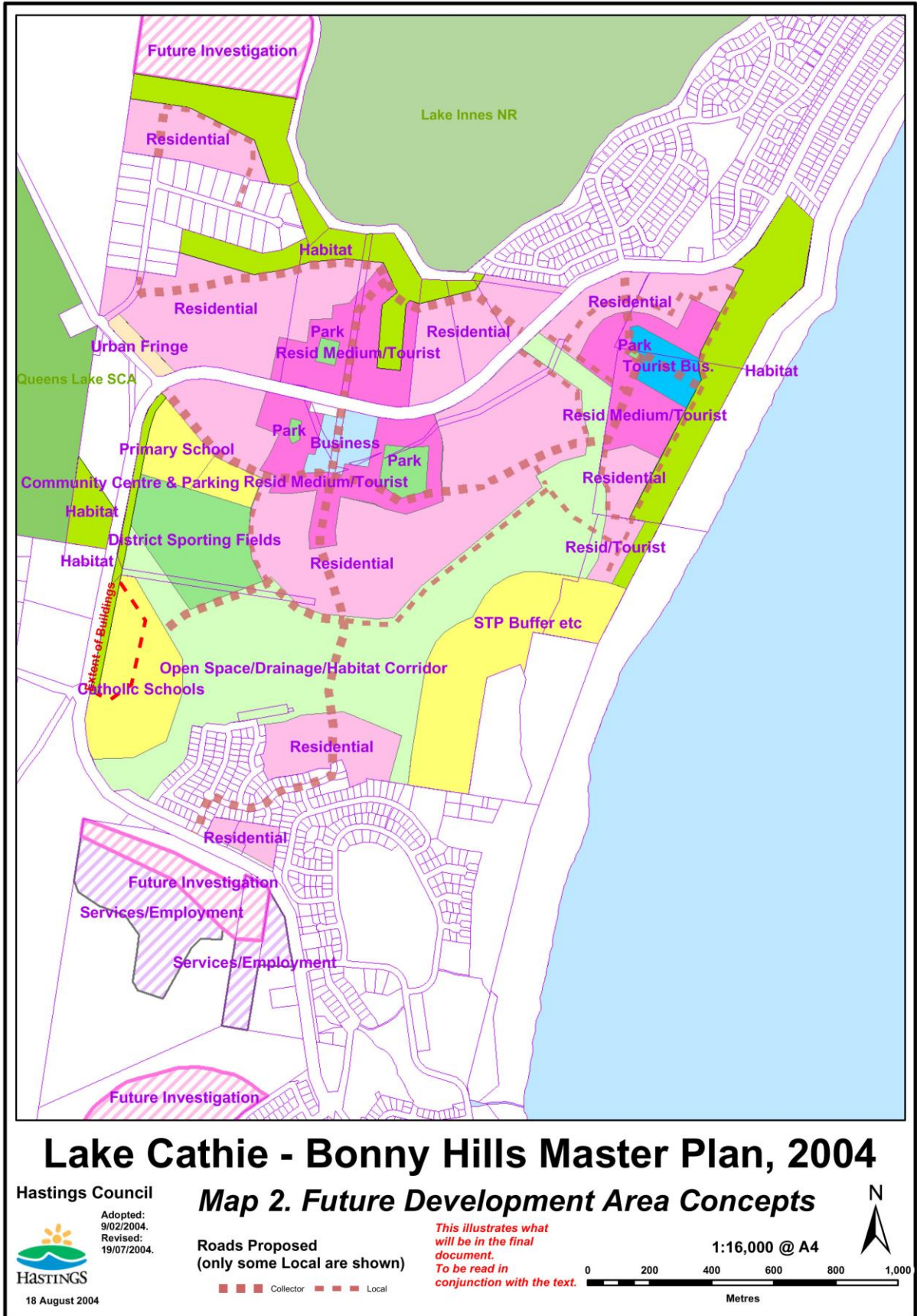


Figure 1: Area 14 Master Plan.

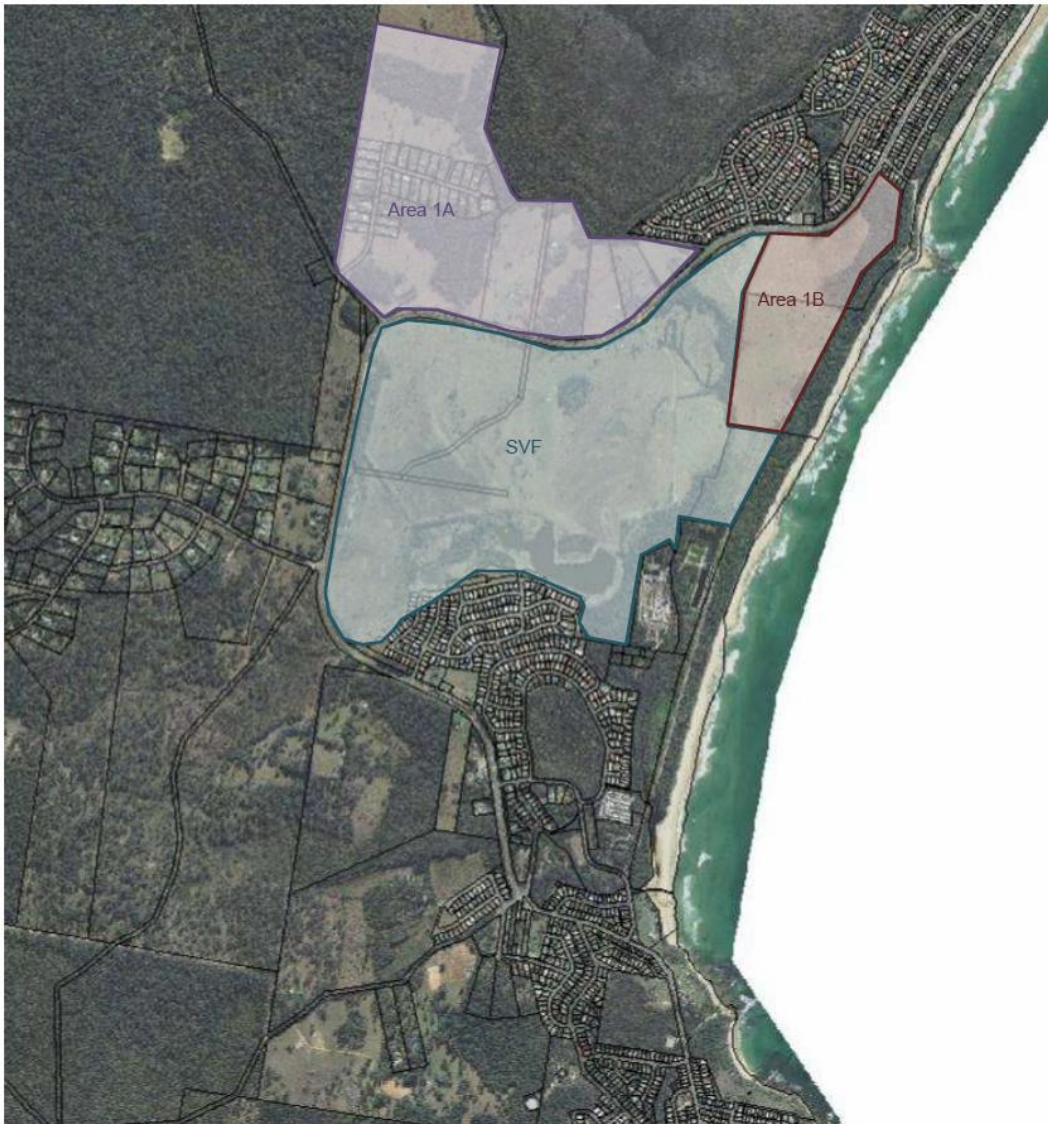


Figure 2: Sub Precincts 1A, 1B and SVF.

Status of Area 14 – 1B and relationship to other approval processes

Development at Area 14 – 1B is subject to assessment under Part 3A Major Infrastructure and Other Projects of the Environmental Planning and Assessment Act 1979. The proponent has lodged two (2) applications under this Part.

1. The Concept Plan Application delineates land use and proposes a mixture of residential, environmental protection, mixed use zones and a small area of public recreation.
2. The concurrent Project Application is to permit environmental works such as revegetation of the environmental management areas, fencing and a public access through the littoral rainforest to Rainbow Beach.

The Department requires that an application to rezone the land under Part 3 of the Act run concurrently with the Concept Plan and Project Applications. It has also indicated that it will not place the Part 3A applications on public exhibition until a Gateway Determination under s56 of the Act has been issued.

This is the purpose of this planning proposal.

The Part 3A includes works on the adjacent crown reserve including the construction of an accessway. There is no need to rezone the crown reserve and therefore it is not included in this planning proposal despite references made throughout that document to works occurring in that reserve.

The planning proposal will be supported by a Voluntary Planning Agreement (VPA) for the Environmental Works and a Development Control Plan. A [Draft Heads of Agreement](#) accompanies the Part 3A applications.

The rezoning of Area 14 requires a coordinated approach on a range of issues including infrastructure, road works and environmental management. These have been addressed by various mechanisms including the VPA and draft Development Control Plan. In relation to Area 1B and SVF, a [memorandum of understanding](#) exists that seeks to promote cooperation between the landowners of each of the sub precincts on the following key issues:

- Road access from Ocean Drive across SVF land to the 1B properties;
- Road access to the SVF eco-tourist land across 1B;
- Restoration of the natural flow in Duchess Gully from SVF land across 1B.
- A range servicing/infrastructure issues (water supply, sewerage, drainage roads) along the common boundaries between the parties;
- The connection of sewerage services to the Lake Cathie Bonny Hills Sewerage Treatment Plant (STP) though the SVF land.

The draft MOU sets up the structure for future, more detailed landowner agreements as the planning and construction of the two developments proceeds.

Status of sub precincts – 1A and SVF.

An application to rezone Area 14 -1A is in progress and is expected to be on exhibition in October 2010 and completed by the end of the year.

Area 14 - SVF is also subject to applications under Part 3A of the *Environmental Planning and Assessment Act 1979*. Area 14 SVF has two concurrent Part 3A applications:

1. Concept Plan Application for environmental works, general and medium density residential development, a 'hilltop' village and open space.
2. Project Application (Stage 1 Environmental Works) to retain all native vegetation on the western side of the rainforest, the revegetation of a buffer of between 40-60 metres and fencing of the revegetated area.

These Part 3A applications are currently with the Department of Planning.

Standard Local Environmental Plan 2010

Council is currently finalising its comprehensive LEP that has been prepared in accordance with the Standard Instrument Order. The timing of when the LEP will be adopted is unknown therefore it is proposed that a "stand alone" LEP in the Standard Instrument Order format be prepared for this site. This is consistent with the advice Council has received from the Department on this matter.

Area 14 Working Group

A working group of landowners and Council Officers has been meeting since 2007. The working group promotes a working relationship between the landowner representatives and also the landowner representatives and the Council.

Site

The site is described as Lot 4 on DP615261 (16.38 ha) and Lot A on DP 374315 (17.04 ha) Ocean Drive, Lake Cathie. The site has a total combined site area of 33.42ha.

Table 1: Area 14-1B

Site	Area
Lot A DP374315	17.04ha
Lot 4 DP615261	16.38ha
Total Area	33.42ha

The site itself is generally located on the southern fringe of the Lake Cathie township and on the northern extent of the existing residential development associated with the Bonny Hills.

The site adjoins SEPP 26 Littoral Rainforest No: 116 that forms the eastern boundary of Lot A. Approximately 3.2ha of the rainforest is contained within Lot 4. A further 11.24ha of the site is within 100 metres of the SEPP 26 boundary. The littoral rainforest forms one of the key constraints to the development on the site and subject to extensive investigation.

With the exception of the littoral rainforest and a small amount of riparian vegetation along Duchess Creek the site is cleared pasture.

The site is gently undulating and visible from both the southern and northern approaches along Ocean Drive. The site is not visible from the Rainbow Beach due to the height and density of the existing Littoral Rainforest and the height of the dunal system. Further detailed view analysis is provided at page 40.

Duchess Creek traverses the south-western corner of the site.

The site adjoins a single lot that is generally residentially zoned on the southern and western boundaries. That property is referred to as St Vincent's Foundation (SVF) and there is significant interactions between development on that site and the subject site. This is discussed in more detailed under the relevant sections of this planning proposal.

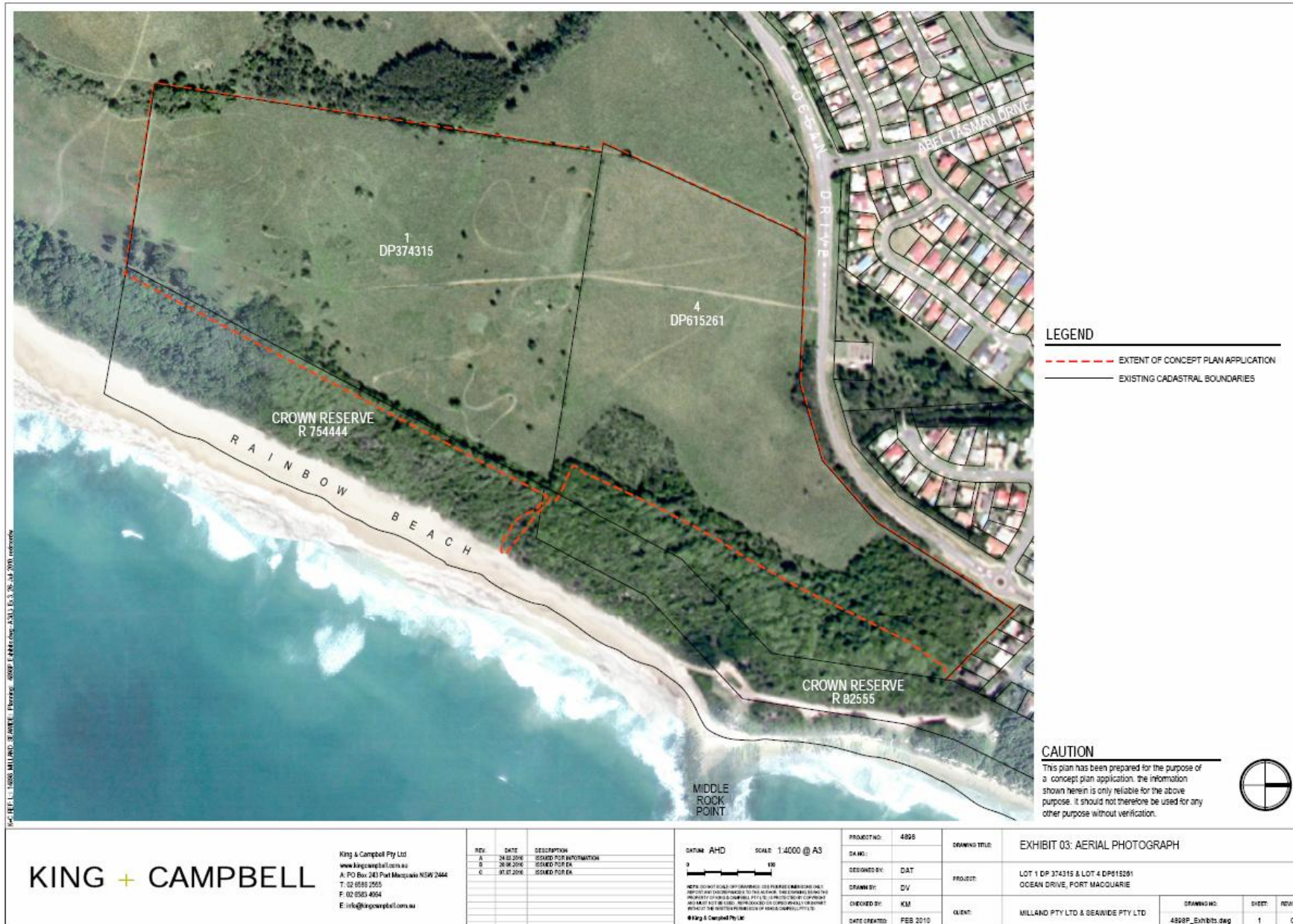


Figure 3: Site aerial



Plate 1: View south along Ocean drive towards the site.



Plate 2: View from Rainbow Beach towards the site.



Plate 3: Track through Littoral Rainforest.



Plate 4: Track through Littoral Rainforest.



Plate 5: Existing track through Littoral Rainforest to Rainbow Beach – beach side.



Plate 6: View along Rainbow Beach towards Middle Rock.



Plate 7: View south from the track entry on Rainbow Beach.



Plate 8: View south east from the existing medical centre on Ocean Drive towards to the site.



Plate 9: View south from Ocean Drive.



Plate 10: View east along Ocean Drive.



Plate 11: View along southern boundary of Lot A towards existing vegetation within Duchess Gully.



Plate 12: View from common boundary of Lot 4 and Lot A, looking south towards North Brother Mountain.

Summary of the constraints

A constraints analysis have been undertaken by the proponent as part of the preliminary investigations of the development potential of the site. This has been generally reproduced in Table 2. The site analysis references the “Concept Plan” as it is included in that application.

The proponents have prepared a [site analysis and development response plan](#) which illustrates the constraints and opportunities on the site and the proposed development response.

Table 2: Site constraints and opportunities.

Site Constraints	Site Opportunities	Proposed Development Response
<p>1. The Littoral Rainforest No.116 (SEPP 26), recognising:</p> <ul style="list-style-type: none"> the State significance of the rainforest; edge effects, including the existing erosion and weed infestation adjacent to and within the rainforest as a result of uncontrolled pedestrian access from the existing residential community through to Rainbow Beach the potential changes to the rainforest species as a result of changes to the ground water table; the potential effects of bushfire on the rainforest. 	<p>The Concept Plan will provide an opportunity to protect, monitor and preserve the rainforest in its natural state for future generations. This opportunity can be achieved with the provision of a suitably designed buffer which recognises the various environmental demands placed on the rainforest by both natural and man-made forces.</p> <p>The buffer should:</p> <ol style="list-style-type: none"> Retain all existing vegetated areas and provide for regeneration; Enable casual surveillance of the rainforest edge and foster a sense of 'ownership' by the local community; Include appropriately designed stormwater facilities which will ensure the maintenance of the groundwater table reduction of nutrient loads; Incorporate appropriate plant species which will minimise the threat of bushfire to the rainforest; Restrict and control public access to designated access points. 	<ol style="list-style-type: none"> Retain existing vegetated areas adjoining the rainforest and protect the area with a 40-60m revegetation area and the provision of a human exclusion fence; Create a public road frontage and pathway / cycleway to the rainforest/regeneration vegetation. Incorporate biofiltration units and detention basins to ensure the maintenance of the groundwater table, in accordance with the detailed requirements of Martens & Associates. Implement a Revegetation Management Plan to ensure Littoral Rainforest species are used to minimise the threat of bushfire to the rainforest. Provide for pedestrian access through the rainforest with the provisions of a boardwalk style path with self closing gate in lieu of the existing informal walking track. Provide public facilities adjacent to the walkway (including car park and "pocket park") to compliment public access.
<p>2. The existing visual quality of the coastline, including:</p> <ul style="list-style-type: none"> existing views onto the site from Rainbow Beach; and existing views from the site to surrounding geographic features, including the Pacific Ocean, North Brother Mountain and Jolly Nose Mountain. 	<p>Through recognising the importance of retaining high levels of visual quality, appropriate built form controls can be incorporated at the outset to development of the site. The principles for development in this regard should:</p> <ol style="list-style-type: none"> Ensure that proposed development cannot be viewed from Rainbow Beach. In particular ensure that the future development of the 'hill-top' village at three to four storeys in height will not comprise the visual quality of the site when viewed from Rainbow Beach. Create development opportunities which will enable the existing views to surrounding geographical features to be retained from public vantage points. 	<ol style="list-style-type: none"> Sight lines from Rainbow Beach across the site have been determined by survey. The exhibits confirm that due to the height of the fore dunes and existing mature vegetation four storey development cannot be viewed from Rainbow Beach. The proposal will enable off site views to be retained through the following development options: <ol style="list-style-type: none"> Locate collector road from Ocean Drive on prominent ridgeline create a landscaped arrival focus point ('Village Square') at the intersection of the collector road with the Hill-Top Village precinct street alignments to retain view to the east (ocean).
<p>3. Aboriginal heritage, including</p> <ul style="list-style-type: none"> The existing scarred tree within the Crown reserve 	<p>The proposal will enable the ongoing protection of the identified object at the undisclosed location (at the request of the LALC), through restricting public access through the rainforest.</p>	<p>The following built form controls will ensure this opportunity is realised:</p> <ol style="list-style-type: none"> Create a 'human exclusion' fence adjacent to the rainforest buffer Restrict public access through the rainforest to the designated elevated board walk.
<p>4. Potential acid sulfate soils. PMHC acid sulfate soils mapping has identified class 4 and 5 land along the southern boundary of Lot A</p>	<p>The Concept Plan will allow a restriction on development in this location.</p>	<p>Prepare an Acid Sulfate Management Plan in accordance with ASSMAC guidelines.</p>
<p>5. Potential bushfire.</p>	<p>The Concept Plan will enable protection of both the existing rainforest and the proposed residential community from the threat of bushfire.</p>	<p>Create an APZ as part of the buffer treatment to the rainforest, to incorporate:</p> <ol style="list-style-type: none"> The use of rainforest species within the regeneration area; A perimeter road with adjacent cycleway/footpath and open space area. The provision of this buffer as part of the public domain will ensure its ongoing maintenance.
<p>6. Potential road traffic noise from Ocean Drive</p>	<p>Implement acoustic / landscape treatment to Ocean Road frontage</p>	<p>Address road noise in a coordinated manner for the entire Area 14 precinct. Road noise will be addressed to protect future residents of the area and to maintain a high level of amenity and function for the corridor.</p>
<p>7. Coastal erosion, including</p>	<p>Ensure urban development is not carried out within the zone of wave</p>	<p>No urban development is to occur east of the human exclusion fence.</p>

Site Constraints	Site Opportunities	Proposed Development Response
<ul style="list-style-type: none"> Zone of wave impact and reduced foundation capacity (SMEC) 	impact and reduced foundation capacity, having regard to the present, 50 year and 100 year scenarios.	
8. Stormwater runoff, including: <ul style="list-style-type: none"> To the east (towards the Littoral Rainforest) To the north (Ocean Drive; and To the south-west (Duchess Creek) 	Implement a 'best-practice' treatment train for each scenario	Provide the following site specific facilities: <ol style="list-style-type: none"> Three biofiltration/detention basins adjacent to the Littoral Rainforest to ensure maintenance of the groundwater table, in accordance with the detailed requirements of Martens & Associates. One detention basin, with biofiltration, to detain and treat existing stormwater flows to the north. (c) One biofiltration unit adjacent to Duchess Creek to manage stormwater flows and ensure minimal impact downstream and on the 1:100 year flood event.
9. Potential flooding, including <ul style="list-style-type: none"> Local inundation from Duchess Gully during storm events; the effects of climate change and sea level rise. 	Development of site provides flood free access for subject and adjoining properties during PMF conditions.	Provide required fill adjacent Duchess Gully (fill area of 2,970m ² and fill volume of 470m ³).
	<ul style="list-style-type: none"> Provide diverse housing choice in an area of high quality and amenity; Provide opportunities for employment and tourist uses. 	<ul style="list-style-type: none"> Provide medium density residential areas adjacent to the Hill Top Village and adjacent to open space/ areas of high visual quality through appropriate zoning. Incorporate Hilltop Village into Concept Plan to create a local commercial/tourist residential precinct in an area of high amenity.
	<ul style="list-style-type: none"> Improve public access to foreshore and existing and proposed urban areas. 	<ol style="list-style-type: none"> Link to the existing formed pathway in Ocean Drive and proposed pedestrian/cycleway networks on adjoining properties through the creation of new cycleways and pathways in accordance with the coordination plan for the locality (a) (b) provide a formalised public access path through the rainforest to Rainbow Beach along existing pedestrian tracks.
	<ul style="list-style-type: none"> Provide quality open space areas. 	Open space areas to be provided in the form of foreshore reserves, local pocket park and village square.

The preferred development option for the site has been determined having regard to:

- The state significance of Littoral Rainforest No. 116;
- The integration with the planned development of the Area 14 Urban Investigation Area;
- The existing visual and aesthetic qualities of the site and locality; and
- The natural hazards associated with the site.

Therefore the development footprint has been determined through understanding the site constraints, recognising the site opportunities and developing options to best manage the constraints and opportunities as set out in Table 2.

The primary built form outcomes as a result of these considerations include:

- The extent and makeup of the vegetated buffer to the rainforest;
- The provision of a public perimeter road and cycleway/pathway as part of the buffer treatment;
- The location of the main collector road from Ocean Drive;
- The siting of the Hilltop Village and Village Square; and
- The location, size and number of the stormwater treatment facilities.

With the determination of the above, consideration was then given to the following:

- The overall footprint of the Hilltop Village;
- The location and footprint of the medium density residential components;
- The location of road linkages to adjoining proposed residential areas;
- The location and orientation of the internal access roads, pedestrian and cycleway networks; and
- The provision and integration of the open space network.

The Proposal

At present the site is zoned RU1 - Primary Production that prohibits the proposed uses. Therefore the site must be rezoned in order to enable the proposed range of land uses. This planning proposal is necessary to rezone the land from RU1 – Primary Production to a mixture of R1 – General Residential, R3 – Medium Density Residential, B4 – Mixed Use, RE1 – Public Recreation, E3 – Environmental Management and E2 – Environmental Conservation.

The site is to be developed in stages. The Part 3A - Project Application that runs concurrently with the Concept Application is the first stage of the proposal and includes the following:

- I. Environmental Works associated with the SEPP 26 Littoral Rainforest to be undertaken to satisfy the aims and objectives of SEPP 26. The environmental works, to be undertaken on part Lots 1 and 4 and part Crown Reserves R82555 and R754444, will occupy approximately 7.54ha of the subject properties and incorporate fencing, weeding, regeneration and revegetation works and formalisation of the existing beach access with a boardwalk.

The proponents may seek from the Department approval that future project applications be delegated to the Council. Future project applications under Part 3A of the Act will otherwise be required for any future development such as the subdivision of the land or construction of the 'hill top' village.

The key elements of the overall development (that will be subject to future project or development applications) are:

- I. The environmental works associated with Duchess Gully in the SW corner of Lot A including regeneration/revegetation and stormwater treatment (5,400m²).
- II. The subdivision of Lot A and Lot 4 to provide for the following land use concepts:
 - Low density residential areas to occupy approximately 15.74ha of Lots 1 and 4;
 - Medium density residential areas to occupy approximately 3.29ha of Lots 1 and 4. Assuming a 50/50 split between 2 and 3 storey buildings at a density of 25 dwellings per hectare, this will create approximately 62 dwellings.
- III. A 'Hill-Top Village', comprising 3-4 storey part residential, commercial and tourist development to occupy approximately 3ha of Lots 1 and 4. This area contains the proposed village square which occupies approximately 2,750m² of the Hilltop Village. Based on commercial/tourist floor space at ground level with three storeys of residential/tourist uses above, yields of approximately 26 ground level commercial / tourist units and approximately 120-140 medium-sized residential / tourist residential apartments above are expected.

(Note: These yield figures have been provided by the proponent and are based on basement parking which not be able to be achieved due to restrictions on excavation imposed to maintain the groundwater regime of the site.)

- IV. Open space works, to provide approximately 2.63ha of open space:
 - A 'pocket park' (990m²) adjacent to the parking area and beach access;
 - A small area of public recreation including the parking area and beach access and may include bike rack, outdoor shower or other facilities associated with beach use.
 - A 'village square' (2,750m²) as an entry statement to the hilltop village. While this area is proposed to be zoned Mixed Use B4, it is intended that the village square be dedicated for public uses; and
 - A buffer to Duchess Creek; and
 - An access and circulation network of roads and pedestrian/cycle paths.

Part 1 - Objectives or Intended Outcomes

To enable the development of land at Lot A DP374315, Lot 4 DP615261, Ocean Drive for urban purposes, environmental management and public recreation uses.

To protect and enhance Littoral Rainforest No: 116 on the subject land and the adjoining crown reserves.

To address the impacts of coastal erosion caused by sea level rise from climate change in accordance with the NSW Coastal Planning Guideline: Adapting to Sea Level Rise 2010.

To provide access to and promote linkages between the coastal assets of Port Macquarie-Hastings Local Government Area.

Part 2 - Explanation of Provisions

A Standard Instrument LEP in the form shown at attachment 1 (to which the standard instrument is attached) and with accompanying maps as shown at attachment 2 (to which the proposed maps are attached).

Part 3 – Justification

Section A - Need for the planning proposal.

Is the planning proposal a result of any strategic study or report?

Area 14 has been formally identified as suitable for investigation for urban purposes since at least the adoption of the Hastings Urban Growth Strategy (HUGS) in 2001 (refer Figure 4).

The site is specifically identified for urban purposes in the Mid North Coast Regional Strategy as Proposed Future Urban Release Area (Figure 5) and most recently in the Draft Urban Growth Management Strategy (Figure 6).

The [Area 14 - Master Plan](#) further examined the broad constraints and opportunities for urban development and set the framework for more detailed investigations.

This is the strategic basis for supporting the detailed investigation of Area 14 – 1B for urban purposes and the justification for pursuing a planning proposal to rezone the site.

Is the planning proposal the best means of achieving the objectives or intended outcomes, or is there a better way?

The site is currently zoned RU1 – Primary Production which prohibits the development of the site for urban purposes. The proposed zoning plan is consistent with the Mid North Coast Regional Planning Strategy, the Draft Urban Growth Management Strategy, generally consistent with the Area 14 Master Plan and is supported by a substantial amount of technical investigation.

The site is identified as Proposed Urban Area in the Mid North Coast Farmland Mapping Project.

The use of the site for urban purposes cannot occur unless the area is rezoned. Providing adequate protection to the littoral rainforest, in particular the establishment of the buffer; cannot be secured by environmental protection and management zones without the rezoning.

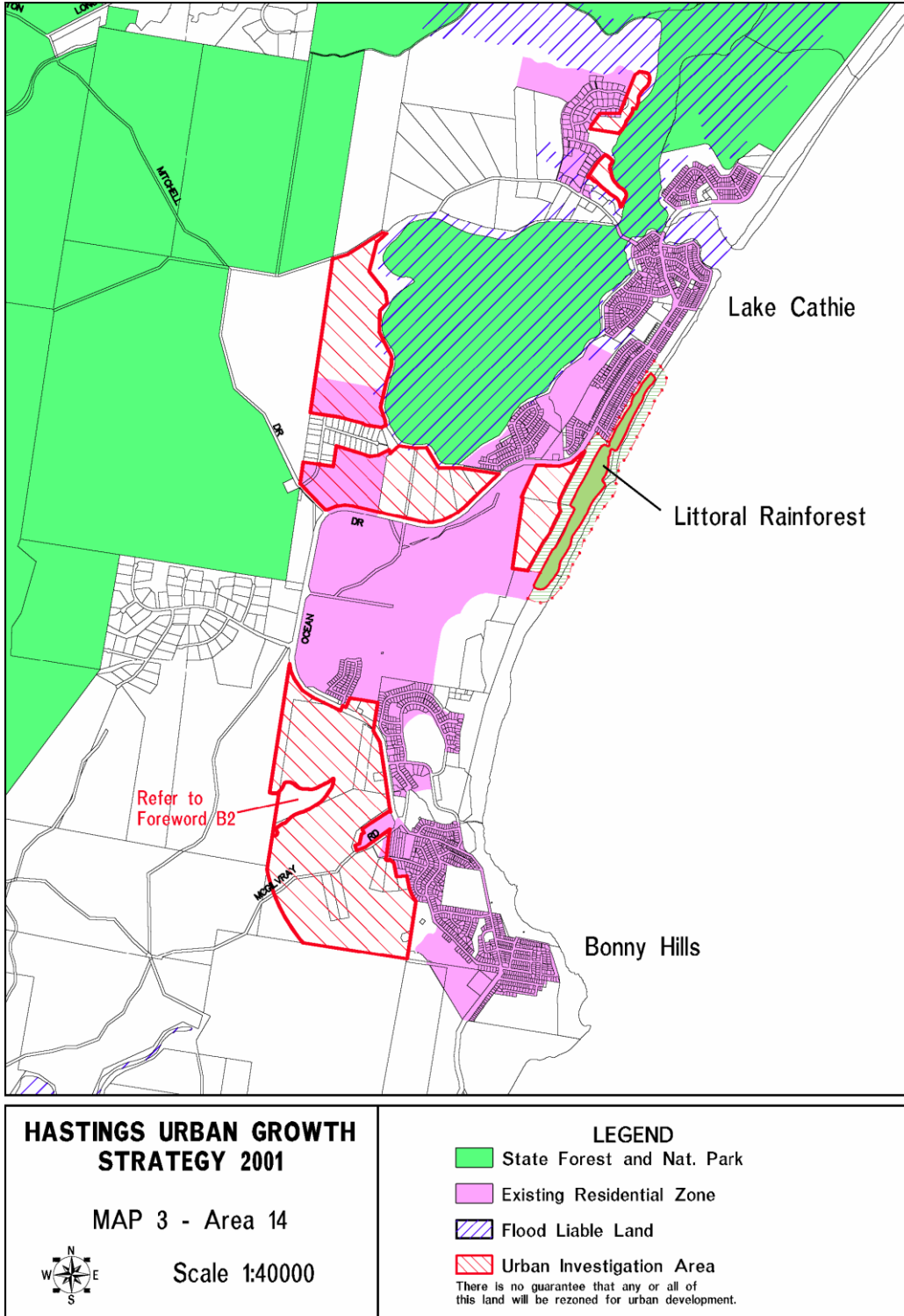


Figure 4: Extract from Hastings Urban Growth Strategy that identifies Area 14 Urban Investigation Areas.

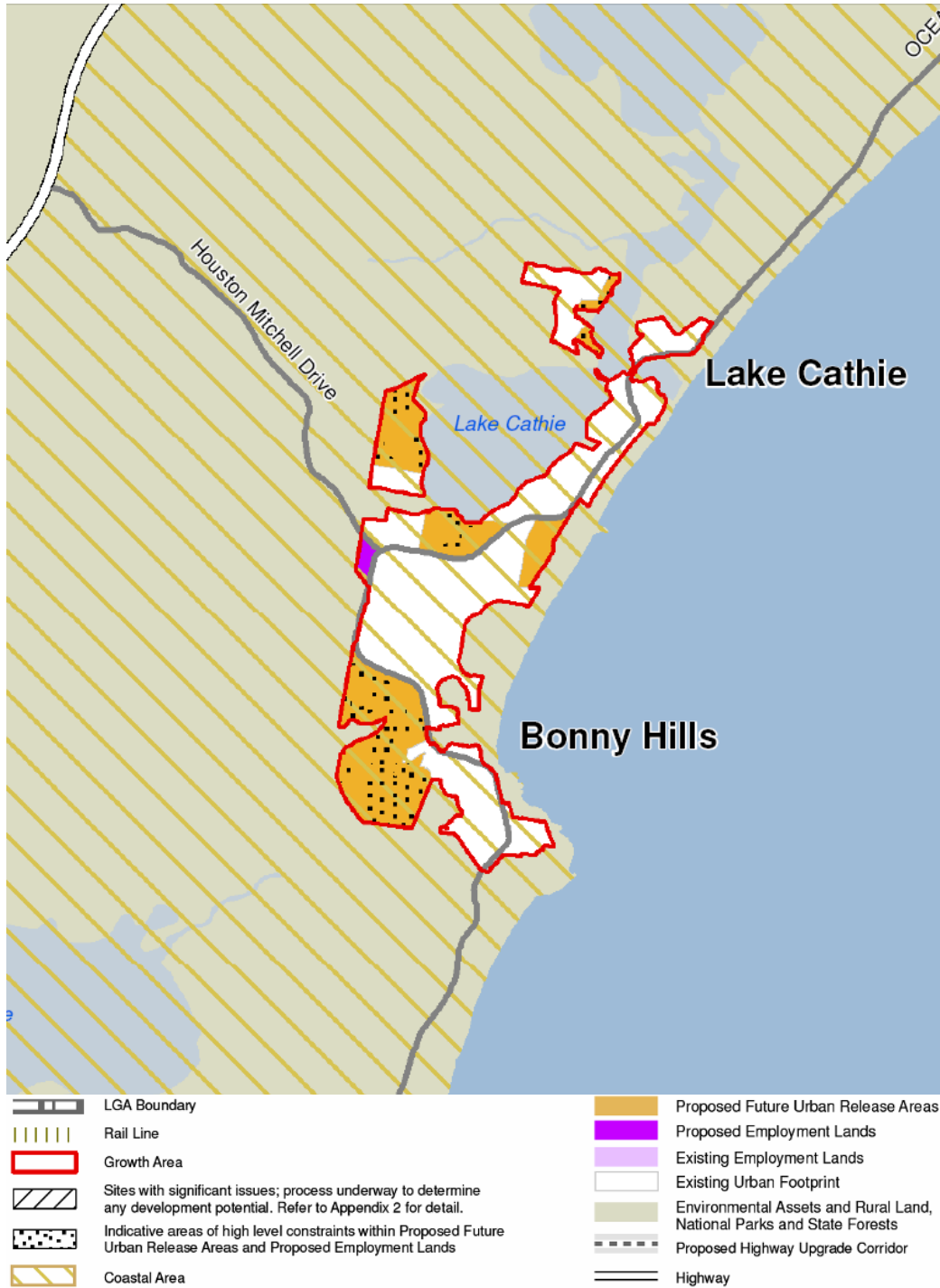


Figure 5: Extract from Mid North Coast Regional Strategy.

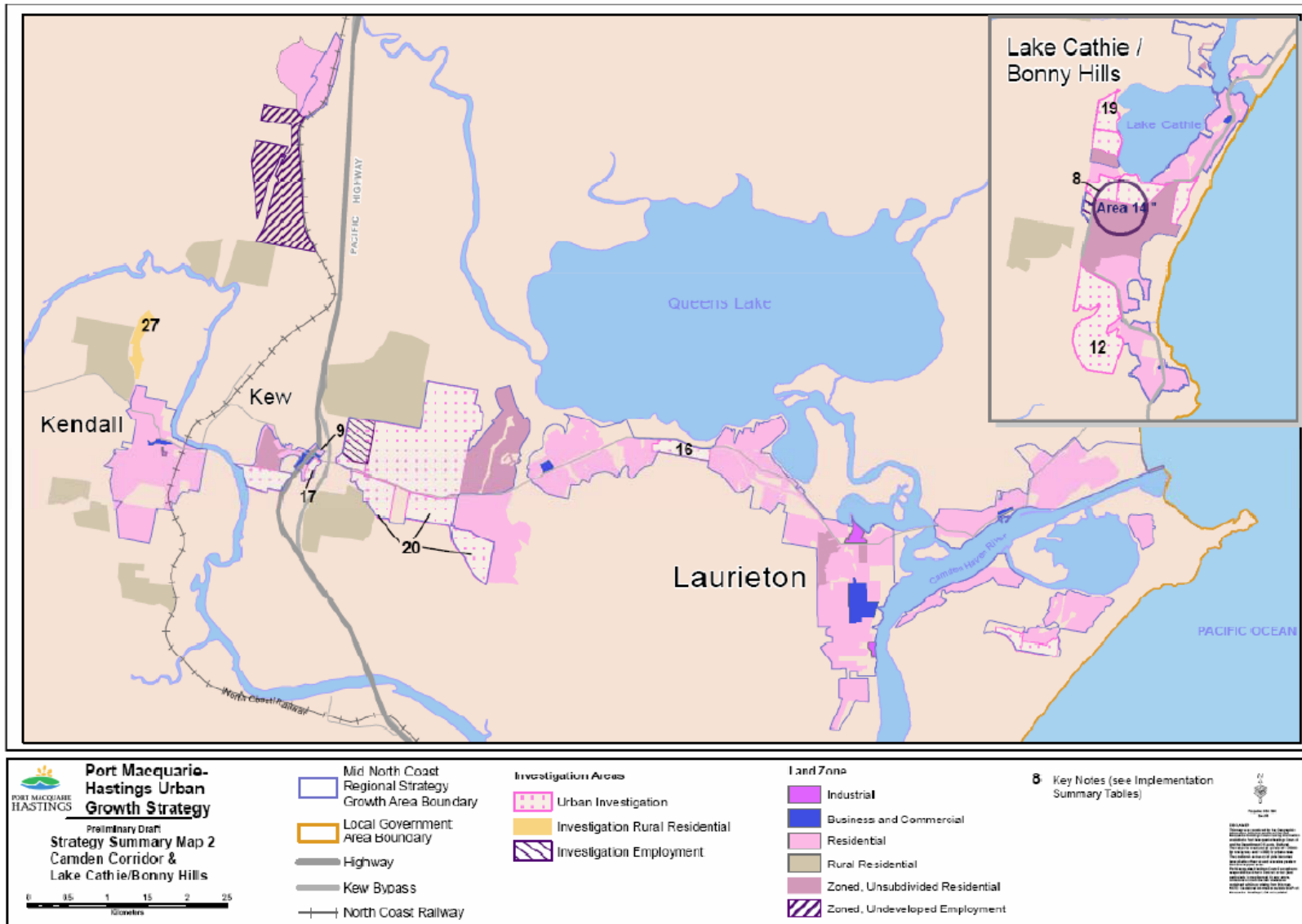


Figure 6: Extract from Draft Urban Growth Management Strategy 2010.

Is there a net community benefit?

The site, being part of the Area 14 UIA, has been included in previous investigations in relation to social impact. The Concept Plan proposal represents a medium scale urban development within a much broader scale urban community comprising the area from Lake Cathie to Bonny Hills which is forecast to house approximately 10,000 people.

The Lake Cathie Bonny Hills [Master Plan](#) 2004 prepared by Diecke Richards carried out the following investigations relevant to social impact:

- Population Growth and Community Needs (being the population characteristics, community facilities, education, childcare, sport and recreation, open space and economic needs of the area); and
- Community issues and values.

The community consultation process included design workshops which were attended by Council, the Hastings Urban Growth Strategy (HUGS) implementation committee, State Government agencies and the local community.

In addition a public meeting, the 'Community Visioning Workshop', was conducted and included representatives from the community, local organisations and the Lake Cathie and Bonny Hills Progress Association.

The workshops discussed the following issues relevant to Area 14:

- Movement – street network, public transport, pedestrian / cycle access, built form interfaces;
- Environment and heritage – fauna / flora, bushfire, Aboriginal archaeology, visual assessment, built form interfaces;
- Infrastructure – water, sewerage, soils, geotechnical, landslip, hydrology, drainage, flooding,
- Community and cultural needs – community facilities, education, retail, employment, cultural.

This process identified the significant issues for the community. In priority order these were:

1. Maintaining a village atmosphere and environmental values
2. Sensitive water management
3. Environmental management and wildlife corridors
4. Adequate infrastructure for development
5. Remedy existing infrastructure deficiencies
6. Urban/community/environment relationships
7. Integrated community centre
8. Ensure road system adequacy
9. Danger of overdevelopment

The following table provides a summary of the overall findings from the Master Plan process (Diecke Richards, 2003):

Table 3: Summary of overall findings from the Master Plan process.

Issue	Summary
1. General	<ul style="list-style-type: none"> The population of the Hastings Local Government area is expected to grow to 97,800 by 2021; The proportion of this growth planned for Area 14 is 9,900; The Master Plan anticipates a final population of 10,000 for Area 14.
2. Population Characteristics	<p>The Master Plan population differs from the NSW average in the following areas:</p> <ul style="list-style-type: none"> Older age profile, with less people in the 15 – 34 age group and more in the 60+; Significant in-migration of families and retirees with out-migration of postsecondary school young people; There is a similar proportion of children (therefore schools are full); Individual incomes are generally lower than for NSW as a whole.
3. Facilities	<p>A number of community facilities will be required, some of which requiring a catchment population of 6,000 to 7,000, including:</p> <ul style="list-style-type: none"> One state and one non-government primary school; Community / cultural branch library; Multi-purpose community centre; A child care centre (30 to 50 place); Sports facilities including soccer, baseball, tennis, rugby league, cricket and netball; Open space, including passive areas, smaller parks and buffer areas adjoining sensitive ecological areas.
4. Economic needs	<p>Facilities which will support the development of local employment, including the following sectors:</p> <ul style="list-style-type: none"> Retail; Tourism; Community services; and Business, property and financial services. <p>The above services should include:</p> <ul style="list-style-type: none"> Specialty and supermarket shopping; Medical and other professional services; Library; Community centre; Office space; Tourist accommodation; Tourist related services; Tourist related retail; <p>The higher order retail uses should be related to community facilities and schools; It would be anticipated that 30% of employment will be created in the Master Plan area to service the day to day needs of the residential community.</p>
5. Industrial lands	<p>A single area with good road access will be required</p>

Social Impact Assessment

A social impact assessment was undertaken as part of the Part 3A Concept Plan application. The SIA was undertaken by King and Campbell and has been replicated in the following:

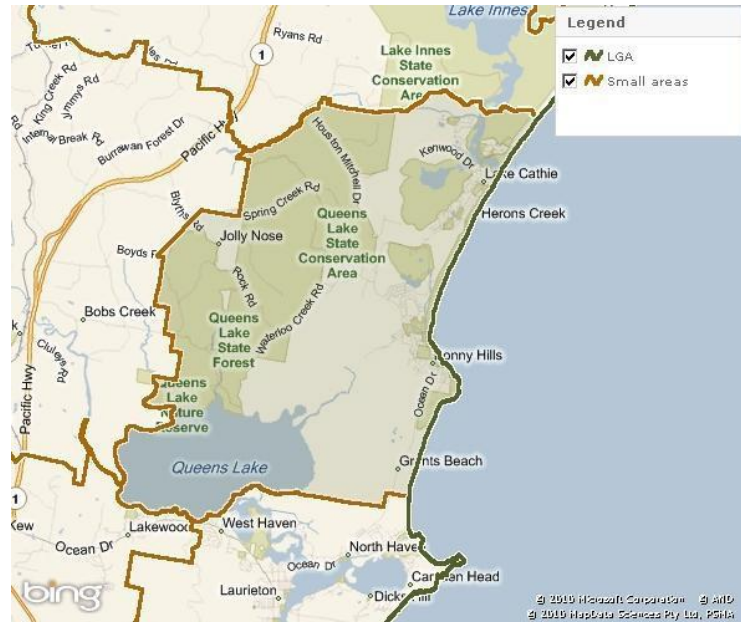
The SIA identifies features of the proposal that may have social impacts and to identify the groups that may be affected. The assessment also provides information on strategies to manage and mitigate any impact as a result of the development.

For the purpose of this assessment ‘the site’ is the proposed residential community forming the Concept Plan application.

1. Community profile of the existing Lake Cathie / Bonny Hills community

The Lake Cathie and Bonny Hills areas are predominantly residential in character and are essentially outlying suburbs of Port Macquarie. Data from the Port Macquarie Hastings Council Community Profile (prepared by Port Macquarie-Hastings Council and based on the 2006 and 2001 enumerated census information as published by the Australian Bureau of Statistics), has been used to develop the community profile of the existing Lake Cathie / Bonny Hills area.

For the purpose of the census data, the existing Lake Cathie / Bonny Hills area is that area bound by Cowarra Creek and the locality of Lake Innes in the north, the Tasman Sea in the east, the locality of North Haven and Queens Lake in the south and the localities of Bobs Creek and Herons Creek in the west, as depicted on the following map:



The following table provides a summary of this existing Lake Cathie/Bonny Hills residential community:

The following conclusions can be drawn from the above data for the existing population within the Lake Cathie Bonny Hills census area:

- The area attracts equal numbers of families with younger (school age) children and older people / retirees (50+);
- The majority of the existing population (92.5%) has either part or full time employment;
- Private car ownership is high (92.1%) and cars are the preferred mode of transport to work (76%);
- Home ownership is high (75.9%) with single dwellings representing the typical form of residential accommodation (80.6%).

2. Profile of incoming residents

The best indicators for the profile of future residents to the site are:

Lake Cathie / Bonny Hills Census Area	
Existing population	5,427
Age structure	26.6% of population aged 0 – 17 (school age) 35% of population aged 18 - 49 38.4% of population aged 50 and over
Birthplace	9.3 % born overseas 87.2% born in Australia
Employment status	92.5% of population working part / full time 7.5% unemployment rate
Occupation categories	18.5% categorised as professionals 16.7% as technicians and trade workers 15.1% as clerical and administration workers These three occupations account for 50.3% of the employed people in the resident population
Mode of transport to work	76% of workers travel to work by private car / motor bike / truck 0.1% use bicycle 1.8% walk to work
Households and family types	79.6% of households with children 17.1% are households with no children
Number of persons in the household	17.3% of lone households 42% of 2 person households 40.7% of households with more than 3 persons
Owners / renters	75.9% own, or are purchasing their place of residence 20.4% are renting
Car ownership	92.1% own their own vehicle 4.2% do not have a vehicle
Type of dwelling	80.6% in single dwellings 6.1% in either semi-detached or flats

- *The issues of significance / importance as expressed by the existing Lake Cathie / Bonny Hills residents as part of the consultation process for the Area 14 Master Plan; and*
- *The profile of the existing Lake Cathie / Bonny Hills community, as derived from the 2006 census data.*

It is therefore anticipated that the following characteristics will be representative of the incoming residents to the residential community envisaged by the Concept Plan:

- *The site will be seen as desirable by both families and active, younger retirees, where the proximity to employment areas is important (15 minute drive to Port Macquarie, 10 minute drive to Laurieton and 10 minute drive to the Pacific Highway);*
- *The site will provide an attractive lifestyle choice where convenience to urban facilities and services is as important as convenience to recreation facilities. The site is in close proximity to shops, community services, medical centres, schools, sporting fields, beaches and outdoor recreation facilities, both existing and proposed as part of the Area 14 development ;*
- *The environment will be valued and residing within a community with likeminded residents who also value the environment will be an attraction;*
- *Living within a safe community where children can walk to local facilities and primary schools will be desirable;*
- *Car ownership will be high however access to school bus services, particularly to secondary schools, will be important;*
- *Retaining natural features and areas of open space will be important, together with retaining sight lines to these natural features as this will provide an assurance that the area is not 'overdeveloped';*
- *Retaining aspects of the natural environment and access to these natural areas will be considered as important as access to all urban infrastructure;*
- *Community values will be important, including investing the local community with a sense of ownership over the environmental features of the locality.*

3. Scope of assessment

The main population groups that are likely to be affected by the Concept Plan proposal are:

- *The incoming residents to the site;*
- *The adjacent incoming residents to new residential areas within the broader Area 14 area; and*
- *The existing population of Lake Cathie and Bonny Hills with whom the incoming residents will interact and with whom they will share facilities and services.*

4. Key Issues

The main source of impact will centre on the juxtaposition of maintaining the environment and natural areas with providing urban infrastructure, facilities and services to a level which will be expected by future residents. It is anticipated that future residents will demand a high level of access (roads, cycle ways and pathways) as well as access to all urban infrastructure (water, sewer, stormwater quality/control), within a safe, neighbourhood style residential community. However the residents attracted to the beachside locality will not accept adverse impacts on the natural environmental, including visual intrusions into the natural areas.

The relationship between the environment and urban infrastructure will be discussed in the following section.

5. Social Impact: assessment

The following table has been developed to categorise, evaluate and identify likely impacts of the development.

Issue Identification	Assessment
<p>Demographics, including population size, age of future residents and housing mix.</p>	<p>The profile of incoming residents has confirmed that the site will attract people who chose to reside in the locality for its lifestyle advantages, including its proximity to urban infrastructure and its environmental and scenic qualities. The existing Lake Cathie / Bonny Hills area offers beach side living in a relaxed environment with the convenience of Port Macquarie only a 15 minute drive away.</p> <p>It is expected that incoming residents will be families or active younger retirees, as can currently be found in the locality.</p> <p>The proposed development will increase the population density of the site in accordance with the Greater Lake Cathie Bonny Hills UDMP and the Mid North Coast Regional Strategy.</p> <p><u>Impacts on incoming residents:</u></p> <p>Incoming residents will likely be similar in age, hold similar values and be of similar economic status. This should facilitate the development of a mutually supportive community which will participate readily in activities at the local level.</p> <p>Incoming residents with similar values will develop a strong sense of ownership over the adjacent beach and rainforest area, contributing to its protection in the longer term.</p> <p><u>Impacts on the adjacent incoming residents and the existing population of the Lake Cathie / Bonny Hills area:</u></p> <p>It is expected that the incoming residents will have similar values and socio-economic status as the existing local population. However there is a possibility that the existing residents may harbour resentment towards the incoming residents for being part of a development process which has alienated them physically from the coastline.</p> <p>Currently the existing residents enjoy views across an expansive 'open space' area, with unrestricted access through the rainforest to Rainbow Beach (albeit that the cleared land is in private ownership). The beach itself is not patrolled and therefore ideal for secluded walks and unleashed dog walking.</p> <p>Existing residents will also view an increase in resident population size as a negative and as being likely to have an adverse impact on the unique qualities of the locality, including environmental and scenic.</p>
<p>Housing choice and supply, including housing stock, affordability and special needs</p>	<p>The Concept Plan proposal aims to increase housing choice in the locality by offering specific areas for medium density (residential flat buildings / townhouses / integrated housing) and low density residential. Currently the majority of existing residents reside in detached single dwellings. Whilst this housing style is popular for families with younger children, an increase in housing choice and supply will extend the appeal of the locality for a variety of household types.</p> <p>Housing affordability will also be achieved with an increase in housing styles. In addition, the provision of medium density areas adjacent to the proposed Hill Top Village will appeal to people with a disability. It is envisaged that the proposed residential flat buildings will have direct level grade access through to the Main Street via the service lanes. Lifts will be provided within the residential buildings, making them an ideal choice for older people and people with a disability.</p> <p><u>Impacts on incoming residents:</u></p> <p>The housing type and supply proposed as part of the Concept Plan will provide incoming residents with choice where currently this is limited. The proposal will offer a range of dwelling types and therefore purchase price, this being a positive impact for incoming residents.</p> <p><u>Impacts on the adjacent incoming residents and the existing population of the Lake Cathie / Bonny Hills area:</u></p> <p>Conversely, the increase in housing types and the introduction of zoned medium density areas will be relatively new concepts for the existing population of the locality. It can be derived from the census data that the existing population has chosen to reside in the locality for its single dwelling /low density appeal. The proposed increase in density will not be supported by the existing residents if it comes at a cost to the natural environment, provision of public space and access to the foreshore.</p>

Issue Identification	Assessment
<p><i>Community identity and integration, including social interaction, residential amenity and social / cultural networks</i></p>	<p><i>The Concept Plan layout will create a sense of place; from the tree lined Village Square which announces your 'arrival' at the Hilltop Village, to the orientation of the local road system which all lead visually to the public open space adjoining the rainforest/beach area. This strong sense of place will promote a strong local identity for both residents and visitors.</i></p> <p><u><i>Impacts on incoming residents:</i></u></p> <p><i>A strong community identity as a result of the built form concepts included in the Concept Plan will provide a positive impact for incoming residents. Incoming residents will seek to be part of a community with similar values to their own. The strong community identity established by the Concept Plan proposal will therefore be a positive aspect of the development for incoming residents.</i></p> <p><u><i>Impacts in the adjacent incoming residents and the existing population of the Lake Cathie / Bonny Hills area:</i></u></p> <p><i>The proposed Concept Plan includes a range of development concepts which are currently not found in the Lake Cathie/Bonny Hills locality. Whilst tourist accommodation / facilities and retail areas are currently provided for, they are generally integrated with the low density, detached dwellings which are the prevalent building type in the locality.</i></p> <p><i>However, it is anticipated that the Hilltop Village and new cycleway / pathway links to the existing community will encourage social interaction between the incoming residents and existing residents. The Main Street will include activated street frontages and promote walking between key focal points, including the pocket park and beach access.</i></p> <p><i>It is therefore anticipated that the strong community identity created by the Concept Plan proposal will provide a positive outcome for the existing population.</i></p>
<p><i>Services and facilities</i></p>	<p><i>Council has been undertaking planning works in 'Area 14' since the adoption of HUGS in October 2001 recognised the area as an Urban Investigation Area (UIA). The upgrade of the Bonny Hills STP (which has been a constraint to development in the past) was recently opened in May, 2010.</i></p> <p><i>While the existing villages of Lake Cathie and Bonny Hills and the 'Area 14' UIA currently lack some of the community infrastructure and service facilities normally expected in an urban area, it is the implementation of the current Part 3A applications that will provide the impetus for such services to be supplied.</i></p> <p><i>Services will likely include child care, health, educational (schools) and other community services for disadvantaged groups. The increase in population will ensure that these services are provided to the existing residents in Lake Cathie and Bonny Hills, as well as the future population generated by the existing Part 3A proposals.</i></p> <p><u><i>Impacts on incoming residents:</i></u></p> <p><i>The range of services and facilities available to the incoming residents as a result of the subject Concept Plans together with the adjoining Part 3A Concept application (school, regional playing fields and village shopping centre) will surpass those currently available for the existing community.</i></p> <p><u><i>Impacts in the adjacent incoming residents and the existing population of the Lake Cathie / Bonny Hills area:</i></u></p> <p><i>Negative social impacts due to the lack of community infrastructure and human service facilities are already being experienced by existing residents in Bonny Hills and Lake Cathie, with the lack of a primary school and medical services being well documented. These impacts will be mitigated via the provisions of services within the new central town centre as envisaged in the 'Area 14' Master Plan.</i></p>
<p><i>Community safety and health</i></p>	<p><i>In relation to community safety, data from the NSW Bureau of Crime Statistics and Research confirms that the level of crime generally in the Port Macquarie Hastings Local Government Area is below average for the State. The crime mapping, "hotspot maps", shows very low levels of most categories of crime in the Lake Cathie Bonny Hills area, with domestic violence, break and enter, car theft, stealing from cars and dwellings, and damage to property showing a low to moderate occurrence.</i></p> <p><i>In relation to health it would be expected that increases in resident population will in the longer term attract additional medical services to the locality. A new medical practice has recently opened on Ocean Drive (opposite site) and is already undergoing expansion. The Base Hospital at Port Macquarie is a 20 minute drive from the site.</i></p> <p><u><i>Impacts on incoming residents:</i></u></p> <p><i>Despite the low levels of crime in the locality, a new residential area with a strong sense of community as is anticipated with the Concept Plan, will promote a sense of security</i></p>

Issue Identification	Assessment
	<p>for incoming residents.</p> <p><u>Impacts in the adjacent incoming residents and the existing population of the Lake Cathie / Bonny Hills area:</u></p> <p>It is not anticipated that the Concept Plan will increase levels of crime in the general locality for the existing residents. The proposed layout and design of the Concept Plan includes perimeter roads, allowing casual surveillance of public spaces and open space areas. The orientation of the future dwellings should therefore discourage anti-social behaviour.</p> <p>A general increase in population should attract additional medical practitioners to the locality, thereby benefitting the existing residents. The provision of commercial space within the subject Concept Plan and within the adjoining St Vincent's Part 3A submission should also act as an attraction for medical practitioners.</p>
Economic and employment	<p>The economic effects of developing the site for residential purposes are all positive. An increased population will support the existing local facilities, including the Woolworths development at Lake Cathie and have a positive flow on effect for the provision of additional shops and services in the area, in particular, the adjoining future village centre. As identified by the 'Area 14' master plan, the provision of services will 'follow on' with an increase in population. As the proposed development will be staged over a number of years, there will be a gradual increase in demand for retail and commercial uses.</p> <p>The employment impact and related economic impacts arising from the construction on the site will be substantial in relation to employment in construction itself, with added offsite benefits for suppliers. On-site workforce will also benefit the local community with increased expenditure in shops and retail areas.</p> <p><u>Impacts on incoming residents:</u></p> <p>The proposed Hilltop Village and the adjoining future village centre will also provide some employment opportunities to residents within walking distance of their residence.</p> <p><u>Impacts in the adjacent incoming residents and the existing population of the Lake Cathie / Bonny Hills area:</u></p> <p>A high proportion of the existing population of Lake Cathie Bonny Hills utilise private cars for access to employment. With the increase in population as a result of the proposed development it is likely that public transport opportunities will be expanded, thereby benefitting the current and future populations of the area. Notwithstanding, access to employment generally will be improved with improved public infrastructure (roads etc)</p>
The natural environment and Aboriginal archaeology	<p>Concept plan proposed and Project Application for the 'Stage 1 Environmental Works' incorporates the retention and protection of the aboriginal artefact located within the rainforest. The Birpai LALC have confirmed that the non-disclosure of the artefacts location and restriction of pedestrian access to a defined boardwalk style path through the rainforest is supported. This submission will ensure the protection of this piece of aboriginal heritage for future generations.</p> <p>Significant stormwater quality controls are proposed to ensure that stormwater quality is higher post-development than currently exists, thereby protecting the adjoining rainforest.</p> <p><u>Impacts on incoming residents:</u></p> <p>A development which will protect the environmental qualities of the site and adjoining landscape will be attractive for incoming residents. The benefits in maintaining the environmental qualities is two-fold, it will attract new residents to the area and it will ensure the protection of the rainforest in the longer term by investing a sense of ownership for adjoining residents.</p> <p><u>Impacts in the adjacent incoming residents and the existing population of the Lake Cathie / Bonny Hills area:</u></p> <p>The existing residential community will not accept any compromise in relation to the environmental and natural features of the locality. An increase in population and provision for medium density development will have connotations of 'over development'. Appropriate assurances with supporting scientific evidence that the proposed urban development will not harm the environment will be required.</p>

6. Social Impact: management and mitigation

A number of built form controls at the private / public interface with the rainforest can assist to integrate the incoming residents with the existing residents. The proposed public component to the rainforest buffer will incorporate parking, cycle ways, footpaths and open space immediately adjacent to the rainforest. Whilst this public interface will engender a sense of ownership for the future incoming residents, it will also allow ease of access for the broader existing community. The public pathway and cycleway will link with the existing pathways and enable improved access for all residents.

Managing the environmental concerns of the existing population will also require that adequate information is made available. The existing population will require assurances that the proposal will not adversely affect the natural environment and that the areas of increased density will make a positive contribution for the community generally. The statement of commitments will provide some assurances, however it is proposed to conduct a public meeting with the local progress associations during the exhibition period to ensure all issues the community may have are adequately addressed.

It is the built form of the development that will ensure social integration between the incoming and existing residents. The public places (Village Square, Main Street, Pocket Park and beach access) will link with the existing and proposed street network and cycle ways/pathways. Incoming residents should integrate well into the local community as it would be expected that they would utilise the same services, shops and recreation facilities as the existing residents.

The benefits of the broader community as a result of the population increase and its positive effect on the provision of services and facilities is considered to be a positive impact for the locality.

7. Conclusion

The proposed development has been found to generate overall positive outcomes when considered in the context as part of the implementation of Council's Urban Design Master Plan for the Lake Cathie Bonny Hills area.

- Economic benefits associated with the development in relation to job creation and support for local facilities, in both the short and long term;*
- The proposed development forms part of the population growth in Area 14 which will ultimately lead to the provision of a broader range of community services that are currently lacking in the existing villages of the Lake Cathie and Bonny Hills;*
- The ongoing protection and monitoring of the rainforest will benefit from a resident local community which has taken a form of 'ownership' for its wellbeing; and*
- Short-term negative social impacts due to the current lack of community infrastructure and human service facilities in Lake Cathie and Bonny Hills (eg the lack of a primary school and medical services) are expected to be alleviated in the medium to long term through the implementation of the adjoining Part 3A applications and the subject application. As indicated in the Area 14 Master Plan the resultant population increase will lead to the provision of additional services that will benefit both future and existing residents of the Greater Lake Cathie Bonny Hills area.*

The Social Impact Assessment is considered a broad assessment of the key issues that may affect the existing and future residents of the Area 14 – 1B area. The SIA does not meet the requirements of the Council’s Social Impact Assessment Policy.

The scope of the impacted population and type of impact is considered limited. Many assumptions have been made by the report author about the population, their issues and the likely impacts without any engagement with the actual population other than reference to the issues raised by the participants in the development of the 2003 Master Plan.

No detailed, formal assessment of the SIA by Council has been undertaken as it is expected that the Department of Planning in its Gateway Determination will identify the shortcomings of the included assessment and request a more detailed SIA to be prepared in accordance with the Council’s Social Impact Assessment Policy and Guidelines.

Net Community Benefit (Draft Centres Policy)

The “Guide to Preparing Planning Proposals” refers to the Net Community Benefits Test (NCBT) developed for its Draft Centres Policy. This test is required as part of the planning proposal preparation to evaluate the net community benefit of the planning proposal. The NCBT lists evaluation criteria that are reproduced in the table below. The proposal is assessed against each criterion and provided with an explanation and an evaluation – being ‘not applicable’; ‘negative’; ‘neutral’ or ‘positive’.

Table 4: Assessment of Net Community Benefit of the proposed rezoning in accordance with the test development as part of the Department’s Draft Centres Policy.

Evaluation Criteria	Evaluation	Benefit
Will the LEP be compatible with agreed State and regional strategic direction for development in the area.	Yes. Refer Section B - Relationship to strategic planning framework.	Neutral
Is the LEP located in a global/regional city, strategic centre or corridor nominated within the Metropolitan Strategy or other regional/subregional strategy?	Yes. Refer “ <i>Is the planning proposal a result of any strategic study or report?</i> ” above.	Neutral
Is the LEP likely to create a precedent or create or change the expectations of the landowner or other landholders?	No. The site is part of a Master Plan area within an identified Urban Investigation Area.	Neutral
Have the cumulative effects of other spot rezoning proposals in the locality been considered? What was the outcome of these considerations?	There are no other spot rezoning in the area. The other rezoning applications for precincts 1A and SVF are generally consistent with the Master Plan for the Area.	Neutral
Will the LEP facilitate a permanent employment generating activity or result in a loss of employment lands?	A B4 – Mixed Use zone is proposed to enable the ‘hill top village’ mixed use area. The village is expected to serve the convenience needs of local residents and provide a tourist and entertainment (dining etc) focus for the precinct. The village is located opposite the proposed beach entry and will enjoy views over the littoral rainforest. It is expected that these uses will generate a small amount of local employment with likely seasonal increases. The physical development of the site will generate temporary employment during the development and construction phases. Despite being temporary in nature the site is part of the larger ‘Area 14’ development area which is likely to sustain building activities for many years.	Positive
Will the LEP impact upon the supply of residential land and therefore housing supply and affordability?	The proposal will provide additional housing for the Port Macquarie-Hastings and in particular the villages of Bonny Hills and Lake Cathie. The mixture of residential zones (R1 - General residential, R3 – Medium Density Residential, B4 – Mixed Use) should encourage housing diversity however it is unclear if the additional housing will result in greater affordability. The development of the site requires significant	Positive

Evaluation Criteria	Evaluation	Benefit
	<p>investment in infrastructure such as road works. There is also a significant investment required to establish and then maintain the littoral rainforest buffer, fencing, beach access and the installation of the groundwater, bio-infiltration basins.</p> <p>These costs will be recovered from the land purchaser. Therefore it is unlikely that the development will result in affordable housing.</p>	
<p>Is the existing public infrastructure (roads, rail, utilities) capable of servicing the proposed site? Is there good pedestrian and cycling access? Is public transport currently available or is there infrastructure capacity to support future public transport?</p>	<p>The site is serviced by a regional road – Ocean Drive and by a single bus route that connects the Camden Haven to Port Macquarie via Area 14.</p> <p>The development of Area 14 will require the upgrade of Ocean Drive to accommodate the additional population. This has been modelled and the proposed upgrades are represented in the Roadnet Traffic Assessment Report.</p> <p>The ultimate configuration of Ocean Drive will accommodate on road cycling and public transport infrastructure such as bus stops although this is not represented in the Traffic Impact Assessment. The Council is in the process of engaging a consultant to prepare a corridor plan for Ocean Drive.</p> <p>A proposed coastal cycle and pedestrian link is proposed to run through the site parallel to Rainbow Beach.</p> <p>The additional population is likely to support the existing public transport (buses) infrastructure. The development of Area 14 will also provide crucial linkages in the coastal cycling route.</p> <p>Given the limited additional development in other areas along Ocean Drive such as Bonny Hills, North Haven and Laurieton it is unlikely that Ocean Drive would require upgrading in the absence of the development of Area 14.</p> <p>The development of Area 14 will result in the upgrading of Ocean Drive along the length of the site but will not contribute to any upgrades elsewhere on the route. The TIA does not consider the impact of the additional population at other key locations such as “Cathie Bridge” or “Cathie Straight” which is expected to need augmenting to service the additional traffic.</p> <p>The other significant impact on infrastructure is those facilities that are already under strain such as schools and in particular medical facilities. The development of Area 14 includes at least (1) one and perhaps (2) schools and regional playing fields.</p> <p>The provision of medical facilities is an Australia-wide, regional problem. However the zoning plan will not prohibit the establishment of medical practices in Area 14 due to the provisions of the SEPP (Infrastructure).</p>	<p>Positive/Negative</p>
<p>Will the proposal result in changes to the car distances travelled by customers, employees and suppliers? If so, what are the likely impacts in terms of greenhouse gas emissions, operating costs and road safety?</p>	<p>A village centre is proposed within the Area 14 – SVF precinct. It is expected that this will cater for the daily needs of the local population with a supermarket, bank/s and community facilities including a library. The ‘hill top’ village within the 1B precinct is expected to provide convenience services such as a neighbourhood shop.</p> <p>The higher order needs will continue to be provided by the other centres of Laurieton and Port Macquarie.</p> <p>Employment will continue to be provided at the larger centres although a small amount of local employment is expected.</p> <p>This will not result in changes to the car distance travelled but the additional population will support the existing bus service and encourage more frequent services.</p>	<p>Positive</p>

Evaluation Criteria	Evaluation	Benefit
Are there significant Government investments in infrastructure or services in the area whose patronage will be affected by the proposal? If so, what is the expected impact?	The key government investment has been in water and sewerage infrastructure. A moratorium on development in the Lake Cathie / Bonny Hills Area has recently been lifted on the commissioning of the upgraded Sewerage Treatment Plant. The Council has also secured an interest free loan for the installation of trunk water infrastructure. The infrastructure will be paid for by the developer (through s68, s94 contributions and voluntary planning agreements) and the new residents (by their rates).	Positive.
Will the proposal impact on land that the Government has identified a need to protect (e.g. land with high biodiversity values) or have other environmental impacts? Is the land constrained by environmental factors such as flooding?	Detailed investigation into a range of environmental constraints including ecological, flooding, geotechnical, groundwater and geomorphological have been undertaken into account in the development of the proposed zoning layout. The most significant environmental constraint is the maintenance and enhancement of the littoral rainforest and its continued viability. The resulting zoning layout responds to the rainforest and should result in its secured protection.	Positive
Will the LEP be compatible/complementary with surrounding land uses? What is the impact on amenity in the location and wider community? Will the public domain improve?	The area is part of the Urban Design Master Plan for the whole of Area 14. It is generally consistent with the 2004 plan for the area. A detailed view analysis accompanies the planning proposal that investigates the sites relationship with the surrounding environment. The proposal will result in some key public spaces such as the 'hill top' village, the 'square', the 'pocket park' and the access track to Rainbow Beach. It will also provide a significant link in the proposed coastal bikeway.	Positive
Will the proposal increase choice and competition by increasing the number of retail and commercial premises operating in the area?	The 'hill top' village area is proposed to be zoned B4 – Mixed Use. The mixed use zone permits with consent a range of land uses. It is expected that this mixed use area will provide convenience and tourist type shops, a mixture of tourist and residential accommodation (with ground floor activation) and entertainment premises such as restaurants, cafes etc. The village centre proposed within the SVF precinct is expected to provide for higher order retail / commercial / community needs and therefore a different level of retail and commercial function. The Master Plan examined the options in relation to the existing villages of Lake Cathie and Bonny Hills. The plan supported the development of a new village between them.	Positive
If a stand-alone proposal and not a centre, does the proposal have the potential to develop into a centre in the future?	It is unlikely that the proposed B4-Mixed Use zone will ascend the proposed commercial hierarchy in Area 14. The 'Village Centre' in the SVF precinct enjoys direct access to Ocean Drive and the footprint of the B4-Mixed is much larger than that proposed in the 1B precinct.	Neutral
What are the public interest reasons for preparing the draft plan? What are the implications of not proceeding at that time?	The draft Local Growth Management Strategy expects to accommodate additional population growth in the Hastings in the Wauchope-Port Macquarie Corridor (including Area 13), in Area 14, Area 15, infill sites and urban consolidation of the existing urban footprint. Area 14 – is expected to house a population of around 6000 people and therefore it is an important part of future provisions of residential land in the LGA. The implications for not proceeding at this time is negligible. Area 13 is approved (and expected to provide for around 10000 people), there are a number of infill sites and sufficient existing approved residential land to satisfy immediate and medium term housing demand for the region.	Neutral

Evaluation Criteria	Evaluation	Benefit
	<p>The Council (and State Government) have invested significant funds in water and sewerage infrastructure to service development in Area 14, Lake Cathie and Port Macquarie. A negative impact of not proceeding at this time is the delay in paying off this infrastructure through the mechanisms described above.</p>	

Table 4 discusses the net community benefits with reference to the format set out in the Department of Planning's 'Draft Centres Policy'. The only negative impact identified is the potential impact of the increased population on the greater road network and the impact of the additional population on community infrastructure such as schools and medical facilities.

The remaining assessment is either neutral or positive.

It is considered that the net community benefit of the proposal is POSITIVE.

Section B - Relationship to strategic planning framework.

Is the planning proposal consistent with the objectives and actions contained within the applicable regional or sub-regional strategy (including the Sydney Metropolitan Strategy and exhibited draft strategies)?

The Mid North Coast Regional Strategy identifies the site as a proposed future release area (Refer Figure 5). The proposal to rezone the site is consistent with the objectives and actions contained within the Mid North Coast Regional Strategy.

Table 5: Summary of objectives of the Mid North Coast Regional Strategy.

Objectives	Response
Protect high value environments, including significant coastal lakes, estuaries, aquifers, threatened species, vegetation communities and habitat corridors by ensuring that new urban development avoids these important areas and their catchments.	<p>The key environmental consideration on the site is the protection and enhancement of littoral rainforest no 116. Specialist investigation, including groundwater studies, have been carried out by Martens & Associates in association with ecologists to ensure minimal impact on the catchments associated with the rainforest. These investigations have confirmed that the groundwater and stormwater management can be appropriately managed.</p> <p>The protection of the rainforest also considers coastal erosion and sea level rise associated with climate change. The buffer between the existing rainforest and the proposed urban zone will be revegetated, managed and then fenced. The buffer accommodates the westward creep of the forest to 2100.</p>
Cater for a minimum housing demand of 59,600 new dwellings by 2031 to accommodate the forecast population increase of 94,000 and any anticipated growth beyond this figure arising from increased development pressures in the Region.	The proposed development will cater for additional residential development within an area identified by HUGS and the Lake Cathie/Bonny Hills UDMP as being a suitable location.
Ensure that new housing meets the needs of smaller households and an ageing population by encouraging a shift in dwelling mix and type so that 60 percent of new housing is the traditional detached style and 40 percent is of multi unit style.	<p>The proposed development will include a mix of low density, medium density and commercial / tourist uses in the Hilltop Village in generally in accordance with the Greater Lake Cathie and Bonny Hills Urban Design Master Plan and the MNCRS.</p> <p>There is a deviation from the originally proposed area of medium density housing. This has been justified on that basis that such a high level of medium density housing is completely uncharacteristic of the area and unlikely to reflect what the market will demand. The footprint of the medium density proposed is smaller than the UDMP however the increased building height within the smaller footprint will lead to a yield closer to that proposed by the master plan.</p>
Ensure an adequate supply of land exists to support economic growth and the capacity for an additional 48,500 jobs in the Region by protecting existing commercial and employment areas and securing sufficient land to support new employment opportunities.	New employment opportunities will be available with the development of the proposed Hill-Top Village and tourist zones. There is also an employment area within the greater Area 14 urban investigation area.
Encourage the growth and redevelopment of the Region's four major regional centres and six major towns as a means of protecting sensitive coastal and natural environments and strengthening the economic and administrative functions of these centres as well as meeting increased density projections.	<p>The Area 14 locality within which the site is located has been identified for future urban growth since the adoption of the Hastings Urban Growth Strategy in 2001. Area 14 is also recognised in the MNCRS as one of the major investigation areas within which growth will occur in the PMH Local Government Area.</p> <p>This strategic plan has promoted the development of a 'village' between Lake Cathie and Bonny Hills, whilst maintaining and protecting its unique environmental features.</p> <p>The subject application is the culmination of detailed investigation which has each confirmed that the site can be developed, in accordance with the strategic documents, as set</p>

Objectives	Response
	out in this submission.
Protect the coast and the character of coastal villages by limiting growth to the agreed growth areas of towns and villages leaving greenbelts between settlements.	The site is located within an agreed 'growth area' as identified by HUGS, the Lake Cathie/Bonny Hills UDMP and the MNCRS.
Direct new rural residential development to areas close to existing settlements away from the coast.	Not applicable
Only consider additional development sites outside of growth areas if they can satisfy the Sustainability Criteria.	Not applicable
Designate a coastal area east of the proposed final alignment of the Pacific Highway from which application of the Sustainability Criteria will be excluded (noting that approximately 70 per cent of the future dwelling capacity identified within growth areas is already within the Coastal Area).	Not applicable
Limit development in places constrained by coastal processes, flooding, wetlands, important primary industry land and landscapes of high scenic and conservation value.	Detailed investigations of the site with regard to all site constraints have been undertaken. These studies all confirm that development of the site as described in this submission is appropriate.
Protect the cultural and Aboriginal heritage values and visual character of rural and coastal towns and villages and surrounding landscapes.	The LALC have confirmed that the retention of the 'scarred' tree at an undisclosed and unmarked location within the littoral rainforest is their preferred solution. The visual analysis carried out as part of this application has also confirmed that the important view lines (from Rainbow Beach) are able to be retained and that the existing urban character of the area will absorb the future changes to occur within Area 14. Further, retention of the existing site lines from the site to important local geographic features (ocean, North Brother) can be retained with appropriate orientation of streets and buildings.
Where development or rezoning increases the need for State Infrastructure, the Minister for Planning may require a contribution to the infrastructure having regard to the NSW Government State Infrastructure Strategy and equity considerations.	Appropriate infrastructure is available to the site and a draft Voluntary Planning Agreement has been prepared to ensure such is provided in a timely manner. No State Infrastructure requirements have been identified to date.

Is the planning proposal consistent with the local council's Community Strategic Plan, or other local strategic plan?

The proposal is consistent with the Draft Urban Growth Management Strategy.

The objectives of that draft strategy are as follows;

Objectives	Response
Provide an efficient settlement pattern that will maximise residents' access to services and facilities and reduce the cost of infrastructure to private, public and community sector providers.	The Area 14 locality within which the site is located has been identified for future urban growth since the adoption of the Hastings Urban Growth Strategy in 2001. Area 14 is also recognised in the MNCRS as one of the major investigation areas within which growth will occur in the PMHC Local Government Area. This strategic plan has promoted the development of a 'village' between Lake Cathie and Bonny Hills, whilst maintaining and protecting its unique environmental features. The subject application is the culmination of detailed investigation which has each confirmed that the site can be developed, in accordance with the strategic documents, as set out in this submission.
Provide sufficient land to accommodate the kinds of households expected to be living in and visiting the area.	The proposed development will include a mix of low density, medium density and commercial / tourist uses in the Hilltop Village in generally in accordance with the Greater Lake

Objectives	Response
	<p>Cathie and Bonny Hills Urban Design Master Plan and the MNCRS.</p> <p>There is a deviation from the originally proposed area of medium density housing. This has been justified on that basis that such a high level of medium density housing is completely uncharacteristic of the area and unlikely to reflect what the market will demand. The footprint of the medium density proposed is smaller than the UDMP however the increased building height within the smaller footprint will lead to a yield closer to that proposed by the master plan.</p>
<p>Allocate land for employment growth and protect economic resources in line with population growth and suited to changing business enterprise needs and opportunities.</p>	<p>New employment opportunities will be available with the development of the proposed Hill-Top Village and tourist zones. There is also an employment areas within the greater Area 14 urban investigation area.</p>
<p>Conserve the natural environment and provide opportunities to extend valuable biodiversity lands and protect threatened species.</p>	<p>The key environmental consideration on the site is the protection and enhancement of littoral rainforest no 116. Specialist investigation, including groundwater studies, have been carried out by Martens & Associates in association with Ecologists to ensure minimal impact on the catchments associated with the rainforest. These investigations have confirmed that the groundwater and stormwater management can be appropriately managed.</p> <p>The protection of the rainforest also considers coastal erosion and sea level rise associated with climate change. The buffer between the existing rainforest and the proposed urban zone will be revegetated, managed and then fenced. The buffer accommodates the westward creep of the forest to 2100.</p>
<p>Integrate the Urban Growth Management Strategy with other Council strategic plans and land use plans, including planned infrastructure and facilities.</p>	<p>The proposed development is consistent with the Area 14 - Urban Design Master Plan, the Hastings Urban Growth Strategy and the draft Urban Growth Management Strategy.</p>

When the UGMS is adopted it will replace the previous Hastings Urban Growth Strategy 2001. The proposal is also consistent with that draft strategy.

Is the planning proposal consistent with applicable state environmental planning policies?

SEPP (Major Development) 2005

On 18th January, 2007 the Minister formed the opinion that the subject proposal was a Project to which Part 3A of the Act applied, pursuant to the provisions of SEPP (Major Projects) 2005.

On 1st July, 2009, amendments to SEPP (Major Projects) 2005 came into effect with the gazettal of SEPP (Major Projects) Amendment (Joint Regional Planning Panels).

Clause 6 of the amended SEPP (now known as SEPP (Major Development) 2005) identifies development that in the opinion of the Minister is a development to which Part 3A of Act applies.

In relation to the subject site, the future subdivision of residentially zoned land located in the Coastal Zone into more than 100 lots will still be a development to which Part 3A of the Act applies and the Minister's approval will be required.

The Part 3A application needs to be supported by an application to rezone the site. This is the purpose of this planning proposal.

SEPP 26 – Littoral Rainforests

The site directly adjoins and includes Littoral Rainforest No 116. The aim of this SEPP is;

"To provide a mechanism for the consideration of applications for development that is likely to damage or destroy Littoral Rainforest areas with a view to preservation of those areas in their natural state."

Relevant clauses of the policy include:

- Clause 4(1)(a) relates to land within the Littoral Rainforest boundary and Clause 4(1)(b) confirms that the Policy applies to non-residential land within 100 metres of the Littoral Rainforest boundary.
- Clause 6 confirms that any development within the Littoral Rainforest is designated development and Clause 6A clarifies the relationship of State Significant Development to the Policy.
- Clauses 7(1), (2) and (3) confirm that Council consent and the Directors' concurrence are required for any Development Application on land to which the Policy applies.
- Clause 7(6) states that Council's consent shall not be granted to a development or land use unless it is satisfied there is no place outside the area to which this Policy applies on which the development might suitably be located or occur.
- Clause 8(1) outlines the matters for consideration for concurrence, as follows;
 - any representation by or on behalf of the Director of National parks and Wildlife about the likely impact of the proposal on the environment;
 - the objectives and major goals for A National Conservation Strategy for Australia published by the Australian Government Publishing Service, Canberra, in 1984; and
 - if the carrying out of the proposal and the use (if any) thereafter of the land concerned for the purpose for which it will be used may cause destruction or disturbance of the natural environment, the public interest (if any) in the carrying out of the proposal in relation to the public interest in the preservation of Littoral Rainforest in its natural state.
- Clause 8(2) provides detail with respect to the public interest in relation to proposals as follows;
 - A proposal may be in the public interest for the purposes of subclause (1) notwithstanding that it benefits persons (by means including financial or other advantage) who are not public authorities or benefits those persons exclusively.

Consideration of land both within the rainforest and within 100m of the rainforest (non-residential) will require consideration under this policy.

In relation to this issue Peter Parker Ecological Consultant (PPEC) and Dr Brennan have analysed the existing and potential edge effects to the rainforest as a result of future residential development, in particular groundwater, in order to determine an appropriate buffer to minimise any potential impacts. The buffer also provides for the westward creep of the forest that will be required to accommodate coastal erosion caused by sea level rise from climate change (Refer Figure 17,

Figure 18 and Figure 19).

In considering whether proposed land uses within 100 metres of the rainforest edge meet the above aims it was agreed by the then Department of Infrastructure, Planning and Natural Resources (by letter dated 12 July, 2005) that the land uses within 100m of the SEPP 26 boundary may be negotiated, provided the proposed uses meet the objectives of the legislation. Scientific analysis regarding the buffer design was undertaken by PPEC and Dr Brennan, as follows:

- The condition of the whole of Littoral Rainforest No. 116 was considered during the Flora and Fauna Survey by PPEC and Dr Brennan that the greatest threat to the rainforest is currently via weed invasion along its eastern edge adjoining the beach.
- In considering land uses within 100 metres of the western edge of Littoral Rainforest No. 116 it is submitted that the aim of SEPP 26 to prevent damage by development to rainforest areas and to preserve such areas in their natural state will be best achieved by carrying out the buffer treatment works as outlined in this submission.
- The specific and detailed buffer treatment works on the western edge of the littoral rainforest exceed the recommendations made on the basis of scientific analysis by PPEC and Dr Brennan. Council commissioned Dr Steve Phillips to review PPEC and Dr Brennan's assessment. Biolink's report states "*The buffer is well designed and will provide a very high level of protection from all likely threats to the SEPP 26 rainforest*".
- The buffer treatment works outlined in the Project Application on the western edge of the littoral rainforest will be generally 40 metres wide and up to 60 metres wide adjacent to the existing regeneration area in Lot 4.
- The formalisation of the existing pedestrian track with boardwalk to limit human intrusion to other parts of Littoral Rainforest No. 116 is also considered to be consistent with the aims and objectives of SEPP 26 with a strong public interest benefit.
- It is proposed that the Planning Agreement between the landowners and the PMHC ensure that the residential development also meets the aims of SEPP 26 by facilitating the early establishment of an exclusion fence between the road and the 40 – 60 metre wide revegetation works. The immediate undertaking of these works along with an effective maintenance program will ensure that revegetation areas are substantial and well established prior to the completion of the initial residential development thereby providing immediate protection to Littoral Rainforest No. 116. Any fence will need to contribute to the amenity of the streetscape while providing adequate protection of the rainforest and regeneration area.
- Potential impacts on the groundwater regime have also been identified by Martens and Associates as significant to the ongoing viability of the littoral rainforest. Significant investigation into the existing groundwater conditions has been undertaken by Martens & Associates. Post development conditions have been modelled and specific recommendations have been provided. The most significant of these are the construction of bio-infiltration basins to improve infiltration to the aquifer supporting the rainforest and the prohibition of excavation below certain depths in certain areas.

The relevant technical reports are:

- [Area 14 Stage 1B Groundwater Study, Martens & Ass\(1\)](#)
- [Area 14 Stage 1B Groundwater Study, Martens & Ass\(2\)](#)

- [Dr Brennan correspondence 20060321](#)
- [Ecological Assessment, Biolink, June 2007](#)
- [PPEC correspondence 20060304](#)
- [PPEC correspondence 20070620](#)

The issue of the Littoral Rainforest No: 116 is discussed in greater detail in Section C - Environmental, social and economic impact.

SEPP 44 – Koala Habitat Protection

State Environmental Planning Policy No 44 – Koala Habitat Protection applies to the site.

An assessment of potential koala habitat was undertaken, pursuant to this policy, by Peter Parker, Environmental Consultants Pty Ltd, dated May 2002.

No koala food trees were recorded and it was therefore concluded that potential koala habitat does not occur on the site.

A [Koala Plan of Management](#) has been prepared for the Area 14 – Master Plan area. The KPoM does not identify any habitat of significance to koala's within the 1B Area.

SEPP 55 – Remediation of Land

The proponent has carried out a [Preliminary Site Investigation \(PSI\)](#) for Lot 4 DP 615261 and Lot A DP 374315, pursuant to the provisions of SEPP No.55 Remediation of Land. A full copy of this investigation is included attached to this Planning Proposal.

The investigation includes a review of the site history using Council and government records and aerial photographs, together with a site inspection and interviews with current and previous owners and occupiers.

The PSI identified that the past use of the site as a small general farm is unlikely to have caused contamination of land that would render the land unsuitable for future urban uses. Enquiries with Council confirm that the site is not listed as a potentially contaminated site and it is not listed on their contaminated sites register.

The PSI concluded that the land is suitable in its current state for the proposed future urban use.

SEPP 71 – Coastal Protection

This State Environmental Planning Policy 71 – Coastal Protection aims:

- To protect and manage the natural, cultural, recreational and economic attributes of the New South Wales coast, and*
- To protect and improve existing public access to and along coastal foreshores to the extent that this is compatible with the natural attributes of the coastal foreshore, and*
- To ensure that new opportunities for public access to and along coastal foreshores are identified and realised to the extent that this is compatible with the natural attributes of the coastal foreshore, and*

At present there is an informal access track through the Littoral Rainforest to Rainbow Beach. The track is used by residents of the existing residential estates to access the beach in this location, albeit over private property. The Part 3A Project Application includes a formalised track through the rainforest to the beach.

The proposed 1.5m wide boardwalk will provide an extension to the proposed 2.2m wide concrete cycleway / pathway which itself will be constructed as part of a future project application stage.

The boardwalk is proposed to commence at the eastern edge of the Littoral rainforest and continue through to Rainbow Beach. The entry is proposed to be a spring gated, self closing gate. Whilst the route of the boardwalk will align generally with the existing informal track, a number of existing trees have been surveyed to clearly define any minor departures. The boardwalk will 'weave' between these trees, such that no trees will require removal for its construction.

The eastern extent of the boardwalk includes a small 'bridge' to span an existing eroded gully area. Rehabilitation, including erosion control and planting will be undertaken within the minor gully, with such works included in the accompanying Vegetation Management Plan.

The majority of the boardwalk will be elevated above natural ground level and constructed from plastic decking material (Replas Enduroplank™, or similar). Upon crossing of the minor gully the boardwalk will be constructed as a 'board and chain' access way leading onto Rainbow Beach.

The formalised track is supported by fencing and landscaping to deter unauthorised access to elsewhere along the beach front and to encourage access via this single point.

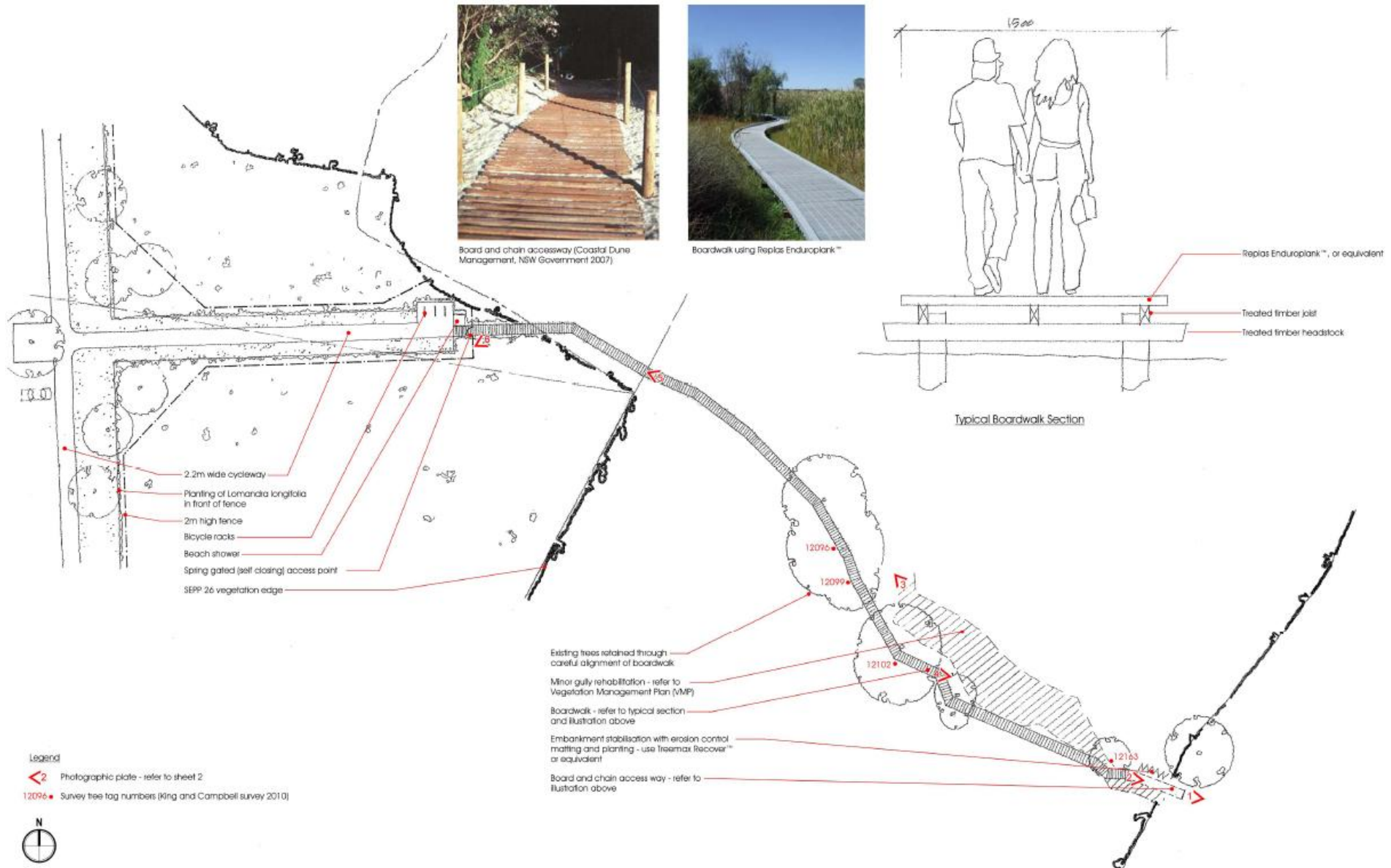


Figure 7: Proposed boardwalk from the site to Rainbow Beach through the littoral rainforest.

D. To protect and preserve Aboriginal cultural heritage, and Aboriginal places, values, customs, beliefs and traditional knowledge, and

A Cultural Heritage Assessment was prepared in February 2003 by Jacqueline Collins (Consultant Archaeologist).

The assessment considered Aboriginal cultural heritage as well as non indigenous cultural heritage. The assessment and the consultation was carried out in accordance with the draft Guidelines for Aboriginal Cultural Heritage Impact Assessment and Community Consultation (DECC July 2005) and the Interim Community Consultation Requirements for Applicants (DEC 2004).

The Birpai Local Aboriginal Land Council (LALC) was contacted at commencement of the assessment and assistance was provided by Senior Sites Officer Lindsay Moran.

During the field survey an artefact was recorded (AHIMS 30-6-0162). The artefact lies within an area zoned 7(f1) Environment Protection-Coastal. At the request of Birpai LALC the location of the artefact has not been made public.

The Cultural Heritage Assessment makes recommendations regarding the artefact and Duchess Gully. Whilst Duchess Gully is considered as a location of high archaeological sensitivity, no artefacts were found at this location. The following recommendations were developed through discussion with Lindsay Moran as the representative of the Birpai LALC:

“To ensure maximum protection for the Site 1B-1 scarred tree it is recommended that the current 7(f1) [Environment Protection-Coastal] zoning for the eastern margin of Lot 4 be retained”

That area is proposed to be zoned E2 – Environmental Conservation in the proposed zoning plan.

In assessing the Aboriginal cultural/social significance of the artefact, the Birpai LALC and MINGALETTA CORPORATION was consulted and the Cultural Heritage Assessment concluded that the artefact has a high level of general heritage value, enhanced by its proximity to the significant midden at Middle Rock Point. In addition, the Cultural Heritage Assessment concluded that the artefact is also of high scientific significance.

Community consultation with the Aboriginal Community was undertaken in accordance with the draft Guidelines for Aboriginal Cultural Heritage Assessment and Community Consultation Requirements for Applicants (DEC 2004) have now also been addressed.

By letter dated 30 October 2008 the NSW Department of Environment and Conservation provided a list of known Aboriginal stakeholder groups (other than LALC) for the mid north coast area. Individual letters were then sent to the each contact on the list in addition to the placement of an advertisement in five (5) local newspapers.

Correspondence was also received from the Office of the Registrar, Aboriginal Land Rights Act 1983, dated June 2009. This correspondence confirmed that the subject land does not have registered aboriginal owners.

A copy of the above correspondence together with copies of the newspaper advertisements is included as attachments to this submission. The notification process, including the wording of both the letters and public notices were reviewed and amended where requested by Mr Lindsay Moran.

The stakeholders were advised of the proposed works contained in the Concept Plan and the Stage 1 Project Application, including the provision of fencing to the western side of the

vegetated buffer to the rainforest. A low impact boardwalk or similar pedestrian access through the rainforest to the beach in the location of the existing tracks. These works in conjunction with the proposed revegetation works have been included in the Stage 1 Project Application. The aim of the Concept Plan Application and Project Application is to protect the rainforest from general pedestrian access and in so doing, restrict access to the Aboriginal artefact within the rainforest. In accordance with the wishes of Birpai LALC, the site will not be signposted or identified in any way.

In relation to the public notices in the local papers, a total of five (5) individuals made contact with King & Campbell following the exhibition period. Four of these individuals made general enquiries and appreciate the non-disclosure of the artefacts location and proposed protection measures. All four individuals advised that they do not require further contact in relation to the matter.

The fifth individual was Mr John Heath in his capacity as the Interim Secretary of the Bril Bril Traditional Owners (Birpai area). In response to his enquiry a letter was forwarded to Mr Heath setting out the history of the site and previous studies, the consultation process and the proposed management of the site as part of the Part 3A process. A copy of this correspondence is included at Appendix E. Mr Heath has made no further contact.

The formal exhibition of the Concept Plan and Stage 1 Project Application will provide further opportunities for public involvement and consultation in relation to this issue.

In conjunction with the formal exhibition period and in consultation with the Department of Planning it is proposed to conduct a public meeting during the exhibition period to provide an opportunity for community input. The Local Aboriginal Land Council is to be invited to this meeting. This undertaking is included in the Statement of Commitments.

E. To ensure that the visual amenity of the coast is protected, and

A view analysis has been undertaken as part of the Concept and Project Applications and had been included in this planning proposal. The view analysis identified those key topographic and geographic features of the area.

As the site is located within the greater Area 14 UIA, the landscape character of the locality will undergo extensive changes as each stage of urban development is undertaken. It is unreasonable to expect that the current character of Area 14 will remain in its current rural state.

The dominant natural feature of the locality is the existing littoral rainforest that will remain. The protection of this key landscape feature in its natural state is one of the primary objectives of the subject proposal.

The site itself is visually prominent, being elevated above the surrounding landscape and at a place where clear sight lines are available from Ocean Drive, being the only vehicular access between Lake Cathie and Bonny Hills.

The following locations are considered to represent significant view points of the site from the public domain:

- View A – View from Ocean Drive on approach to the site from the north. Ocean Drive deviates at the site towards the west; therefore the site will ‘close’ the view when proceeding south from Lake Cathie / Port Macquarie. North Brother Mountain can be seen on the horizon;

- View B - View from the medical centre entry on Ocean Drive to the site. The medical centre is a new development in the locality and the entry and exit driveway is directly opposite the site on Ocean Drive.
- View C – View from the headland at Bonny Hills on Ocean Drive north to the site. This view north from Ocean Drive provides extensive coastline views incorporating the subject site .
- View D - View from North Brother lookout north-east to the site. Extensive views of entire coastline are available from the public viewing platform at this well known and well visited lookout location.
- Views E, F, G, and H - Views from various beach locations west to the site. Rainbow Beach directly adjoins the site and the rainforest on its eastern boundary and represents a significant public viewing location.

In addition to the above, the extensive view from the site itself to the surrounding geographical features is considered significant. Retention of these views through appropriate street design and layout is considered an opportunity in the development of the site.

The following table provides a summary of visual assessment from the 5 locations (Views A to H) which have been chosen as representing the most significant viewpoints containing the site / proposed development. A copy of the reference plans follows Table 6.

Table 6: Summary of view analysis included as part of the Part 3A Concept and Project Applications.

View	Existing Character	Resulting Character	View Quality
A	<p>Location of this viewpoint on Ocean Drive is residential.</p> <p>The existing vacant and cleared site provides a 'rural' view (as does all of the Area 14 UIA), as the viewer proceeds south and leaves the existing residential area of Lake Cathie.</p>	<p>The proposed development is residential in character and will be consistent in scale, context and appearance with the existing residential areas of Lake Cathie. The site is elevated such that all built form will be readily accessible. Whilst the view will alter from that associated with a large vacant allotment, the locality can absorb this view change given its existing residential character. Moreover, the existing view of North Brother on the horizon will remain unchanged.</p>	<p>Whilst the potential building envelope shown in this photo represents contiguous buildings and includes the height of roof, the actual development envelope will incorporate various roof forms, setbacks to roads and buildings and site / street landscaping, all of which will combine to 'soften' this image.</p>
B	<p>The medical centre is a new development in the locality and the entry and exit driveway is directly opposite the site in Ocean Drive. The existing character of this location is residential.</p>	<p>As with the comments for viewpoint A above, the proposed development is residential in character and therefore will be consistent in appearance with the existing residential area on Ocean Drive. Whilst the view will alter from that associated with a large vacant allotment, the locality can absorb this view change given the existing residential character of the location.</p> <p>Similarly with the after photo for viewpoint A, the potential building envelope shown in this photo represents contiguous buildings and includes the height of the roof. The 'pink mass' in this photo represents 1 to 2 storey residential development only. As the viewpoint location is in close proximity to the site the residential development in the foreground will restrict views to the higher elevations of the site being the location of the medium density and mixed use zones.</p>	<p>The existing view of vacant rural land is not considered to be of a high view quality. The site is elevated and the viewpoint in this photograph is in close proximity to the site.</p>

View	Existing Character	Resulting Character	View Quality
		As with viewpoint A, the actual development envelope will incorporate various roof forms, setbacks to roads and buildings and site / street landscaping, all of which will combine to 'soften' this image. In particular, the mounding, landscaping and potential fencing associated with the proposed acoustic fencing will combine to restrict direct views into the residential areas. This is evident with the existing mature vegetation shown in the photograph.	
C	<p>View from the headland at Bonny Hills on Ocean Drive, north to the site. View C is available when travelling on the coast road between Lake Cathie and Bonny Hills.</p> <p>Elsewhere on Ocean Drive the views of the coastline are restricted by either vegetation or residential development. Adjoining the view location to the south (not shown in photograph) is existing residential development.</p>	The distance between the viewpoint location and the site is such that the change in the actual view of the site will be difficult to discern. In addition, the site represents a small component of the overall development which is to occur in Lake Cathie in accordance with the UDMP. The view of the coastline from this location will remain of a high quality.	The existing view quality is considered high.
D	<p>The view from the North Brother lookout is expansive, providing views along the coastline from Bonny Hills to Port Macquarie. Currently the site is visible and easily discernable as vacant land.</p> <p>The overriding character of the view is that of seaside/coastal development situated within large areas of open space/undeveloped land.</p>	Whilst the site is easily discernable from this viewpoint, it represents a very small component of the overall view. The distance between the viewpoint and the site is too great to distinguish detailed development, (i.e.; height and type of buildings etc). The proposed development will appear as coastal residential development, consistent with the residential developments of Laurieton, Lake Cathie and Bonny Hills. Therefore the resultant change to the view itself will be minimal and will not result in a significant change in visual character.	The view quality from this location is considered high.
E, F, G, H	<p>Rainbow Beach directly adjoins the site and the rainforest on its eastern boundary. The beach itself extends from the southern extent of the Lake Cathie residential area south to the Bonny Hills residential area.</p> <p>The beach and the adjoining rainforest area are the most dominant natural features of the locality. These areas are currently undisturbed and when on the beach in the vicinity of the site the existing nearby residential areas are not visible.</p>	<p>Preservation and retention of the existing beach and rainforest areas in their natural state, including the existing view lines onto the site from the public beach, is one of the primary objectives of the subject proposal.</p> <p>Accordingly four view lines from the beach area have been surveyed to gauge the impact of the proposed 3-4 storey development associated with the proposed 'mixed use' zone (Exhibits 09C - 4 sheets).</p> <p>These sections have confirmed that the dune height combined with the height and density of the existing vegetation restricts direct views onto site.</p>	The view quality from viewpoint 4 is of a high quality and must be protected.
I	<p>Viewpoint I depicts the existing views from the site to the geographic features of the locality. This view has been specifically depicted within this submission as it represents an opportunity in the future development of the site.</p> <p>The alignment of the lead in collector road and hilltop village main road has been partly determined by a development objective to enable</p>		

View	Existing Character	Resulting Character	View Quality
	retention of these views. The location of the proposed landscaped arrival / focus point will enable retention of these views.		

The proponents submission contains the following graphical representations supporting the view analysis.



Figure 8: Panoramic view from the site.



Figure 9: View from Ocean Drive on approach to the site from the north.



BEFORE



AFTER

Figure 10: View from the medical centre entry on Ocean Drive to the site.



VIEW C: VIEW FROM THE HEADLAND AT BONNY HILLS ON OCEAN DRIVE NORTH TO THE SITE



VIEW D: VIEW FROM NORTH BROTHER LOOKOUT NORTH-EAST TO THE SITE

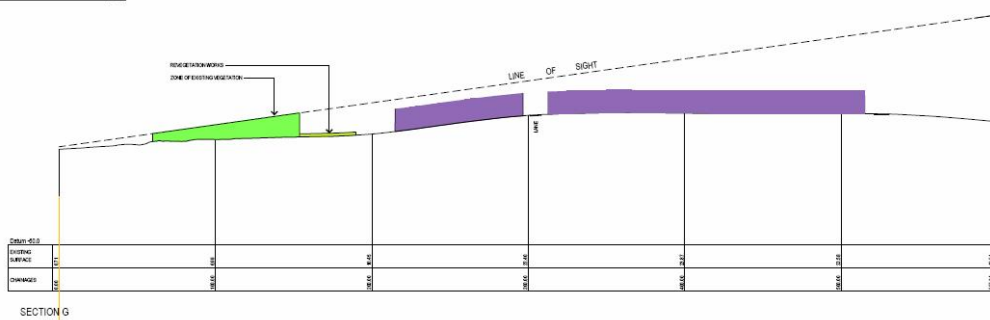
Figure 11: Views from key sites towards Area 14 - 1B.



SECTION LOCATION 1:10000@A3



VIEW G



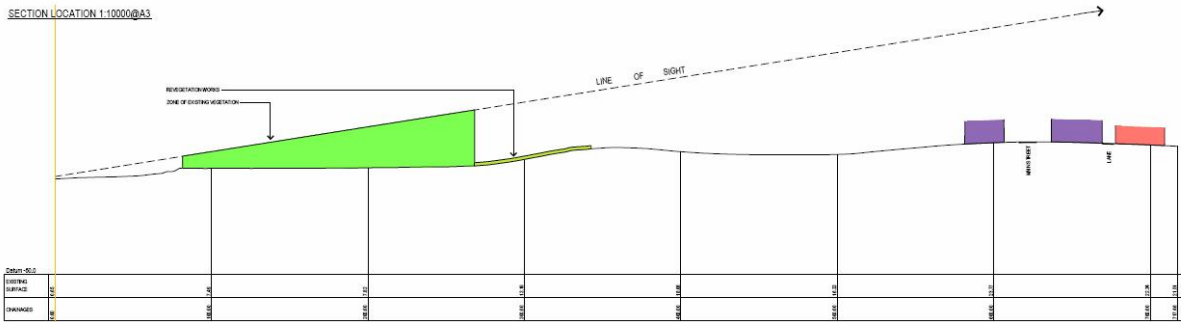
SECTION G

Figure 12: View to 'Hilltop Village' from Rainbow Beach.



VIEW H

SECTION LOCATION 1:10000@A3



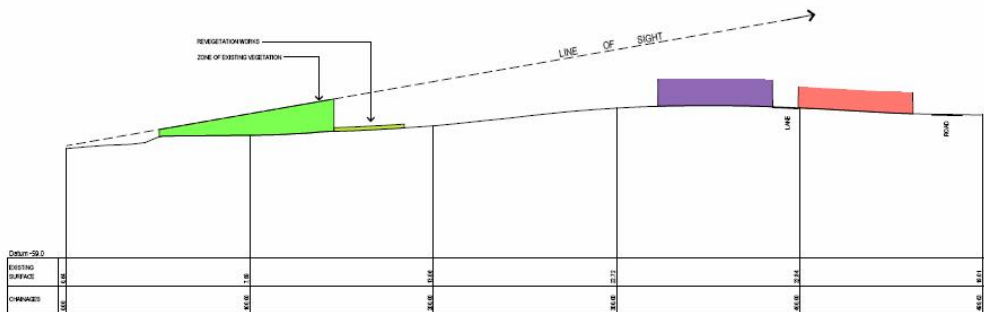
SECTION H

Figure 13: View to north from Rainbow Beach across the site.



VIEW F

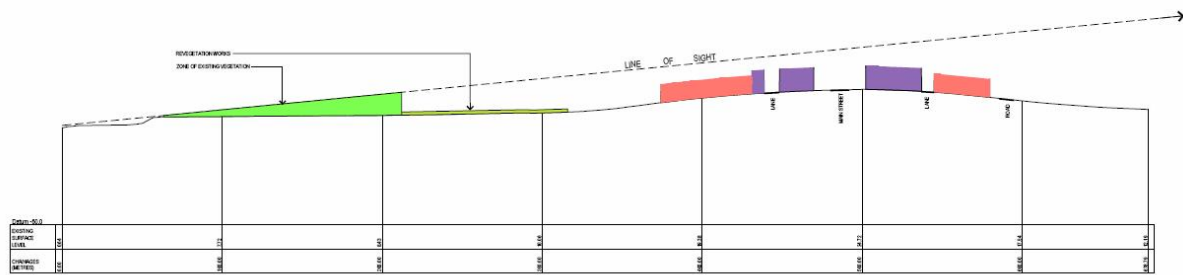
SECTION LOCATION 1:10000@A3



SECTION F



SECTION LOCATION 1:10000@A3



SECTION E
 Figure 14: View south west across the site from Rainbow Beach.

F. To protect and preserve beach environments and beach amenity, and

The key threat to the beach environment from the development is uncontrolled access to the beach through the littoral rainforest and dune. In a response to protect the littoral rainforest a single formal access track will be provided to the beach from the urban development.

The littoral rainforest and dune areas will be fenced with a minimum 2.0m fence along the complete site frontage.

No internal treatment along the track is proposed by the proponent.

The proposed track will be designed to minimise the impact on the dune system.

Access to the dune from the beach will remain unfenced and it is expected that this will not be necessary.

More detail on the proposed entry track is provided above.

Council will be seeking a change to the Project Application as submitted to bring the proposed fence from its existing proposed position, forward to the road and the entire area between the road and the rainforest to be revegetated with littoral rainforest species.

G. To protect and preserve native coastal vegetation, and

The key constraint on this site is the littoral rainforest and its protection. The protection of the rainforest has been discussed in detail in Section C - Environmental, social and economic impact.

H. To protect and preserve the marine environment of New South Wales, and

Extensive investigation supports this planning proposal in regard to the protection and preservation of the marine environment in this location. The protection of the littoral

rainforest, the allowance for coastal erosion, stormwater management, formalised beach access are some of the considerations that aim to protect the marine environment.

I. To protect and preserve rock platforms, and

Not applicable

J. To manage the coastal zone in accordance with the principles of ecologically sustainable development (within the meaning of section 6 (2) of the [Protection of the Environment Administration Act 1991](#)), and

The proposal is supported by a robust body of investigation. The bulk of the investigation on the site has been directed at the preservation and enhancement of the littoral rainforest. In particular, the groundwater and the coastal erosion investigations provide a scientific basis for the protection of this important coastal environment.

At present there is no formal management or maintenance regime in place to protect the rainforest although there has been some planting of pink-tipped bottle brush along the edge and the rainforest has very little weed infestation. Informal access is provided through the forest to the beach which is used by the residents of the adjoining estates.

The proposal provides a mechanism to fund the maintenance and enhancement of littoral rainforest and provide a means to construct a formalised pathway and appropriate fencing. There is also an opportunity to use the forest for educational purposes.

The rezoning will also capture the littoral rainforest and the buffer within an environmental management and conservation zone thereby providing additional statutory protection of the forest.

Without the proposed rezoning the site would remain rural and used for grazing purposes with continued access to the residents of neighbouring estates via the informal pathway. There would be no incentive for the landowner to provide any enhancement or protection to the rainforest other than that required under the various environmental instruments.

The development of the site is an appropriate mechanism to secure the ongoing protection of the littoral rainforest.

K. To ensure that the type, bulk, scale and size of development is appropriate for the location and protects and improves the natural scenic quality of the surrounding area, and

A detailed view analysis has been prepared and supports the application. The analysis has been described in detail above. The analysis demonstrates that the key views into, through and out of the site are maintained.

L. To encourage a strategic approach to coastal management.

The proposal is supported by the a hierarchy of strategic planning documents including;

- The Mid North Coast Regional Strategy;
- The Draft Urban Growth Strategy 2010;
- The Hastings Urban Growth Strategy 200x;
- The Area 14 Master Plan.

Clause 8 of the SEPP 71 – Coastal Protection are the matters for consideration and are as follows. Many of these have been addressed in the ‘aims’ above.

A. the aims of this Policy set out in clause 2,

These have been addressed above.

- B. existing public access to and along the coastal foreshore for pedestrians or persons with a disability should be retained and, where possible, public access to and along the coastal foreshore for pedestrians or persons with a disability should be improved,*
- C. opportunities to provide new public access to and along the coastal foreshore for pedestrians or persons with a disability,*

Currently there is no legal public access through the site to the Rainbow Beach in this location. An informal walking track located on the prolongation of the common boundary between Lot A and Lot 4 through the Littoral Rainforest to Rainbow Beach.

Improved public access will be provided by a public perimeter road and a suitably controlled pedestrian access way through the rainforest to Rainbow Beach. The provision of appropriate public access will ensure both the protection of the sensitive coastal area and enjoyment by the public of the unique environmental feature.

Due to the nature of the environment at this location and in particular the transition through the active dune system, there will be no opportunity for disabled access to Rainbow Beach at this location. The formalised walkway will provide better access and may provide opportunities for people with a mobility disability to experience the littoral rainforest. There are other opportunities at both Lake Cathie and Bonny Hills where access for persons with a disability is more readily and appropriately available.

- D. the suitability of development given its type, location and design and its relationship with the surrounding area,*
- E. any detrimental impact that development may have on the amenity of the coastal foreshore, including any significant overshadowing of the coastal foreshore and any significant loss of views from a public place to the coastal foreshore,*
- F. the scenic qualities of the New South Wales coast, and means to protect and improve these qualities,*

Refer AIMS E, F and K 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,*
- 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*
- I. existing wildlife corridors and the impact of development on these corridors,*

Refer AIMS G, H and I above.

- J. the likely impact of coastal processes and coastal hazards on development and any likely impacts of development on coastal processes and coastal hazards,*

Refer Section C - Environmental, social and economic impact.

- K. measures to reduce the potential for conflict between land-based and water-based coastal activities,*

Not applicable

- L. measures to protect the cultural places, values, customs, beliefs and traditional knowledge of Aboriginals,*

Refer AIM D above.

M. likely impacts of development on the water quality of coastal waterbodies,

Refer Section C - Environmental, social and economic impact.

N. the conservation and preservation of items of heritage, archaeological or historic significance,

Refer AIM D above and Section C - Environmental, social and economic impact.

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

The draft Urban Growth Management Strategy 2010, Hastings Urban Growth Strategy 2001 and Greater Lake Cathie and Bonny Hills UDMP 2004 are part of suite of development strategies that have been developed to encourage coordinated urban development outcomes across the Port Macquarie-Hastings area.

The UDMP included identification of three alternative future growth strategies. The preferred strategy is that of a new village which provides higher order needs for the new and existing two settlements of Lake Cathie and Bonny Hills. Deicke Richards provides the following reasons for preferring this model:

- Lake Cathie and Bonny Hills are separated, there is enough land that is well integrated and connected to the overall urban structure of Area 14 to accommodate new discrete neighbourhoods or villages between them;
- There are environmental corridors restricting the area of expansion around Lake Cathie and Bonny Hills;
- Larger portions of the site are in single ownerships. This allows appropriate areas of land for large scale uses; supermarkets, community facilities, schools, regional sporting facilities to be incorporated and their inter-relationships will readily be achieved;
- The land is undulating and elevated facilitating high quality urban design outcomes;
- The existing settlements will have less pressure and need for major redevelopment allowing them to easily retain their existing character;
- Street systems can be designed to accommodate a variety of lot sizes and housing types.

The UDMP included a zoning layout that provided for a range of housing types – including a large area of medium density within the Area 14 – 1B precinct. The proponent have now provided a smaller area of medium density around the proposed mixed use area and at each end of the precinct.

The departure from the UDMP was justified by the proponent on the basis that the proposed densities are significantly greater than the existing built form of the area and very different from what the market is presently demanding. The departure is further justified by the increased height proposed in the 'hill top' village.

P. only in cases in which a development application in relation to proposed development is determined:
(i) the cumulative impacts of the proposed development on the environment, and
(ii) measures to ensure that water and energy usage by the proposed development is efficient.

Not applicable.

SEPP - Rural Lands

Clause 7 of the SEPP sets out 8 “Rural Planning Principles” that must be considered in preparing any LEP amendments affecting Rural Lands.

- a) *The promotion and protection of opportunities for current and potential productive and sustainable economic activities in rural areas,*
- b) *Recognition of the importance of rural lands and agriculture and the changing nature of agriculture and of trends, demands and issues in agriculture in the area, region or State,*
- c) *Recognition of the significance of rural land uses to the State and rural communities, including the social and economic benefits of rural land use and development,*
- d) *In planning for rural lands, to balance the social, economic and environmental interests of the community,*
- e) *The identification and protection of natural resources, having regard to maintaining biodiversity, the protection of native vegetation, the importance of water resources and avoiding constrained land,*
- f) *The provision of opportunities for rural lifestyle, settlement and housing that contribute to the social and economic welfare of rural communities,*
- g) *The consideration of impacts on services and infrastructure and appropriate location when providing for rural housing,*
- h) *Ensuring consistency with any applicable regional strategy of the Department of Planning or any applicable local strategy endorsed by the Director-General.*

The proposed rezoning is assessed in against these principles as follows:

- The site has not been identified in any planning document, including the NSW Mid North Coast Farmland Mapping Strategy as being “prime” agricultural land or of regional significance for farming activities;
- No natural resources or areas of significant biodiversity or native vegetation would be adversely impacted by the proposal;
- The site has no forestry value or forestry industry potential;
- The site is not identified as being significant, or potentially significant in terms of its agricultural value;
- The site is within an established residential location and is surrounded by other urban, non-rural land-uses;
- The proposed to apply a residential zoning is consistent with the Mid North Coast Regional Strategy 2009.

Mid North Coast Farmland Mapping Project

This Mid North Coast farmland mapping document has sought to map and help protect the region’s most significant agricultural land. It identifies significant farmland parcels on a regional level in the local government areas of the Mid North Coast area, including the Port Macquarie - Hastings Shire.

The site is identified future urban land in the under the mapping project.

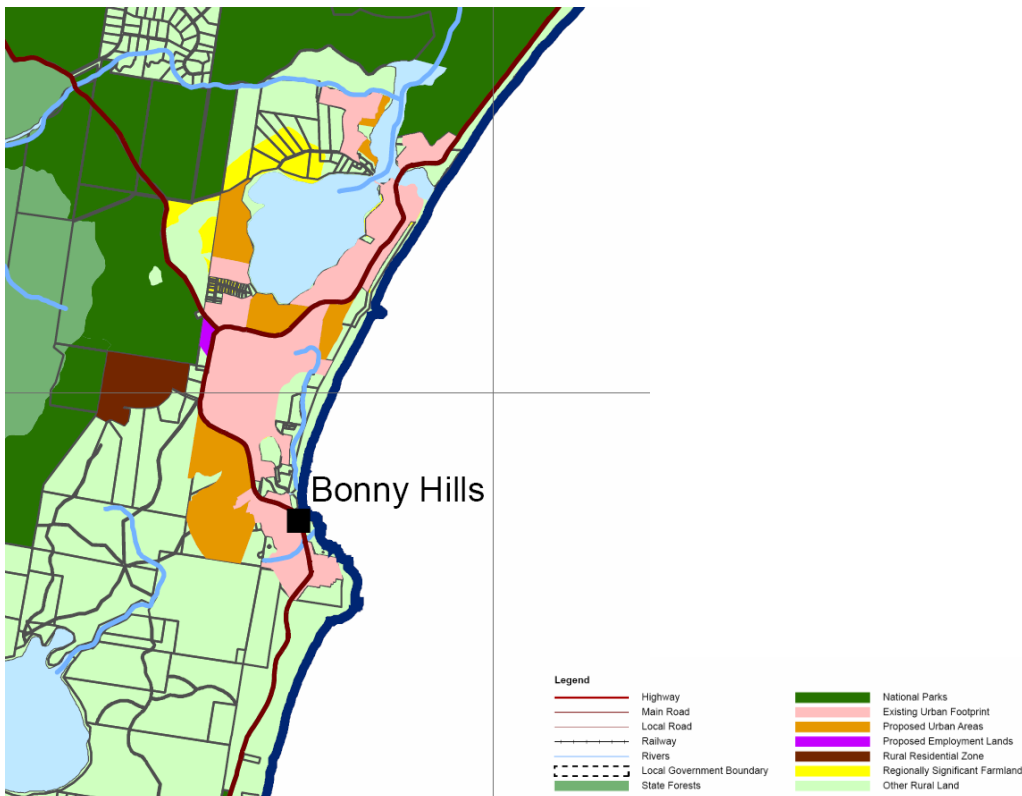


Figure 15: Mid North Coast Farmland Mapping Project

NSW Coastal Policy 1997

The New South Wales Coastal Policy is the Government's policy for the co-ordinated planning and management of the NSW coastline.

The overriding vision for the policy is the ecologically sustainability of the NSW coast. Therefore the policy is goal oriented and based on the principles of ecologically sustainable development (ESD). To express this vision, nine (9) goals have been developed, each with its own objectives and strategic actions.

Under the Coastal Policy the study site, being situated within 1km on the landward side of high tide, falls within the 'littoral coastal sub-zone'. Therefore in accordance with the policy the relevant strategic actions will primarily be in relation to, but not limited to, shoreline recession, climate change and coastal processes.

The nine goals embodied in the Coastal Policy are particularly relevant to the subject proposal.

1. Protecting, rehabilitating and improving the natural environment of the coastal zone;

Specific studies have been undertaken as part of this investigation to address flora, fauna and water quality in relation to the SEPP No 26 - Littoral Rainforest. The desired outcome in relation to these issues is to ensure the health and vitality of the existing natural environment in the public interest. Littoral Rainforest No 116 is the primary consideration in relation to any development of the study site.

2. Recognising and accommodating the natural processes of the coastal zone;

The natural processes of the coastal zone have been considered in the preparation of this submission, including the effects of climate change and flooding. Specialist studies have confirmed that these natural processes can be suitably managed and will not detrimentally affect the development of the site. SMEC's [Coastal Hazard Study](#) confirms that there is an

adequate buffer between the existing coastal line and the 'worse case' predicted coastal line as a result of sea level rise and climate change to 2100.

3. Protecting and enhancing the aesthetic qualities of the coastal zone;

A visual impact assessment has been undertaken which included the preparation of sight cross-sections from the beach to the site. These investigations support that whilst the site is highly visible from surrounding existing urban areas, the existing urban character can absorb the proposed view change without causing a significant change in visual character.

The assessment also found that the existing density, scale and height of the rainforest ensure that the site is not visible from the adjoining coastline of Rainbow Beach.

On this basis, it is determined that the development shall not have a detrimental impact on the aesthetic or scenic qualities of the coastal zone.

4. Protecting and conserving the cultural heritage of the coastal zone;

Aboriginal cultural and heritage values have been considered and addressed as a part of the proposal. Protection of the identified artefact will be assured with the provision of the buffer treatment which will restrict public access to the rainforest.

5. Providing for ecologically sustainable development and use of resources;

The proposal promotes the principles of ecologically sustainable development (ESD) including the conservation and protection of the sites flora and fauna and scenic attractions for future generations. The site is identified by the Department of Planning (DoP) in their Mid North Coast Regional Strategy identifies the site as 'future urban release area.

6. Providing for ecologically sustainable human settlement in the coastal zone;

The development of the site is consistent with Council's Strategic Framework for the area. Development is proposed which will enable a wider range of housing and lifestyle choices within a contained and well planned urban setting. All development will ensure minimal impact on the adjoining SEPP 26 Littoral Rainforest and ensure the viability of this natural asset for future generations.

7. Providing for appropriate public access and use;

It is intended that the buffer zone adjoining the Littoral Rainforest will be dedicated to Council for environmental management open space purposes. Appropriate pedestrian access can then be provided through the forest enabling enjoyment of this natural resource by the public. Suitable safeguards will be employed to ensure no detrimental impact on the rainforest.

8. Providing information to enable effective management of the coastal zone; and

It is expected that appropriate information for prospective purchasers of land adjoining the buffer to the Littoral Rainforest will be provided. It is also expected that the site will provide an opportunity to educate the public with potential to erect interpretive signage at an appropriate location/s.

9. Providing for integrated planning and management of the coastal zone.

Through satisfying these nine (9) goals and therefore their respective objectives and strategic actions, appropriate development for the study site can be realised. The protection and preservation of Littoral Rainforest No 116 is a primary objective of this study and the

recommendations of the consultants (Parker, Brennan, Jelliffe and Martens) form the basis for the buffer design as proposed in this study.

North Coast Regional Environmental Plan

The North Coast Regional Environmental Plan applies to the Port Macquarie-Hastings Council Local Government Area and the aims of this policy must be considered in relation to the preparation of a LEP.

The aims of this policy are:

- A. *to develop regional policies that protect the natural environment, encourage an efficient and attractive built environment and guide development into a productive yet environmentally sound future,*
- B. *to consolidate and amend various existing policies applying to the region, make them more appropriate to regional needs and place them in an overall context of regional policy,*
- C. *to provide a basis for the co-ordination of activities related to growth in the region and encourage optimum economic and social benefit to the local community and visitors to the region, and*
- D. *to initiate a regional planning process that will serve as a framework for identifying priorities for further investigation to be carried out by the Department and other agencies.*

The proposal to rezone the site is supported by a robust strategic planning framework including;

- The Mid North Coast Regional Strategy 2009;
- The Draft Urban Growth Management Strategy 2010;
- The Greater Lake Cathie Bonny Hills Urban Design Master Plan 2004
- The Hastings Urban Growth Strategy 2001.

These strategic planning documents are the outputs of the NCRLEP and the Mid North Coast Regional Planning Strategy.

The aims of this policy are covered in depth in the discussion of other legislative and policy throughout this Planning Proposal and therefore are not reiterated here.

Is the planning proposal consistent with applicable Ministerial Directions (s.117 directions)?

The relevant s117 directions are:

<i>S117(2) Direction – title & objectives</i>	<i>Draft LEP consistency – Council comments</i>
1. Employment and Resources	
<p>1.1 Business and Industrial Zones</p> <p>The objectives of this direction are to:</p> <ul style="list-style-type: none"> (a) encourage employment growth in suitable locations, (b) protect employment land in business and industrial zones, and (c) support the viability of identified strategic centres. 	<p>CONSISTENT</p> <p>There is a small village centre proposed within the precinct. The proposed zoning is B4 – Mixed Use to allow a variety of business and residential uses. The purpose of the centre is envisaged as convenience, entertainment and tourist-type boutique shopping given the close proximity of the village centre to the only beach access in the precinct. It is not expected to generate significant levels of the employment opportunities and is not expected to detract from the viability of the Area 14 – Village Centre.</p> <p>There is concern that the B4-Mixed use zone will be undermined by residential type uses. It is proposed to address</p>

S117(2) Direction – title & objectives	Draft LEP consistency – Council comments
	<p>this concern by including DCP provisions to encourage ground floor use for commercial or to provide the floor to ceiling height to accommodate future commercial uses on the ground and first floors.</p>
<p>1.2 Rural Zones</p> <p>The objective of this direction is to protect the agricultural production value of rural land.</p>	<p>INCONSISTENT</p> <p>The proposed rezoning is supported by the Mid North Coast Regional Strategy identified as Proposed Future Urban Release Area and Existing Urban Footprint.</p> <p>The site is identified as Proposed Urban Area and Existing Urban Footprint in the Mid North Coast Farmland Mapping Project.</p> <p>The site's proximity to existing urban areas and the site's isolation from other rural land undermines it's rural potential.</p>
<p>1.3 Mining, Petroleum Production and Extractive Industries</p> <p>The objective of this direction is to ensure that the future extraction of State or regionally significant reserves of coal, other minerals, petroleum and extractive materials are not compromised by inappropriate development.</p>	<p>NOT APPLICABLE</p> <p>There are no mining, petroleum production and extractive industries identified in the immediate area.</p>
<p>1.4 Oyster Aquaculture</p> <p>The objectives of this direction are:</p> <p>(a) to ensure that Priority Oyster Aquaculture Areas and oyster aquaculture outside such an area are adequately considered when preparing a draft LEP,</p> <p>(b) to protect Priority Oyster Aquaculture Areas and oyster aquaculture outside such an area from land uses that may result in adverse impacts on water quality and consequently, on the health of oysters and oyster consumers.</p>	<p>NOT APPLICABLE</p> <p>The site will not affect a Priority Oyster Aquaculture Area (POAA). The catchment drains to Duchess Creek.</p>
<p>1.5 Rural Lands</p> <p>The objectives of this direction are to:</p> <p>(a) protect the agricultural production value of rural land,</p> <p>(b) facilitate the orderly and economic development of rural lands for rural and related purposes.</p>	<p>INCONSISTENT</p> <p>The proposed rezoning is supported by the Mid North Coast Regional Strategy identified as Proposed Future Urban Release Area and Existing Urban Footprint</p> <p>The site is identified as Proposed Urban Area and Existing Urban Footprint in the Mid North Coast Farmland Mapping Project.</p> <p>The site's proximity to existing urban areas and the site's isolation from other rural land undermines it's rural potential.</p> <p>A detailed Local Environmental Study accompanies the application to rezone the land and supports its use for urban (and environmental) purposes.</p>
<p>2. Environment and Heritage</p>	
<p>2.1 Environmental Protection Zones</p> <p>The objective of this direction is to protect and conserve environmentally sensitive areas.</p>	<p>CONSISTENT</p> <p>The Littoral Rainforest No: 116 is the key environmental constraint to development on the site. There is a robust body of investigation that supports the development.</p> <p>The development will result in a superior level of protection to the littoral rainforest compared to what is there . The development includes the provision of a 40-60m revegetated buffer that will be zoned E2 – Environmental Conservation and E3 - Environmental Management.</p> <p>The buffer area will be fenced and a single path to Rainbow Beach will be formalised through the rainforest on the</p>

S117(2) Direction – title & objectives	Draft LEP consistency – Council comments
	alignment of the existing track.
<p>2.2 Coastal Protection</p> <p>The objective of this direction is to implement the principles in the NSW Coastal Policy.</p>	<p>CONSISTENT</p> <p>Council is in the process of finalising its draft LEP 2010 the accompanying pending LEP has been drafted to be consistent with this instrument.</p> <p>The draft Port Macquarie-Hastings LEP 2010 contains clause 5.5 <i>Development within the coastal zone</i> which is compulsory and gives effect to:</p> <p>(a) the NSW Coastal Policy: A Sustainable Future for the New South Wales Coast 1997, and</p> <p>(b) the Coastal Design Guidelines 2003, and</p> <p>(c) the manual relating to the management of the coastline for the purposes of section 733 of the Local Government Act 1993 (the NSW Coastline Management Manual 1990).</p> <p>This Planning Proposal provides detailed assessment against:</p> <ul style="list-style-type: none"> • The NSW Coastal Policy • SEPP71 – Coastal Protection • Coastal Design Guidelines • Mid North Coast Regional Strategy
<p>2.3 Heritage Conservation</p> <p>The objective of this direction is to conserve items, areas, objects and places of environmental heritage significance and indigenous heritage significance.</p>	CONSISTENT
<p>2.4 Recreation Vehicle Areas</p> <p>The objective of this direction is to protect sensitive land or land with significant conservation values from adverse impacts from recreation vehicles.</p>	<p>CONSISTENT</p> <p>Recreational vehicles are currently permitted on the stretch of beach from Middle Rock Point to Duchess Creek. There is only a single entry/exit point along this stretch at Middle Rock Point.</p> <p>No access is provided or proposed between the beach and the residential area.</p> <p>It is likely that as a result of this rezoning Council would review its existing policy in regard to recreational vehicle access along this stretch. However this would not be required until the area is populated.</p>
<p>3. Housing, Infrastructure and Urban Development</p>	
<p>3.1 Residential Zones</p> <p>The objectives of this direction are:</p> <p>(a) to encourage a variety and choice of housing types to provide for existing and future housing needs,</p> <p>(b) to make efficient use of existing infrastructure and services and ensure that new housing has appropriate access to infrastructure and services, and</p> <p>(c) to minimise the impact of residential development on the environment and resource lands.</p>	<p>CONSISTENT</p> <p>The draft Urban Growth Management Strategy 2010, Hastings Urban Growth Strategy 2001 and Greater Lake Cathie and Bonny Hills UDMP 2004 are part of suite of development strategies that have been developed to encourage coordinated urban development outcomes across the Port Macquarie-Hastings area.</p> <p>The UDMP included identification of three alternative future growth strategies. The preferred strategy is that of a new village which provides higher order needs for the new and existing two settlements of Lake Cathie and Bonny Hills. Deicke Richards provides the following reasons for preferring this model:</p> <ul style="list-style-type: none"> • Lake Cathie and Bonny Hills are separated, there is enough land that is well integrated and connected to the overall urban structure of Area 14 to accommodate new discrete neighbourhoods or villages between them; • There are environmental corridors restricting the area of expansion around Lake Cathie and Bonny Hills;

S117(2) Direction – title & objectives	Draft LEP consistency – Council comments
	<ul style="list-style-type: none"> • Larger portions of the site are in single ownerships. This allows appropriate areas of land for large scale uses; supermarkets, community facilities, schools, regional sporting facilities to be incorporated and their inter-relationships will readily be achieved; • The land is undulating and elevated facilitating high quality urban design outcomes; • The existing settlements will have less pressure and need for major redevelopment allowing them to easily retain their existing character; • Street systems can be designed to accommodate a variety of lot sizes and housing types. <p>The UDMP included a zoning layout that provided for a range of housing types – including a large area of medium density within the Area 14 – 1B precinct. The proponent have now provided a smaller area of medium density around the proposed mixed use area and at each end of the precinct.</p> <p>The departure from the UDMP was justified by the proponent on the basis that the proposed densities are significantly greater than the existing built form of the area and very different from what the market is presently demanding. The departure is further justified by the increased height proposed in the 'hill top' village.</p>
<p>3.2 Caravan Parks and Manufactured Home Estates</p> <p>The objectives of this direction are:</p> <p>(a) to provide for a variety of housing types, and</p> <p>(b) to provide opportunities for caravan parks and manufactured home estates.</p>	NOT APPLICABLE
<p>3.3 Home Occupations</p> <p>The objective of this direction is to encourage the carrying out of low-impact small businesses in dwelling houses.</p>	<p>CONSISTENT</p> <p>Home based child care and home occupations are permitted without consent in the R1 – General Residential Zone.</p>
<p>3.4 Integrating Land Use and Transport</p> <p>The objective of this direction is to ensure that urban structures, building forms, land use locations, development designs, subdivision and street layouts achieve the following planning objectives:</p> <p>(a) improving access to housing, jobs and services by walking, cycling and public transport, and</p> <p>(b) increasing the choice of available transport and reducing dependence on cars, and</p> <p>(c) reducing travel demand including the number of trips generated by development and the distances travelled, especially by car, and</p> <p>(d) supporting the efficient and viable operation of public transport services, and</p> <p>(e) providing for the efficient movement of freight.</p>	<p>INCONSISTENT</p> <p>The proposed development will not encourage the use of public transport being a low and medium density development isolated from the major town centres. Jobs and services are unlikely to be available in the immediate, 'walkable' area for sometime. The 'hill top' village is expected to be accommodate convenience, entertainment and tourist type development and therefore unlikely to be a significant generator of employment. A town centre is proposed in the adjoining precinct site and there is a small industrial area proposed south of Houston Mitchell Drive however these are unlikely to generate significant employment opportunities.</p> <p>The proposed 'town centre' and 'Hill Top' village when constructed may reduce the number of convenience trips but it is unlikely to reduce dependence on cars as the population's higher order needs will not be available in the area.</p> <p>There are linkages and good quality walking and cycling infrastructure proposed throughout the development area that integrates into the adjoining area.</p> <p>The 10.0m buffer proposed along Ocean Drive is also expected to include a shared cycle / walkway consistent with other infrastructure along that route. The ultimate configuration of Ocean Drive will also include a dedicated on-street cycle lane which will provide for both commuter and recreational on street cyclists.</p> <p>Bus services currently service the area and bus stops will be provided along Ocean Drive and into the estate as demand requires.</p> <p>The proposed rezoning has no implications for freight.</p>
<p>3.5 Development Near Licensed Aerodromes</p> <p>The objectives of this direction are:</p>	NOT APPLICABLE

S117(2) Direction – title & objectives	Draft LEP consistency – Council comments
(a) to ensure the effective and safe operation of aerodromes, and (b) to ensure that their operation is not compromised by development that constitutes an obstruction, hazard or potential hazard to aircraft flying in the vicinity, and (c) to ensure development for residential purposes or human occupation, if situated on land within the Australian Noise Exposure Forecast (ANEF) contours of between 20 and 25, incorporates appropriate mitigation measures so that the development is not adversely affected by aircraft noise.	
4. Hazards and Risk	
4.1 Acid Sulfate Soils The objective of this direction is to avoid significant adverse environmental impacts from the use of land that has a probability of containing acid sulphate soils.	CONSISTENT The draft LEP contains provisions to address the ASS risk on the site. Refer clause 7.11.
4.2 Mine Subsidence and Unstable Land The objective of this direction is to prevent damage to life, property and the environment on land identified as unstable or potentially subject to mine subsidence.	NOT APPLICABLE
4.3 Flood Prone Land The objectives of this direction are: (a) to ensure that development of flood prone land is consistent with the NSW Government's Flood Prone Land Policy and the principles of the <i>Floodplain Development Manual 2005</i> , and (b) to ensure that the provisions of an LEP on flood prone land is commensurate with flood hazard and includes consideration of the potential flood impacts both on and off the subject land.	CONSISTENT A small part of the site is flood affected. A flood impact assessment accompanies the application that demonstrates that the site is suitable for development subject to the recommendations of the Flood Impact Assessment. More detailed information regarding flooding is available at section /* insert reference */ of this planning proposal. The LEP contains provisions to address development on flood affected land. Refer clause 7.2.
4.4 Planning for Bushfire Protection The objectives of this direction are: (a) to protect life, property and the environment from bush fire hazards, by discouraging the establishment of incompatible land uses in bush fire prone areas, and (b) to encourage sound management of bush fire prone areas.	CONSISTENT The site is affected by bushfire. An indicative lot layout proposes to achieve protection through the use of perimeter roads and building setbacks. Any development on the site will be required to demonstrate adequate protection in accordance with clause 5.11 of the Port Macquarie-Hastings LEP 2010.
5. Regional Planning	
5.1 Implementation of Regional Strategies The objective of this direction is to give legal effect to the vision, land use strategy, policies, outcomes and actions contained in regional strategies.	CONSISTENT The area is nominated as Proposed Future Urban Release Area in the Mid North Coast Regional Strategy.
5.2 Sydney Drinking Water Catchments	NOT APPLICABLE
5.3 Farmland of State and Regional Significance on the NSW Far North Coast The objectives of this direction are: (a) to ensure that the best agricultural land will be available for current and future generations to grow food and fibre, (b) to provide more certainty on the status of the best agricultural land, thereby assisting councils with their local strategic settlement planning, and (c) to reduce land use conflict arising between agricultural use and non-agricultural use of farmland as caused by urban encroachment into farming areas.	The proposed rezoning is supported by the Mid North Coast Regional Strategy identified as Proposed Future Urban Release Area and Existing Urban Footprint. The site is identified as Proposed Urban Area and Existing Urban Footprint in the Mid North Coast Farmland Mapping Project. The site's proximity to existing urban areas and the site's isolation from other rural land undermines its rural potential.
5.4 Commercial and Retail Development along the Pacific Highway, North Coast The objectives for managing commercial and retail	NOT APPLICABLE

S117(2) Direction – title & objectives	Draft LEP consistency – Council comments
<p>development along the Pacific Highway are:</p> <ul style="list-style-type: none"> (a) to protect the Pacific Highway's function, that is to operate as the North Coast's primary inter- and intra-regional road traffic route; (b) to prevent inappropriate development fronting the highway (c) to protect public expenditure invested in the Pacific Highway, (d) to protect and improve highway safety and highway efficiency, (e) to provide for the food, vehicle service and rest needs of travellers on the highway, and (f) to reinforce the role of retail and commercial development in town centres, where they can best serve the populations of the towns. 	
5.8 Second Sydney Airport: Badgerys Creek	NOT APPLICABLE
6. Local Plan Making	
<p>6.1 Approval and Referral Requirements The objective of this direction is to ensure that LEP provisions encourage the efficient and appropriate assessment of development.</p>	<p>CONSISTENT The draft Port Macquarie-Hastings (Area 14 – 1B) pending LEP is based on the Standard Instrument LEP. The draft LEP is therefore consistent with this direction.</p>
<p>6.2 Reserving Land for Public Purposes The objectives of this direction are:</p> <ul style="list-style-type: none"> (a) to facilitate the provision of public services and facilities by reserving land for public purposes, and (b) to facilitate the removal of reservations of land for public purposes where the land is no longer required for acquisition. 	<p>CONSISTENT The proposal does include the provision of land for public purposes. A small area associated with the beach entry is proposed. This area will include car parking. This area adjoins a small park at the end of the proposed B4 – Mixed Use zone and provide visual and pedestrian linkages between that area and the beach entry.</p>
<p>6.3 Site Specific Requirements The objective of this direction is to discourage unnecessarily restrictive site specific planning controls.</p>	<p>NOT CONSISTENT Development on the subject land has been demonstrated to be appropriate ONLY where specific controls are in place to protect the integrity of the groundwater under the littoral rainforest. This requires specific controls in relation to maximum excavation above and below specified levels to ensure that groundwater recharge of the aquifer is maintained. An area based DCP will be exhibited with the Planning Proposal that will include provisions to protect the integrity of the groundwater and the littoral rainforest.</p>

Section C - Environmental, social and economic impact.

Is there any likelihood that critical habitat or threatened species, populations or ecological communities, or their habitats, will be adversely affected as a result of the proposal?

The flora and fauna report and ecological assessment considers a range of ecological issues within the subject site. These are summarised below and the detailed reports and correspondence are attached to this planning proposal.

The littoral rainforest is the most important environmental feature of the site and has been the focus of a number of specialist studies that were required to demonstrate to Council that proposed development will not adversely impact on the ongoing viability of the littoral rainforest in this location.

The default buffer requirement of 100m set by the SEPP 26 – Littoral Rainforest is proposed to be relaxed at the site to between 40-60m. The SEPP states:

7(2) A person shall not, without the consent of the Council, on land described in clause 4 (1)(b)¹, erect a building, disturb or change or alter any landform or disturb, remove, damage or destroy any native flora, or dispose of or dump any liquid, gaseous or solid matter.

(6) The Council shall not consent to an application made under subclause (1) or (2) unless it is satisfied, if the application is to erect a building, carry out a work, use land for any purpose or dispose of or dump any liquid, gaseous or solid matter, that there is no place outside the area to which this Policy applies on which the development might suitably be located or occur.

The draft Local Environmental Study was reviewed by GHD who flagged that additional assessment into the relationship between the groundwater and the littoral rainforest would be required to ensure that post development groundwater conditions did not undermine the forest's ongoing viability.

Specifically the GHD assessment identified the following refinements to the original study:

- To more fully document the existing groundwater regime;
- Assess in detail, the likely impacts of the proposed rezoning for Area 14, on local groundwater regimes which come about principally through modifications to the local water cycle (i.e. surface runoff and infiltration changes).
- Assess the requirements for a suitable buffer design. This includes not only set-back distance, but also any compensatory measure which would need to be included in the design (e.g. [planning, stormwater management and infiltration, environmental monitoring etc).
- Determine any initial and on-going site and buffer management requirements to ensure that the current groundwater conditions are maintained or modified as required.

¹ **4 Application of Policy**

(1) This Policy applies to:

(a) land enclosed by the outer edge of the heavy black line on the series of maps held in the Department and marked "State Environmental Planning Policy No 26—Littoral Rainforests (Amendment No 2)", and

(b) land not so enclosed but within a distance of 100 metres from the outer edge of that heavy black line except residential land and land to which State Environmental Planning Policy No 14—Coastal Wetlands applies.

An amendment to the Martens and Associates Groundwater report was prepared – (Amendment 1) addressing these issues. This amendment was prepared in collaboration with Biolink who were commissioned by Council to undertake an independent review of the ecological and related studies. The key outcomes of the groundwater and ecological investigations in terms of the protection of the littoral rainforest were:

- 1. We [Martens and Associates] broadly concur with the vegetated set-back or buffer approach provided by King & Campbell in the draft LES structure plan. On the basis of a proposed average 40 m planted distance, there are unlikely to be significant impacts on groundwater conditions below the SEPP 26 forest community.*
- 2. With consideration to the potential impacts of climate change on local hydrogeology, it is likely that groundwater re-charge and surface soil moisture conditions will be considerably reduced from existing conditions over the next 20-100 years. This being the case, we see that controlled urban runoff will provide a possible mechanism to supply additional water to the SEPP26 forest otherwise lost through reduced annual rainfall and increased evaporation.*

On this basis, we recommend that stormwater discharge control structures are fitted with variable or exchangeable orifice or weir plates that can be used to adjust flow rates to the recharge pits.

- 3. Deep stormwater infiltration pits (or trenches depending on final designs) should be constructed within or to the west of the planted buffer zone. These should be excavated so that they extend through the surface clay layer and intersect the lower sand aquifer. There should be good connectivity between the infiltration trench bed and the underlying permeable aquifer.*

The effect of this will be to ensure that surface water is allowed to rapidly enter the local groundwater table without excessively saturating surface soils except during extreme rainfall conditions. This mechanism will have the additional benefit of reducing some of the edge effects of the existing pasture which is likely to have raised surface soil moisture conditions adjacent to the SEPP 26 forest.

- 4. We recommend that water which does not infiltrate to the deeper groundwater system [ie. surcharges from the biofiltration units], is evenly distributed as it is released into the planted vegetated buffer area. Further to this, ground within the buffer area should be prepared in such a way so as to ensure maximum infiltration. This can be achieved by way of ground 'riffing' or minor contouring.*
- 5. The buffer revegetation programme should be undertaken as soon as possible so as to ensure that maximum evapotranspiration rates can be achieved as early a possible in the development process.*
- 6. Other than the deep infiltration pits / trenches, care should be taken within the development areas that groundwater is not significantly intersected and hence groundwater flow impeded or redirected. On the hillslopes, we suggest that excavations should preferably not exceed 2.5 m below ground level. If deeper excavations are required, then suitable mitigation measures should be included to ensure that groundwater flow is not redirected or permanently lowered. We do not believe that this will compromise future development, particularly given the likely lowering of groundwater tables in the urban zone.*

On the lower slopes, say below 12.5 mAHD (which excludes the majority of the residential development area), excavations > 1 m in depth (other than for the deep infiltration pits) should be plastic lined and backfilled with low permeability materials. This will minimise the impact of trenching for services and the stormwater system on

groundwater recharge and flow directions.

7. *For roads in low lying areas (say below 12.5 mAHD, we recommend that these should either be constructed to enable sufficient durability and bearing pressure under the assumption that the groundwater table may be close to or within the subgrade materials, or be designed somewhat elevated to sure that pavement and upper sub-grade materials do not become water logged.*
8. *OSD structures, including domestic rainwater tanks (where these are installed within the catchments) and other surface storages should be used to ensure that post-development flow rates approximate as close as possible pre-development flow rates.*

The report also includes a number of specific recommendations relating to the project application and detailed design phase and also details ongoing management responsibilities that will be required.

1. *More rigorous geotechnical investigations and design will be required for the design of the recharge pits. As a minimum, the following is recommended:*
 - a. *A series of 4 groundwater bores should be established along the SEPP 26 zone within the proposed revegetated buffer zone to document sub-surface conditions.*
 - b. *At each bore, further testing of saturated hydraulic conductivity in the underlying sand aquifer should be undertaken.*
 - c. *Measurements of storativity / specific yield should be made in order that the groundwater mounding from recharge pits can be minimised.*
 - d. *Each bore should be instrumented for a period of 6 months in order that long-term groundwater level fluctuations can be validated and incorporated into the design of recharge pits.*
 - e. *2 of the existing bores at higher elevations should be instrumented for the same 6 month period.*
2. *We recommend the establishment of at least 2 further monitoring bores within the SEPP 26 area (if this is possible) so that the current groundwater model for the study area can be extended to the coast as far as practical. Recommendations are:*
 - a. *Bores should be located in either sub-catchments C2 or C3 and shall be suitable licensed by the relevant consent authority.*
 - b. *Bores should be instrumented for the same 6 month period as noted above in item 1. Bores with the SEPP 26 area may need to be installed by hand or water jetting given the site sensitivity and difficulty of site access.*
3. *Further groundwater quality monitoring (notably nutrients) is recommended to provide better base-line groundwater quality data. This will assist with design of the bio-filtration units. In addition to those parameters already covered by this study, bound and unbound phosphorus levels should be determined in any future sampling. This will enable improved design of biofiltration units. We recommend at least 2 further rounds of water quality sampling being spaces 3-6 months apart from all established bores.*
4. *Groundwater salinity measurements should be further documented. We recommend continuous monitoring for the 6 month period noted in item 1 at three locations:*
 - a. *Within the SEPP 26 forest.*
 - b. *Within the revegetation area*
 - c. *An existing bore location further upslope.*

5. *Surface water sampling will be required to determine existing surface water nutrient concentrations. A minimum of 3 rounds of sampling during and following rainfall runoff periods is recommended. This will assist with design of the bio-filtration units.*
6. *A report will need to be prepared at the project application stage that provides the following:*
 - a. *An updated groundwater model for the area incorporating the findings of past and on-going groundwater investigations and monitoring. The model should demonstrate that post-development drawdown (-ve or +ve) is minimised or avoided altogether within the SEPP26 rainforest area.*
 - b. *A more detailed sea level rise groundwater model should be developed which would take into account of any effects of coastal recession. This would enable 'fine tuning' of the design of the groundwater recharge system(s).*
 - c. *Confirmation of the design of end-of-line stormwater structures. This should include on a sub-catchment basis, revised OSD requirements and a daily water balance modelling demonstrating that surface moisture conditions within the SEPP 26 rainforest will not be affected by the proposed stormwater management infrastructure.*
 - d. *Updated and appropriately supported designs of the stormwater recharge pit system.*

A review of the preliminary report prepared by Martens & Associates was undertaken by Biolink in 2007. Martens & Associates updated the report in response to Biolink's recommendations that is 'Amendment 1' dated July 2010. Biolink's comments are summarised as:

- The proposed buffer treatment to the rainforest was considered acceptable, subject to minor modifications to the detailed design elements of the area.
- The recommended amendments to the [Revegetation Management Plan](#) have been incorporated into the proposed RMP.
- The Biolink report also made recommendations in relation to the issue of the pedestrian access through the rainforest. Biolink generally supported the recommendations included in the Draft Local Environmental Study. In particular the use of a 2m fence along the western edge and boardwalk style was considered appropriate walkway with self-closing gated access. These two features are included as part of the Project Application proposal for the 'Stage 1' Environmental Works.

In addition to these studies, the [Coastal Hazard Study](#) prepared by SMEC models coastal erosion at the site as a result of sea level rise caused by global warming. Coastal erosion will undermine the littoral rainforest. The revegetated buffer will provide additional forest area to offset this possible loss.

In addition to the littoral rainforest the ecological investigations have also assessed other flora and fauna characteristics of the site.

The relevant supporting studies and correspondence are:

1. [Flora and Fauna Report, Peter Parker Environmental Consultants Pty Ltd and Dr Peter Brennan, May 2002](#)
2. [Parker correspondence, 6 March 2006](#)
3. [Brennan correspondence, 21 March 2006](#)
4. [Parker correspondence, 20 June 2007](#)
5. [Area 14 Stage 1B Groundwater Study, Martens & Associates, July 2007](#)
6. [Ecological Assessment, Biolink, June 2007](#)
7. [Flora and Fauna Survey, Peter Parker Environmental Consultants, July 2010](#)
8. [Area 14 Stage 1B Groundwater Study, Amendment No.1, Martens & Associates, July 2010](#)

Flora and Fauna

Ecological investigations of the site have been ongoing since 2002. A chronology of the ecological investigations is provided below:

- | | |
|-----------|---|
| May 2002 | Flora and Fauna Report, Peter Parker Environmental Consultants and Dr Peter Brennan |
| June 2007 | Peer Review of Flora and Fauna Report, Biolink Pty |
| July 2010 | Updated Flora and Fauna report, Peter Parking Environmental Consultants |

Flora and Fauna Report, Peter Parker Environmental Consultants and Dr Peter Brennan

Key findings;

- A total of eight (8) vegetation associations in five communities were recorded and mapped, including:
 - Littoral Rainforest – dominated by brushbox, beach acronychia, tuckeroo and watergum, with the Regrowth Littoral Rainforest dominated by blackwood and brown kurrajongs;
 - Open forest – dominated by grey ironbark and brushbox;
 - Woodland – dominated by coast banksias;
 - Swamp sclerophyll forest – dominated by pink-tipped bottlebrush, broad-leaved paperbark and swamp she-oak and by watergum and blackwood; and
 - Grassland – dominated by kangaroo grass and paspalum.
- The Littoral Rainforest is the most significant environmental feature of the site. It is one of the largest Littoral Rainforest remnants in the local area, is relatively weed free and not impacted by cattle grazing or other significant anthropocentric effects.
- The Littoral Rainforest is unique along the NSW coastline in its size, species diversity, small mammal assemblages and the virtual absence of rubbish dumping.
- An inspection of the western edge of the forest revealed that the micro-climate typical of the interior of the rainforest existed right up to the boundary of the rainforest. The edge appears stable and the vegetation along the boundary is in good condition with weed invasion being limited to the first few metres.
- Compensatory reforestation dominated by pink-tipped bottle brush was recorded in the regeneration area in Lot 4. Management of these plantings adjacent to the SEPP 26 Littoral Rainforest is well advanced with established plantings providing a complete canopy cover in parts of the planting area.
- One threatened plant species, the rough-shelled bush-nut was recorded within the rainforest area. However this planted specimen is not known in the wild south of the Clarence River.
- One vulnerable bat, the common blossom bat, was trapped at the site while foraging on coast banksias. Another two vulnerable species, the grey-headed flying fox and little bent-wing bat were recorded flying over the site. Other vulnerable species which have suitable habitat components at the site include the rose-crowned fruit-dove and greater broad-nosed bat.

In 2006 confirmation was sought from Mr Parker and Mr Brennan in relation to the findings of this initial report. By letter dated 6 March 2006, Mr Parker confirmed the following:

- The existing riparian vegetation within the south-west corner of the site (Duchess Gully) to be retained;
- The proposed buffer to the rainforest exceeds the recommended width within the 2002 flora and fauna report;
- That revegetation works on the eastern side of the rainforest will further enrich its biodiversity; and
- That the proposed revegetation species are consistent with that recommended by the report.

By letter dated 21 March 2006 Mr Brennan confirmed the following:

- That the proposed land uses within 100m of the rainforest meet the objectives of SEPP 26 and that the buffer is well designed and will offer a high level of protection; and
- That 3-4 storey buildings located approximately 70m from the rainforest edge will not create an eddy effect or increase salt deposition.

Ecological Assessment, Biolink, June, 2007

Council commissioned Biolink to peer review the initial PPEC 2002 report and supplementary comments made by both PPEC and Dr Brennan.

The key objectives of the peer review were:

- To review and update the threatened species records for the site, with reference to the TSC Act 1995 and the EPBC Act 1992;
- To review the preliminary outcomes of the groundwater monitoring and modelling undertaken by Martens & Associates;
- To determine necessary environmental setbacks and make recommendations with regard to land use in the vicinity of the rainforest, and
- To update the Revegetation Management Plan.

In relation to the above the Biolink report found the following:

- Threatened Species Update: One (1) endangered flora species and nineteen (19) vulnerable or endangered fauna species are considered likely to occur within a 5km radius of the site.
- The Littoral Rainforest is listed as an endangered EEC in Part 3, Schedule 1 of the TSC Act.
- Changes to the EPA Act 1979 since 2002 will now require a seven point test of significance.

Are there any other likely environmental effects as a result of the planning proposal and how are they proposed to be managed?

The following is a summary of the other likely environmental effects or constraints on the site.

A strategy for water cycle management and sustainable hydrology for the Concept Plan has been prepared and documented for the site. The proposed development will incorporate the principles of Water Sensitive Urban Design into water cycle management, and water supply will be augmented through the use of reclaimed effluent and rainwater harvesting via domestic tanks.

The proposed [stormwater management strategy](#) has been informed by the following studies:

- [Stormwater Quality Management Report](#), Jelliffe Environmental Pty Ltd, July 2002.
- Area 14 Integrated Water Cycle Management Plan, Storm Consulting Pty Ltd, August 2006.
- Groundwater Studies (2006, 2010) Martens and Associates.

The site is divided by a ridgeline which separates stormwater runoff draining to the east from that draining to the west. The eastern side falls naturally towards the SEPP 26 Littoral Rainforest, whilst the western side is divided again with the south-western catchment naturally falling towards Duchess Creek and the north-western catchment naturally falling to the north where it drains to an existing culvert under Ocean Drive and ultimately to Lake Cathie.

Further discussion on the stormwater management for the site is based on the following catchments:

Eastern Catchments - SEPP 26 Littoral Rainforest

The topography of the site is such that existing stormwater runoff from catchments in the east runs directly into the SEPP 26 Littoral Rainforest. As Crown Land it is administered by the NSW Department of Lands.

By letter dated 13 April, 2007, regarding the proposed Concept Plan, the Department of Lands noted the significant impacts that stormwater runoff can have on downstream environments, including:

- Erosion;
- Sedimentation;
- Altering the nutrient levels;
- Increasing levels of pollution;
- Spreading weeds; and
- Exacerbating flooding.

The letter noted that alternatives such as on-site pollution, retention and removal and infiltration and sub-surface discharge should be considered in the development of the Stormwater Management Plan. In addition the plan should include an assessment of potential impacts on the adjoining SEPP 26 Littoral Rainforest.

Martens & Associates Pty Ltd, Consulting Engineers (Martens) have assessed the impacts of the proposed development on the hydrologic regime of the SEPP 26 Littoral Rainforest, including both surface water and groundwater impacts. Martens have made a number of recommendations (Martens 2007 & Martens 2010) to address the concerns listed by the NSW Department of Lands, using both water quality measures, controlled discharge and groundwater recharge.

These recommendations have been incorporated into the proposed Stormwater Management Plan and will be reflected in the accompanying Development Control Plan for the site. Martens' water cycle strategy is based on replicating the existing surface water and groundwater conditions in the "post-development" phase.

The NSW Department of Lands has not made any suggestion that stormwater be directed away from the SEPP 26 Littoral Rainforest. The Littoral Rainforest has been and will continue to be dependent on existing runoff and groundwater recharge from the eastern catchments of the subject property.

Martens noted that *"With consideration to potential impacts of climate change on local hydrogeology, it is likely that groundwater re-charge and surface soil moisture conditions will be considerably reduced from existing conditions over the next 20-100 years. This being the*

case we see that controlled urban runoff will provide a possible mechanism to supply additional water to the SEPP 26 forest otherwise lost through reduced annual rainfall and increased evaporation.” (Martens 2010, p49).

The Storm IWCMP 2006 recommends that the SEPP 26 Littoral rainforest No 116 be preserved and protected by:

- Limiting development surrounding the rainforests and maintaining a buffer zone; and
- Ensuring that runoff through the SEPP 26 forest does not become an avenue for weed propagation.

Port Macquarie Hastings Council engaged Martens in 2006 to carry out detailed groundwater monitoring and modelling (as noted above). The Martens updated and amended 2010 report then responded to further issues raised by PMHC as follows:

- Providing further clarity in terms of groundwater impacts and management requirements.
- Providing supplementary information in relation to stormwater management adjacent to the SEPP 26 rainforest and integrating stormwater management systems with groundwater management systems.

The report and its amendment (Martens 2007 and 2010) detail the results of this work and make recommendations specifically relating to the management of stormwater discharging to the Littoral Rainforest.

The basis of the recommendations, which include the use of recharge pits for groundwater recharge, is to mimic the existing hydrological cycle as closely as possible. The measures detailed in Martens 2010 will achieve the above Storm IWCMP recommendations, to preserve and protect the SEPP 26 Littoral Rainforest.

The objectives of the updated work undertaken by Martens 2010 include:

- To more fully document the existing groundwater regime.
- Assess in detail the likely impacts of the proposed rezoning for Area 14 on local groundwater regimes which come about principally through modifications to the local water cycle (ie. Surface runoff and infiltration changes).
- Assess the requirements for a suitable buffer design. This includes not only set-back distance, but also any compensatory measures which would need to be included in the buffer design (eg. Planting, stormwater management and infiltration, environmental monitoring etc).
- Determine any initial and on-going site and buffer management requirements to ensure that the current groundwater conditions are maintained or modified as required.

The investigations undertaken by Martens resulted in the separation of the eastern catchment into four primary coastal sub catchments. The existing site conditions were established together with the existing groundwater conditions. This required the excavation of six sub-surface boreholes and the installation of six piezometers for monitoring the in site groundwater level. This was then followed by modelling to determine the post-development conditions and an assessment of the potential impact on groundwater level was undertaken for various densities.

The Martens 2010 report concluded and recommended a number of management measures to mitigate any potential impacts on groundwater conditions within or near the rainforest. These have been listed previously.

The major elements of the stormwater management strategy points of the scheme include the construction of three biofiltration basins that provide water quality treatment as well as providing detention storage and a facility to recharge groundwater.

Details of the location of these basins, the [MUSIC layout](#) and “[Drains](#)” stormwater results are attached to this planning proposal.

South Western Catchment - Duchess Gully

The south-western catchment of 10.23ha is proposed to discharge into Duchess Gully following treatment in a bio-filtration system. As this is the lower reaches of Duchess Gully stormwater detention will not be provided in order that stormwater volume from the site can travel downstream before stormwater volumes from catchments further upstream reach this point.

The [Flood Assessment](#) undertaken by Cardno confirms that the flood model has not allowed for any on-site stormwater detention in the SW catchment of the subject site. The emphasis for this sub-catchment is to provide water quality treatment prior to discharge into Duchess Gully, consistent with the approach of the Storm IWCMP (2006).

The IWCMP 2006 notes that *“increased levels of wetness associated with urban development are not likely to cause dieback of vegetation in or adjacent to Duchess Creek. ... The impact of low flows and in particular the increase in the frequency of low flows is not likely to impact on the long term stability of the lower section of Duchess Creek.”*

“This statement is based on the assumption that water quality measures will be put in place to control the additional nutrients that may be exported into the creek following urban development.”

The conclusions drawn for Duchess Gully in this location were as follows:

- A viable riparian corridor needs to be established to protect Duchess Creek from the impacts of development.
- Various WSUD features will need to be designed to minimise nutrient loadings on the creek.
- WSUD measures that lead to the reduction of flows into Duchess Creek should be implemented.

North Western catchment - Lake Cathie

The north-western catchment area of 9.18ha falls toward the bend in Ocean Drive where there is a natural surface depression. The proposed Stormwater Concept Plan works with the existing topography and formalises this depression to provide stormwater detention for the northern sub-catchment. The concept plan also incorporates a vegetated biofiltration area within the basin for treatment of stormwater runoff before it leaves the area.

The impacts of development on Lake Cathie were considered in the IWCMP 2006, which determined that adverse impacts of urban development on Lake Cathie would include an increase in nutrients and an increase in weed species. Therefore *“it was concluded that provided there is adequate stormwater quality treatment, the changes to the hydrological regime will have less of an impact on the SEPP 14 Wetland.”*

The conclusions drawn for SEPP 14 Wetland 509 – Lake Cathie were to *“preserve and protect coastal wetland (No.509) by:*

- *Providing viable riparian buffers on all waterways leading [to] the wetland.*
- *Minimising nutrient loads draining to the wetland arising from urban development.*
- *Trapping weed seeds prior to discharge into the wetland – use sand filters for this.*²

² The IWCMP was developed prior to the widespread adoption of biofiltration. The reasoning behind using sand filters is as an alternative to free water surface wetlands. Both treatment system types are able to reduce nutrient concentrations in the outflow; however filtration methods are also able to arrest the spread of weeds so are preferable over free water surface wetlands. The

- *Controlling the quantity, frequency and duration of stormwater runoff into the wetlands by using flow reduction measures without the need to develop specific flow management measures.*
- *Actively preventing the planting of non-native vegetation in all public areas.*
- *Promoting the use of native vegetation and dissuading the use of exotic plants among the existing and new communities.”*

Pollutant/Issue	Retention Criteria	
	IWCMP	AUS-SPEC
Coarse Sediment	80% of average annual load for particles ≤ 0.5mm	80% of average annual load
Fine particles	50% of average annual load for particles ≤ 0.1mm	100% retention of sediment greater than 0.125mm for flows up to the 3 month ARI peak
Total Phosphorous	45% of average annual pollutant load	45% of average annual pollutant load
Total Nitrogen	45% of average annual pollutant load	45% of average annual pollutant load
Litter	90% of average annual litter load > 5mm	100% of litter greater than 5mm for flows up to the 3 month ARI peak flow
Hydrocarbons, motor fuels, oils and grease	90% average annual pollutant load	No visible oils for flows up to the 3 month ARI peak flow

The proposal is to construct a detention basin that will also contain water quality treatment via an area of biofiltration. Modelling of the stormwater catchment has indicated that detention is required to ensure that the downstream drainage infrastructure is not impacted by additional flows associated with urban development.

King + Campbell has undertaken an analysis of the "Drains " model and determined that there is sufficient volume in the basin to provide the necessary detention to attenuate flows to the predevelopment levels. The DRAINS model confirmed that a volume of approximately 13,200m³ will be required within an approximate area of 7,500m², as indicated in Exhibit 08. The capacity of downstream drainage pipes, gullies and culverts (including under Ocean Drive near the on-site detention discharge point) were modelled and a sufficient volume for on-site detention is provided.

Water Quality

To achieve the aims of the IWCMP for each receiving environment, the IWCMP makes recommendations regarding appropriate stormwater quality criteria, as shown in the table. These recommendations are generally consistent with the criteria established by AUS-SPEC 2009 Development Design Specification (based on Australian Runoff Quality (ARQ)), which is also shown in the table below for comparison.

Preliminary modelling in the Model for Urban Stormwater Improvement Conceptualisation (MUSIC, Version 4.0) has also been carried out using the parameters recommended in the Gold Coast MUSIC Modelling Guidelines and rainfall data for the Lake Cathie locality provided by the Bureau of Meteorology.

The proposed stormwater treatment strategies have been modelled using the MUSIC modelling program, and results show that the above pollutant removal efficiencies adopted by Port Macquarie Hastings Council are met or exceeded.

The Stormwater Management Plan has the following implications for the subject Concept Plan:

proposed stormwater management plan for the site utilises biofiltration systems which operate similarly to sand filters in the trapping of weed seeds, but have more scope than sand filters for achieving higher pollutant removal efficiencies.)

- Further groundwater monitoring and modelling work is to be undertaken in the eastern sub-catchments that drain to the SEPP 26 Rainforest as part of the future Project Applications;
- Detailed modelling and design of the end-of-line stormwater facilities in the eastern sub-catchments incorporating stormwater quality, groundwater recharge and stormwater detention measures as part of future Project Application and Construction Certificate Applications;
- Detailed modelling and design of the end-of-line stormwater facility in the NW sub-catchment incorporating stormwater quality and detention measures;
- Detailed modelling and design of the end-of-line stormwater facility in the SW sub-catchment incorporating stormwater quality measures and conditions associated with a Controlled Activity Approval in relation to Duchess Gully.

Coastal Hazards

SMEC has prepared a [Coastal Hazard Study](#) for the site. The study examined the existing conditions of Rainbow Beach in this location and modelled the impact of sea level rise and its impact on coastal erosion.

The proximity of the site to Rainbow Beach and the evidence of coastal erosion north of the site in Lake Cathie required that the proponent assess the impact of natural beach recession on the proposed development and predict the impact of sea level rise.

Detailed technical studies using an updated empirical database have allowed for the quantification of the coastal hazards. The assessment has been made on the basis of detailed photogrammetric survey data and Aerial Laser Scan (ALS) survey data.

Using a combination of worst-case scenario assessment parameters, SMEC predicted that there would be no impact on the proposed development as a result of coastal hazards, as the proposed development is located landward of the coastal hazard zones over a 100 year planning period.

AS4997-2005 "Guidelines for the design of maritime structures" recommends that a storm event having a 5% probability of being exceeded over a 50 year period be adopted for risk analyses.

A large storm event occurred over the period of the photogrammetric data record in May-June 1974. The exceedance probability of this storm at Rainbow Beach is not known, but as it is one of the largest storms to have occurred over the period of the photogrammetric record, it was adopted for analysis. The signature of this storm could not be clearly seen in the photogrammetric data. However, the maximum measured erosion between 1970 and 1983, which encompasses this large storm event, was found to be 80 m³/m. An adopted storm erosion value of 200 m³/m was used, however, in line with previous assessments and to ensure a conservative (worst-case scenario) assessment.

The available photogrammetric data has indicated that Rainbow beach at Lake Cathie is undergoing low long term recession at a rate of around 0.01 m/year. Consequently, an allowance has been made for historic long term recession of 0.01 m/year.

The prognosis for a future sea level rise, as a result of global warming, could increase the rate of long term recession. Estimated sea level rise scenarios in line with the NSW Sea Level Rise Policy Statement, indicate a potential sea level rise of 0.40m by 2050, and 0.90m by 2100. This led to an assessment of beach recession of 25.2m by 2050 and 54.4m by 2100. It is possible that these estimates are high, as the Bruun analysis does not take the reduced erosion potential of the indurated sand ('coffee rock') strata into account.

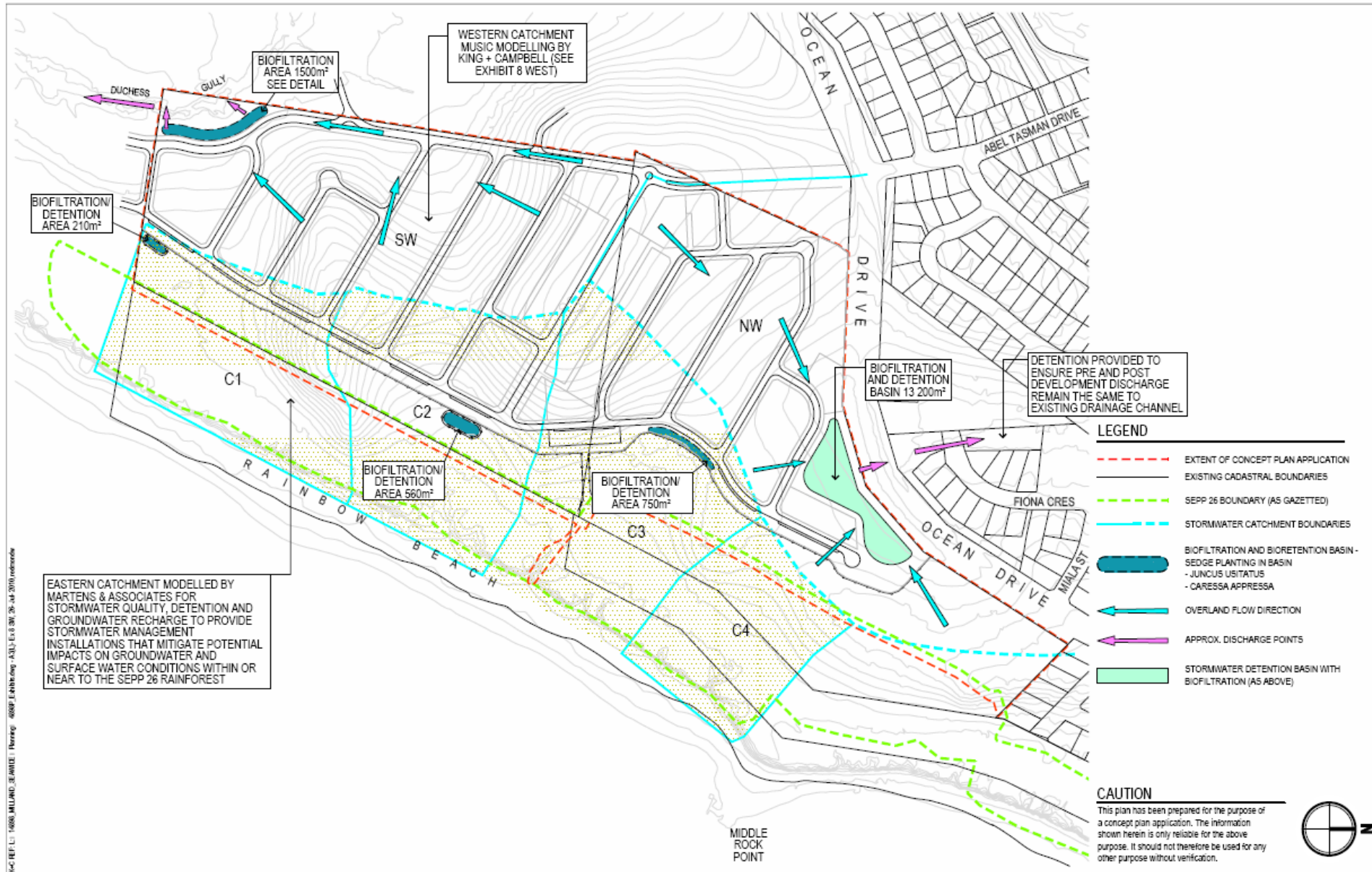
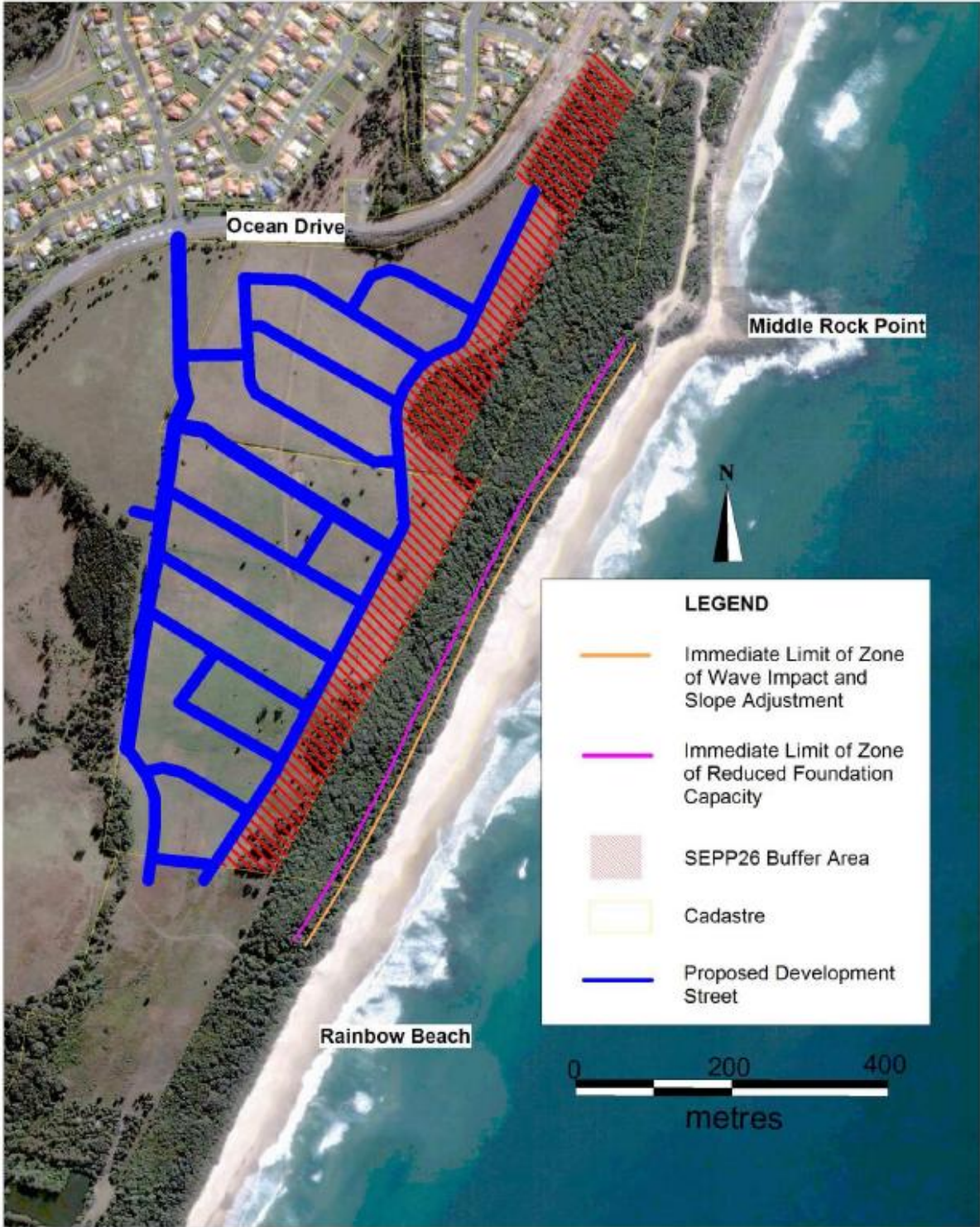


Figure 16: Indicative stormwater layout.



IMMEDIATE HAZARD ZONE

**COASTAL HAZARD STUDY
OCEAN DRIVE - LAKE CATHIE**
Figure 17: Immediate Hazard Zone (2010)



2050 HAZARD ZONE

**COASTAL HAZARD STUDY
OCEAN DRIVE - LAKE CATHIE**

Figure 18: 2050 Hazard Zone



2100 HAZARD ZONE

**COASTAL HAZARD STUDY
OCEAN DRIVE - LAKE CATHIE**

Figure 19: 2100 Hazard Zone

Despite the conservative (worst-case scenario) values of storm erosion volume chosen for the calculation of the hazard lines, the developed portion of study area would not be at risk nor be subject to reduced foundation capacity within a 100 year planning period.

Wave runup analysis for the design storm has indicated that maximum runup levels of 5.1m would not pose an inundation hazard to the two lots of the study area as the embankment height is above 7.5m AHD.

The secondary issue resulting from coastal recession caused by sea level rise is the ability of the littoral rainforest to adapt to the changing conditions. A buffer of between 40-60metres has been provided and zoned E3 – Environmental Management and will be managed to allow the littoral rainforest to ‘creep’ landward as the coast recedes.

SMEC also provided general advice on the design of a beach access way. Given the steepness of the dune (1V:4H or steeper) and the relatively high traffic that would occur on the access way at Rainbow Beach (as there would only be one access way for all beach users), the best options would be to use a board and chain walkway on the seaward face of the dune and pavers or an elevated walkway on the landward half of the dune.

The project application includes the proposed access way which proposed to adopt SMECs recommendation with the exception of the fence which they argue is unnecessary to deter access. Council does not agree with this approach as fencing has proven to be important to deter access at other popular beach sites along the coast. However it will reserve judgement pending advice on the matter from DECC and the Department of Lands during the consultation period of this and the Part 3A applications.

A schematic of the proposed track is at Figure 7: Proposed boardwalk from the site to Rainbow Beach through the littoral rainforest.

The proposed access way follows an existing informal track and includes works to rehabilitate a wash out along the route.

Traffic and Road Noise

Council commissioned Roadnet to prepare a [Traffic Impact Study](#) for the whole of the Area 14 Urban Investigation Area. The purpose of the study was to provide traffic information and advice sufficient to enable Council to plan for a road network that;

- Is safe and functional;
- Operates to an acceptable level of service (LOS) well into the future;
- Can be staged in an orderly and cost effective way to service planned land development; and
- Establishes a road hierarchy suitable for projected traffic patterns.

The modelling showed that Ocean Drive and associated roads within the study area are currently operating well within capacity. However, the roads do not have the capacity to cater for future growth, and the following upgrades and intersection treatments are recommended by 2019 (partial development):

- Ocean Drive requires two lanes northbound between Bonny View Drive and Abel Tasman Drive;
- Houston Mitchell Drive / Ocean Drive requires upgrading to a signalised intersection, which provides two through lanes along Ocean Drive. Pedestrian crossings are recommended across the Houston Mitchell Drive, Primary School Access and the southern approach of Ocean Drive;
- Houston Mitchell Drive requires two lanes eastbound between Forest Parkway and Ocean Drive with a ‘Keep Clear’ to be line marked at the give way intersection at the Industrial Precinct access;

- a signalised intersection is required on Ocean Drive at the proposed Commercial Precinct;
- Bonny View Drive / Ocean Drive requires upgrading to a roundabout with two lane approaches and circulating lanes;
- Abel Tasman Drive / Ocean Drive intersection requires upgrading to a signalised intersection with two lane approaches.
- a new roundabout intersection is required along Ocean Drive between Abel Tasman Drive and the Commercial Precinct. This roundabout requires two lane approaches and circulating lanes; and
- four lanes (two lanes in each direction) are required along Ocean Drive between the Houston Mitchell Drive and the Commercial Precinct.

By 2029 (full development), the following road network improvements are required:

- Ocean Drive requires four lanes (two lanes in each direction) between Bonny View Drive and Abel Tasman Drive;
- Houston Mitchell Drive / Ocean Drive intersection requires two right turn lanes from Ocean Drive north to Houston Mitchell Drive;
- Houston Mitchell Drive requires four lanes (two lanes in each direction) between Forest Parkway and Ocean Drive;
- The signalised intersection fronting the commercial precinct requires two lane approaches from both the commercial precinct in the south and residential area in the north. The right turn lane from Ocean Drive to the Commercial Precinct requires extension to 165 metres.

The proposed intersections are now being designed and will be costed for inclusion in s94 plans, Voluntary Planning Agreements or other funding mechanism.

The proponent commissioned Heggies Pty Ltd to prepare a [Traffic Noise Impact Assessment](#) for the precinct. The noise report reported on noise conditions at 2009 and modelled road traffic noise at 2029. The report adopts the ECTRN road noise standards for new residential land use developments affected by freeway/arterial traffic noise.

Table 7: ECTRN Road Traffic Noise Criteria

Type of Development	Criteria		Where Criteria are Already Exceeded
	Day 7am-10pm	Night 10pm-7am	
New residential land use developments affected by freeway/arterial traffic noise	LAeq(15hour) 55dBA	LAeq(9hour) 50dBA	Where feasible and reasonable existing noise levels should be reduced to meet the noise criteria via judicious design and construction of the development. Locations, internal layouts, building materials and construction should be chosen so as to minimise noise impacts.

Two (2) scenarios were modelled for the purposes of this traffic noise impact assessment:

1. Scenario 2009 – the baseline scenario which assumes 2009 traffic volume information with the Stage 1B Project developed; and
2. Scenario 2029 – the twenty (20) year projection scenario assuming predicted 2029 traffic volume information.

The predicted results from the model are represented in the following plans.

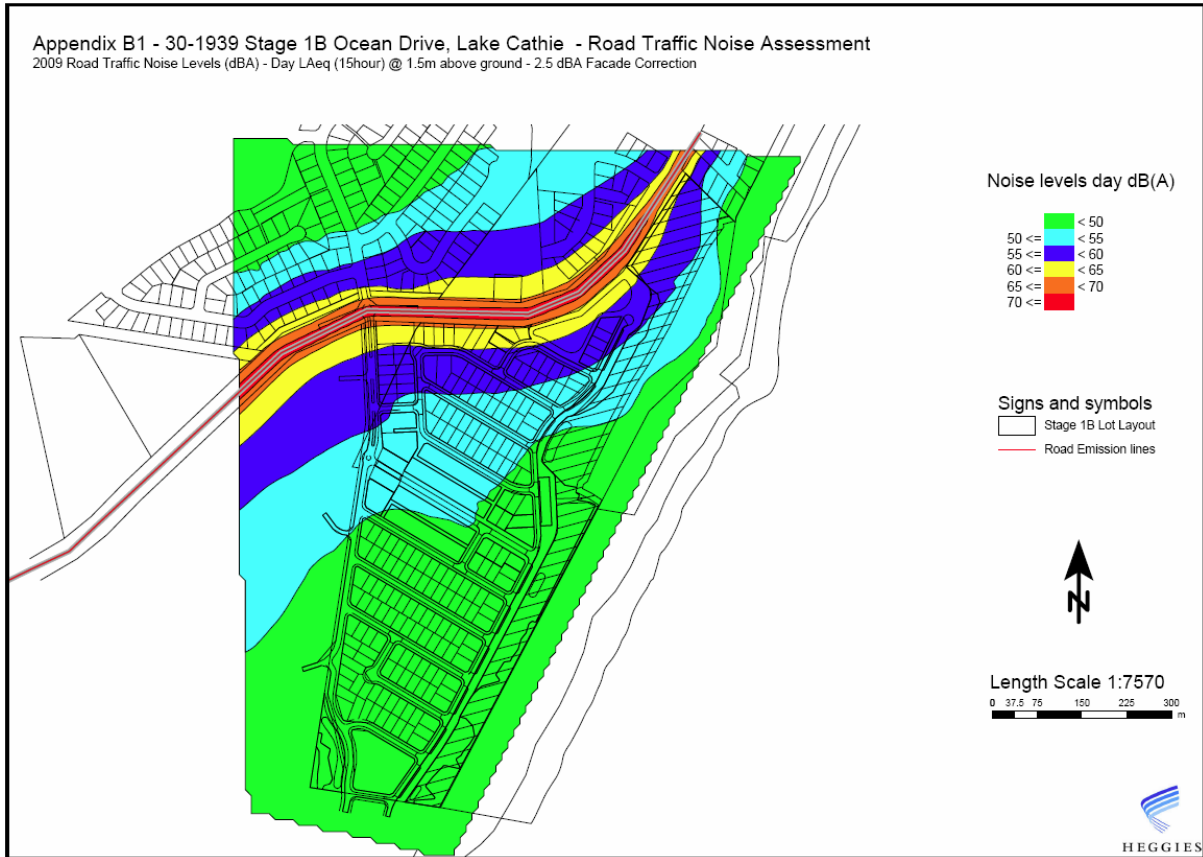


Figure 20: 2009 Road traffic Noise Levels (dBA) Day Leq(15 Hour)@1.5 above ground.

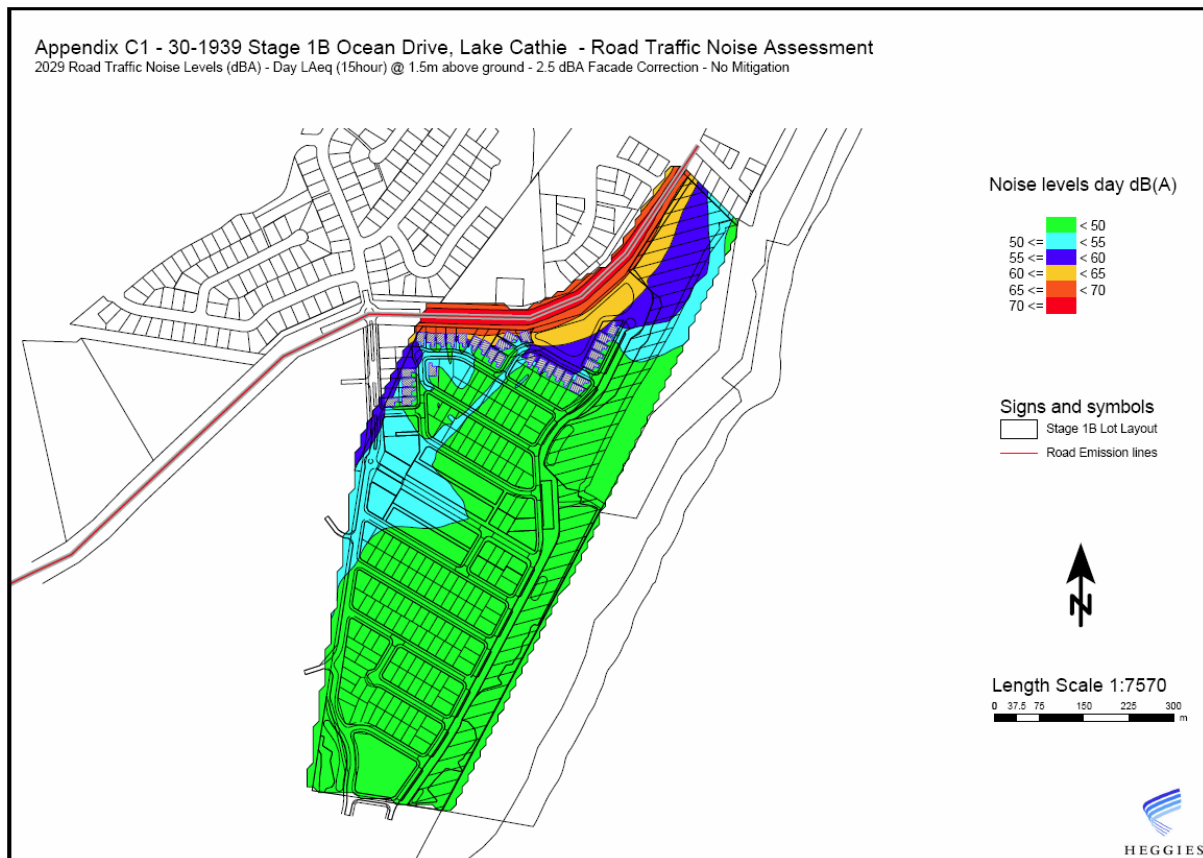


Figure 21: 2029 Road Traffic Noise (dBA) - Day LAeq(15hour) @1.5m above ground.

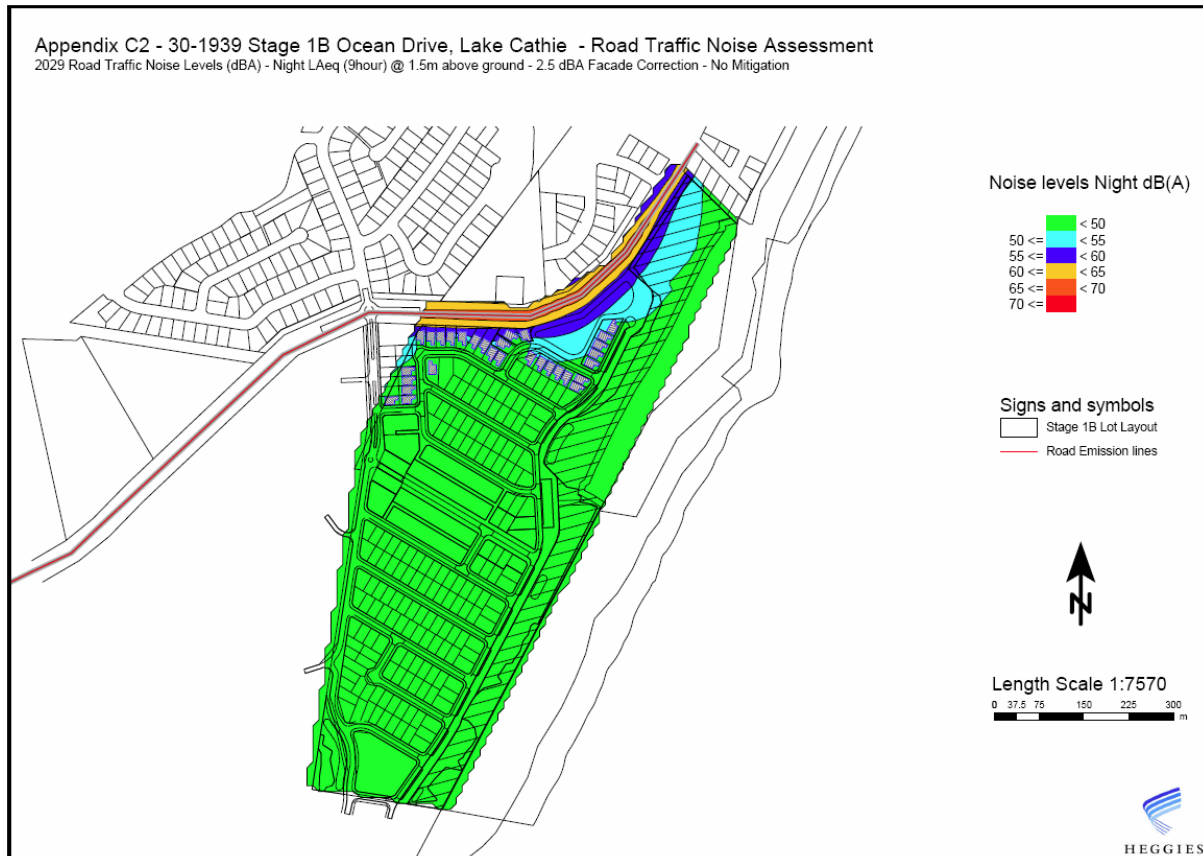


Figure 22: 2029 Road Traffic Noise (dBA) - Night LAeq(9hour) @1.5m above ground.

The report considers the following parameters in responding to the noise impacts and an appropriate response.

- Predicted exceedance of external day-time and night-time noise criteria;
- Visual amenity of the occupant;
- Visual aspect of the development from Ocean Drive;
- Residential occupation.

The report finds that noise barriers were considered to be the most effective means to mitigate traffic noise in an effort to meet the ECRTN external noise criteria for the Stage 1B Area 14 development. The favoured noise barrier configuration is a 2.0m wall along part of the site frontage.

Noise is an issue that affects each of the Area 14 sub precincts. Council wishes to achieve a corridor that is multi-modal, encourages walking and cycling, responds to its 'tourist route' designation and is safe. A considered and coordinated approach to noise along the corridor is needed to ensure that noise walls are not the only response.

Council is in the process of commissioning consultants to prepare a Corridor Plan to examine a range of issues along the route including noise. The corridor plan will consider all aspirations for Ocean Drive and present a plan that balances noise attenuation with urban design, road safety and function.

The study is expected to be completed by the end of 2010 and its recommendations included as part of the Development Control Plan for the precinct.

In this precinct the 2.0m barrier height and the need for the barrier only partially along the frontage means that noise can be dealt with relatively easily at this location. It is expected

that the Corridor Plan will support the partial use of physical barriers where these are low in height and used along part of the corridor.

The Heggies report is consistent with this in this location.

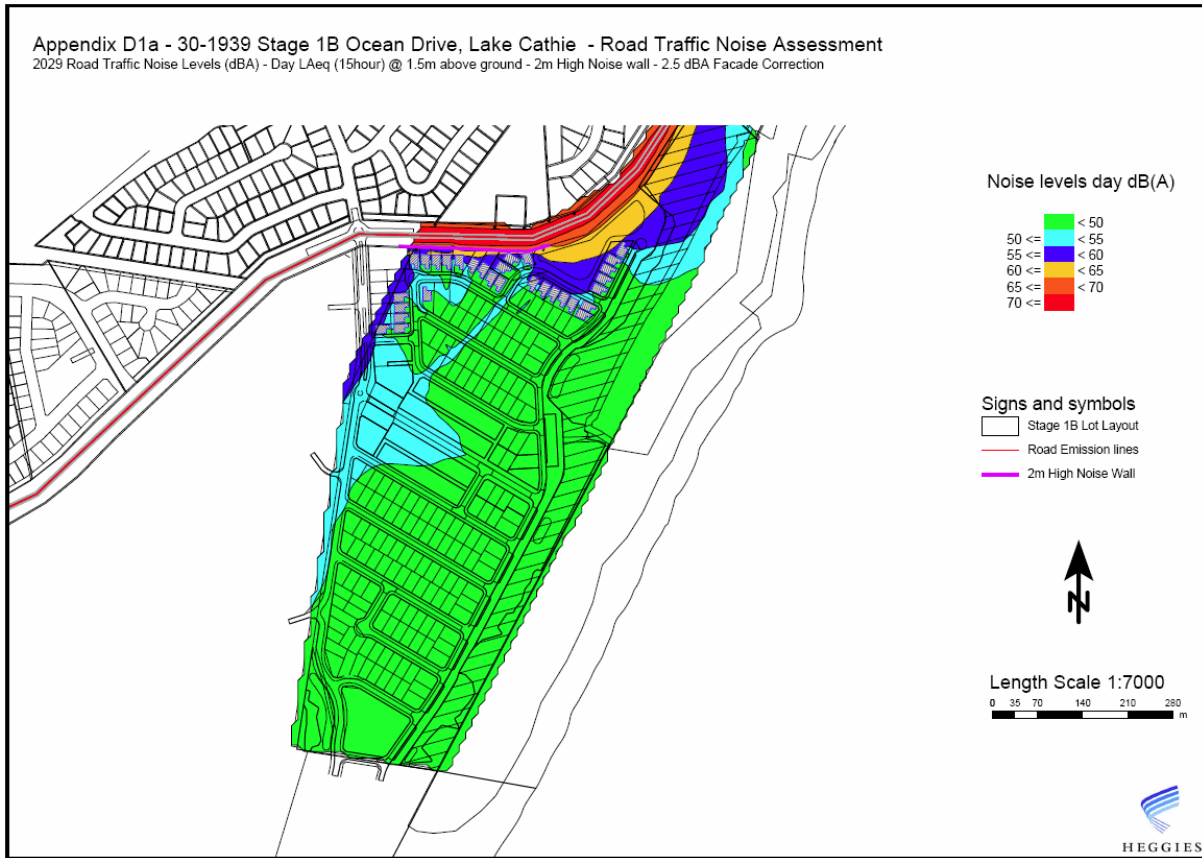


Figure 23: 2029 Road Traffic Noise Levels (dBA) - Day LAeq (15hour) @ 1.5m above ground - 2m High Noise wall - 2.5 dBA Facade Correction

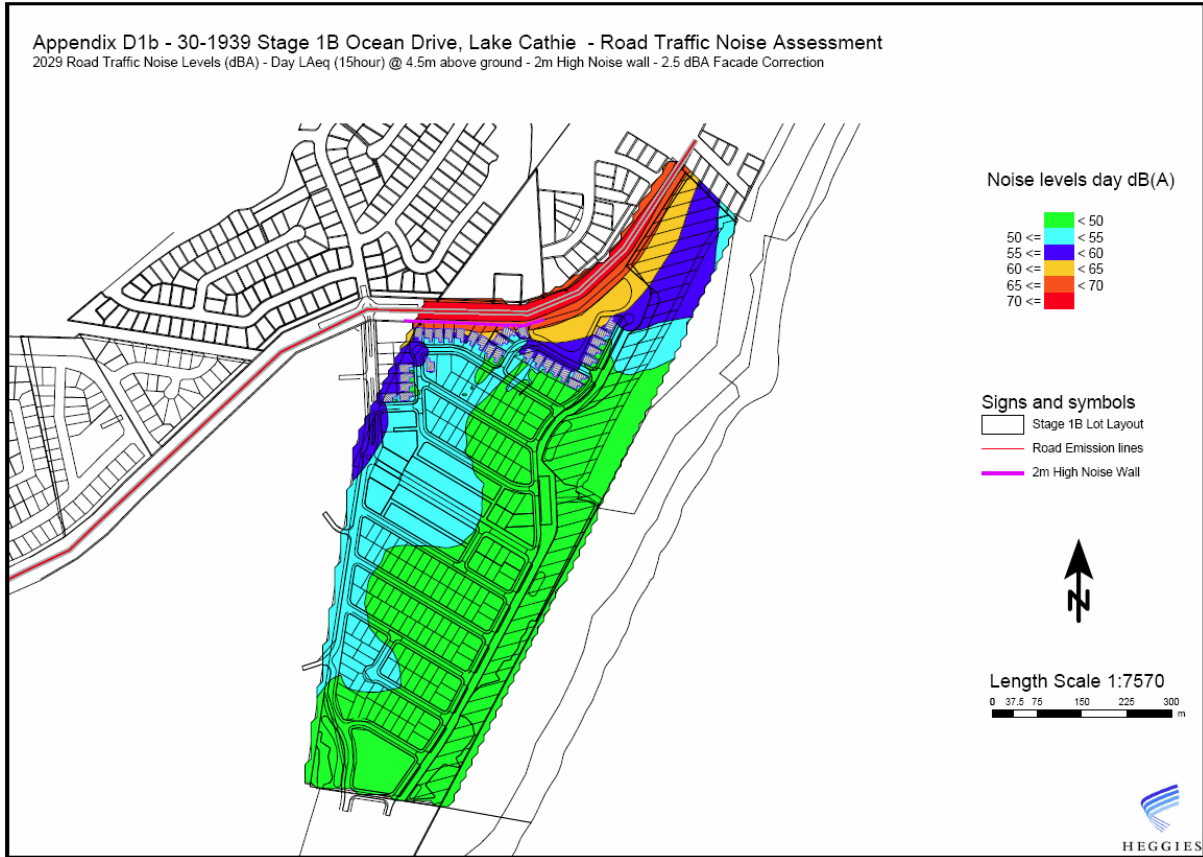


Figure 24: 2029 Road Traffic Noise Levels (dBA) - Day LAeq (15hour) @ 4.5m above ground - 2m High Noise wall - 2.5 dBA Facade Correction

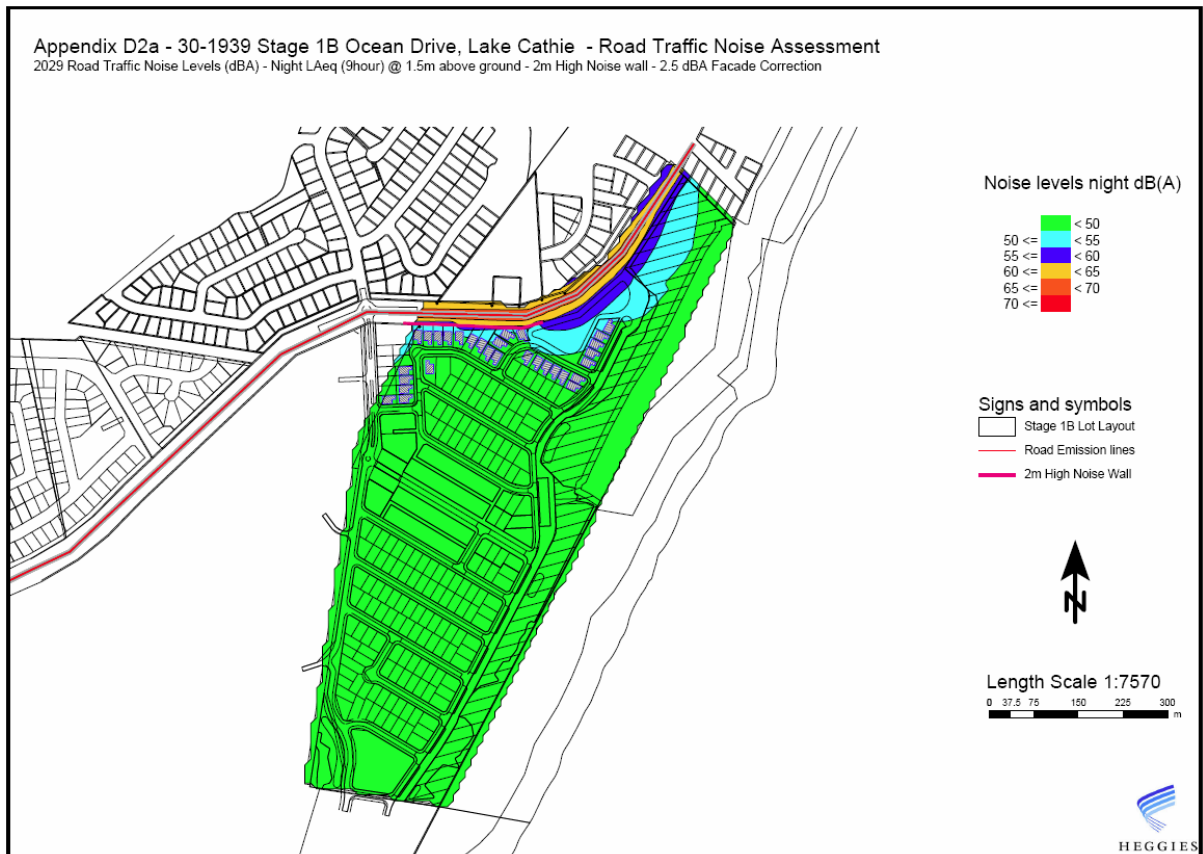


Figure 25: 2029 Road Traffic Noise Levels (dBA) - Night LAeq (9hour) @ 1.5m above ground - 2m High Noise wall - 2.5 dBA Facade Correction.

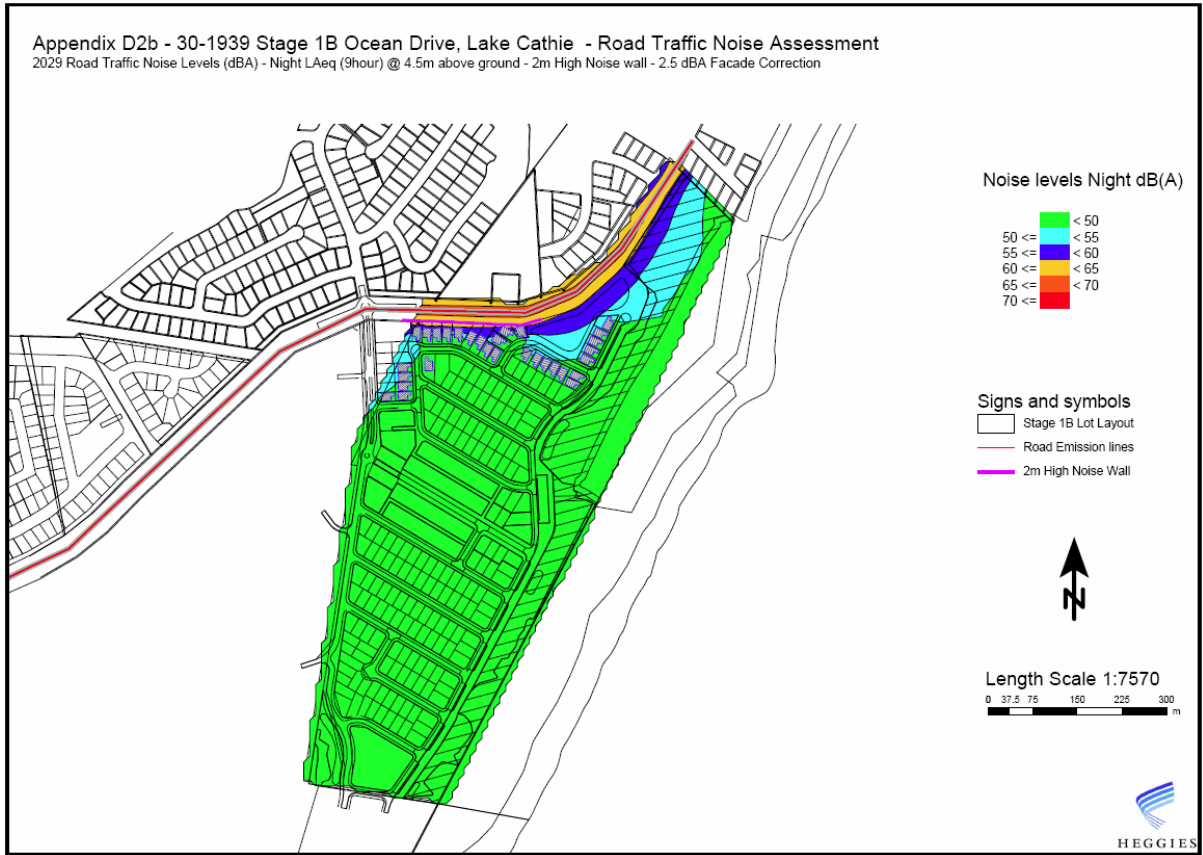


Figure 26: 2029 Road Traffic Noise Levels (dBA) - Night LAeq (9hour) @ 4.5m above ground - 2m High Noise wall - 2.5 dBA Facade Correction

Bushfire

A Bushfire Protection Assessment has been prepared for the site.

The BPA includes confirmation from the RFS that the vegetation is littoral rainforest and advises:

That provided that the proposed vegetation re-generation area is planted with rainforest species and the management of the vegetation is undertaken in accordance with the management protocols of the Revegetation Management Plan prepared by King & Campbell, the Rural Fire Service accepts the provision of a 20 metre wide Asset Protection Zone to the east of the future residential development within the site.

The BPA makes the following recommendations that have been adopted as part of the proposed development.

1. Asset Protection Zones shall be provided to the residential and tourist development to the widths as provided in the following tables.

Table 8: Bushfire Protection Assessment – Asset Protection Zones – Residential Development which adjoins Bushfire Prone Vegetation

Aspect	Vegetation within 140m of development	Predominant Vegetation Class (Table A2.1 of <i>PfBFP 2006</i>)	Effective Slope of Land	Required width of Asset Protection Zone	Width of Asset Protection Zone Provided	Compliance with RFS deemed to satisfy requirements
<i>East</i>	Littoral Rainforest	Rainforest	< 5 degrees upslope	10 metres	20 metres [width of perimeter road + setback to dwellings]	YES.
<i>West of central and south western corner of site</i>	Narrow corridor of Swamp Sheoak Forest	Rainforest [corridor less than 50 metres wide]	< 5 degrees downslope	10 metres for corridor of riparian vegetation	20 metres [road + setback to buildings]	YES.

Table 9: Bushfire Protection Assessment – Asset Protection Zones –Tourist Development [Special Fire Protection Purpose Development] which adjoin Bushfire Prone Vegetation

Aspect	Vegetation within 140m of development	Predominant Vegetation Class (Table A2.1 of <i>PfBFP 2006</i>)	Effective Slope of Land	Required width of Asset Protection Zone	Width of Asset Protection Zone Provided	Compliance with RFS deemed to satisfy requirements
<i>East</i>	Littoral Rainforest	Rainforest	< 5 degrees upslope	30 metres	Minimum 30 metres	YES.

2. Defendable Spaces shall be provided to the commercial development to the widths as nominated in the table below:

Table 10: Bushfire Protection Assessment – Defendable Space requirements to Commercial Development adjacent to Bushfire Prone Vegetation

Aspect	Vegetation within 140m of development	Predominant Vegetation Class (Table A2.1 of <i>PfBFP 2006</i>)	Effective Slope of Land	Required width of Defendable Space – Flame Zone width	Compliance with RFS deemed to satisfy requirements
East	Littoral Rainforest	Rainforest	< 5 degrees upslope	> 8 metres	YES.

3. The Asset Protection Zones / Defendable Spaces shall be maintained as an Inner Protection Area.
4. An 88B Covenant, under the Conveyancing Act 1919, shall be applied to the title of those lots so burdened, to ensure the long term maintenance of the Asset Protection Zones / Defendable Spaces.
5. The proposed public access roads shall be constructed to comply with the specifications of Section 4.1.3(1) of Planning for Bushfire Protection 2006.
6. A hydrant water supply shall be installed in accordance with the specifications of Australian Standard A.S 2419.2 - 2005. Hydrants shall have a flow rate of 10 litres / second and be located on the opposite side of the road from the bushfire threat. Blue hydrant markers shall be provided to locate the positions of the hydrants. The markers shall be positioned on the hydrant side of the centreline of the road pavement.
7. Future buildings which are erected on those lots having exposure to the bushfire prone vegetation shall be constructed to Level 1 standards in accordance with A.S 3959 – 1999 – ‘Construction of Buildings in Bushfire Prone Areas’.

Planning for Bushfire Protection 2006 also requires that all buildings constructed within 100 metres of bushfire prone vegetation shall be constructed to comply with Level 1 standards in accordance with A.S 3959 – 1999 – ‘Construction of Buildings in Bushfire Prone Areas’.

The report confirms that the proposed development conforms to the deemed-to-satisfy specifications of *Planning for Bushfire Protection 2006* and the specific advice provided by the NSW Rural Fire Service.

Flooding

The proponent has undertaken a flood assessment for the part of Duchess Creek that traverses the south-western corner of the site. Most reaches of Duchess Gully have been extensively modified by man-made drainage channel improvements and additions. Parts of the lower reaches of Duchess Gully, particularly through the south-west corner of the site and along eastern boundary of the St Vincent’s Foundation site, retain areas of original forested habitat.

The watercourses of Duchess Gully and its tributaries are the central features of an open space corridor which extend through the adjacent ‘*St Vincent’s Foundation*’ site. Two, Part 3A applications (Concept and Project Applications) are being assessed by the Department of Planning on that site presently.

The Project Application involves extensive modification of the Duchess Gully including the excavation and construction of a 12.7ha lake. The proposed lake and associated stormwater management devices will significantly modify the characteristics of the central corridor and Duchess gully.

Significant catchments west of Ocean Drive drain into the upper reach of Duchess Gully and into the Upper Tributary entering from the north. The man-made elements then direct flows

into a large existing man-made lagoon which was constructed during previous development south of the site. Flows from this lagoon bypass the original middle reach flow path of Duchess Gully via a man-made culvert discharging to an overflow channel connected directly to the lower reach of Duchess Gully.

The middle reach of Duchess Gully passes across the south-west tip of the development site which lies adjacent to the north-east boundary of the St Vincent's Foundation land. Approximately 10.23 hectares of the development site drains into Duchess Gully at this point.

Flood levels on the south-west corner of the development site are dictated by the behaviour of Duchess Gully stream which in turn is controlled by waterway development features on the St Vincent's Foundation site. This study considers all development on the two sites together as a single hydraulic system as a result.

The proposed development within the Duchess Creek catchment within the subject site includes mainly residential development, revegetation works along Duchess Creek and the construction of a biofiltration basin with approximately 470 cubic metres of fill.

The attached flood assessment analyses different development scenarios including:

1. Existing Development
2. Future Urban Development with Constructed Wetland
3. Proposed Outlet Structures
4. Proposed Channel Improvements
5. Conditions on the Milland/Seawide Property
6. Results for 100 Year ARI Rainfall Event – Developed Conditions
7. Comparison of results – 5, 10, 20, and 100 Year ARI Events
8. Flows at Hydraulic Control Structures

It also tests effects of proposed fill on the development site and includes sensitivity testing of the models on;

- Storm duration;
- Ocean Storm Surges – “Tail water”, levels in Duchess Gully;
- Low Tide Conditions; and
- Climate change impacts.

The key finding of the flood assessment are summarised as follows;

Inundation levels in existing residential areas along the southern boundary of the site on Duchess Gully are not worsened by the proposed developments within the Duchess Gully catchment including the present development proposals for the subject site.

Reclamation fill levels in the proposed residential areas will be constructed to a freeboard of 0.5 metres above the 100 Year ARI event water levels or higher. This conservative approach minimises inundation risk beyond the normal required standard.

Residential lots will also be constructed to a freeboard of 0.5 metres above local 100 Year ARI water levels for drainage systems designed in accordance with Port Macquarie Hastings Council requirements under AUS-SPEC 2003.

Road crossings over flow paths within the proposed development will be designed to provide 100 Year ARI event immunity.

It is a requirement of Council's Interim Flood Policy (PMHC 2007) that house floor levels be constructed with a freeboard of 0.8 metres above the 100 Year ARI event water levels. This requirement ensures that house floor levels will generally be higher than the surrounding allotment fill levels.

The contours for the proposed development site enable inundation-free evacuation routes via the internal road system to higher ground along Ocean Drive for all significant rainfall events.

Local roads may be partly inundated during major storm events to the extent allowed under drainage design limits set out in AUS-SPEC 2003.

The plotted data shows that the open space corridor through the SVF site is a “hydraulic floodway” or flow path along its length but conditions of velocity and depth fall into the “low hazard” category everywhere in the low-lying areas except for the following areas categorised as “high hazard”:

- the channel proper of Duchess Gully including the section flowing through the south-west corner of the site. Depths may exceed two metres and velocities may exceed 1.0 metres/sec in the “lower” reaches of Duchess Gully;
- the water bodies of the existing lagoon and the constructed wetland on the SVF site where depths exceed two metres;
- at the control structures on the existing lagoon and the constructed wetland on the SVF site and immediately downstream of these structures;
- at the overflow sections of the embankments surrounding the existing lagoon and the constructed wetland on the SVF site.

“High hazard” areas may need to be suitably signed to alert pedestrian and cycling traffic. Public risk issues within the Open Space Corridor are discussed further elsewhere.

Flow paths within the residential areas are “low hazard hydraulic floodways”.

There are no areas of “flood storage” or “flood fringe” areas in the proposed development site.

There are no levees in the proposed development since all residential areas are reclaimed to heights above the designated inundation levels.

There are no island areas within the proposed residential development areas.

Inundation risk within the development site is not likely to be increased with further future development in external catchment areas west of Ocean Drive because it is feasible to apply a development condition to these areas requiring that peak storm runoff rates are not increased by development. This condition is incorporated in Council’s flood policies.

There is no continuing flood/inundation risk under the proposed development because all residential areas are reclaimed to heights above the designated levels.

The estimated 9 hour duration PMP rainfall intensity was 100 mm/hour and the estimated peak flow rate for the PMF at the outlet of Duchess Gully was 208 m³/sec. At this flow rate water levels are governed by the hydraulic capacity of the embankments surrounding the existing lagoon and the constructed wetland on the adjoining SVF property. The resulting maximum inundation levels are shown in Table 11.

Table 11: PMF Maximum Water Levels

Location	Peak PMF Flood Level mAHD
Existing Lagoon	5.5
Constructed Wetland	4.8

The water level shown for the “Constructed Wetland” location will apply to the south-west corner of the Milland/Seawide development site.

The proposed development on the Milland/Seaside site will still be free of inundation at these water levels and access paths to higher ground will still be available.

Contamination

Refer commentary under SEPP 55 – Remediation of Land.

Acid Sulphate Soils

Council's Acid Sulfate Soils (ASS) mapping has identified Class 4 and Class 5 land along the southern boundary of Lot A.

The incidence of ASS and the suitability of the onsite soils in general to support the proposed urban uses were investigated by Jelliffe Environmental Pty Ltd in their [Stormwater Quality Management Report](#) of June, 2002.

This report notes the following in relation to ASS:

“The potential for acid sulphate soil has been identified as either ‘No Known Occurrence’ or ‘Low Probability’ in the DLWC Acid Sulphate Soils maps. In summary acid sulphate potential is limited to soils towards the south western end of the site below 5m AHD which are identified as having a Low Probability. In order to expose the acid sulphate soil to the atmosphere groundwater levels would need to fall below the existing dry season base level. At the base level the hydraulic gradient would be flat. At that level natural losses from the system would be limited to evapotranspiration.

Exposure of acid sulphate soils could therefore be expected as a natural course of events during periods of prolonged drought. However any significant reduction in recharge could reduce the length of time required for groundwater to reach the base level during drought, and for evapotranspiration to expose the acid sulphate soils. It is therefore recommended that all opportunities for maximising infiltration within the study area are capitalised on. The most important measure to avoid drawing down the water table in areas with acid sulphate soils is to control the use of spear point bores in this area.”

The Jelliffe report concludes that the potential presence of acid sulphate soils below the water table in areas to the south west of the site imposes the low risk of acid sulphate release if the water table is significantly lowered. It is concluded that the development proposed will not have the potential to significantly lower the water table in these areas provided spear point extraction is controlled.

Geotechnical

Geotechnical assessments in relation to the suitability of the site for urban development have been ongoing since 2001. A preliminary geotechnical assessment has been undertaken by Martens & Associates Consulting Engineers, July 2010

The Assessment has been conducted in accordance with AS 1796 (1993) and AS 2870 (1996). The assessment divides the site into four zones of risk, with a summary of the slope instability risk, based on Australian Geomechanics (2007) guidelines, shown in the following table.

Table 12: Summary of slope instability risk assessment based on Australian Geomechanics (2007) guidelines.

Zone	Risk type	Likelihood	Consequence to Property	Risk Level adopted for Property
A	Risk 1: Soil creep	Unlikely	Insignificant	Very Low
	Risk 2: Land slide	Rare	Minor	Very Low
B	Risk 1: Soil creep	Almost Certain	Insignificant	Low
	Risk 2: Land slide	Unlikely	Minor	Low
C	Risk 1: Soil creep	Unlikely	Insignificant	Very Low
	Risk 2: Land slide	Rare	Minor	Very Low
D	Risk 1: Soil creep	Unlikely	Insignificant	Very Low
	Risk 2: Land slide	Rare	Minor	Very Low

This assessment found that the proposed development is considered to constitute a very low to low risk to property resulting from geotechnical hazards provided recommendations of this report are implemented.

The recommendations refer to the following;

- Earthworks
- Footings and Foundations
- Groundwater

The following further recommendations are suggested at Project Application (or Development Application) stage:

- Boreholes to allow for the characterisation of underlying geology and determination of bed-rock depths;
- Penetration testings such as Standard Penetration Test (SPT), Dynamic Cone Penetration Test (DCP) and/or Cone Penetration Tests (CPT) to determine strength of sub-surface materials for future footing/ foundation design;
- Californian bearing ratio (CBR) lab testings to determine strength of sub-grade material for pavement design;
- Shrink/Swell and Atterberg Limit lab testings to determine soil reactivity for foundation classification; and
- Settlement analysis to determine future ground settlements beneath engineered structures (buildings, roads and services).

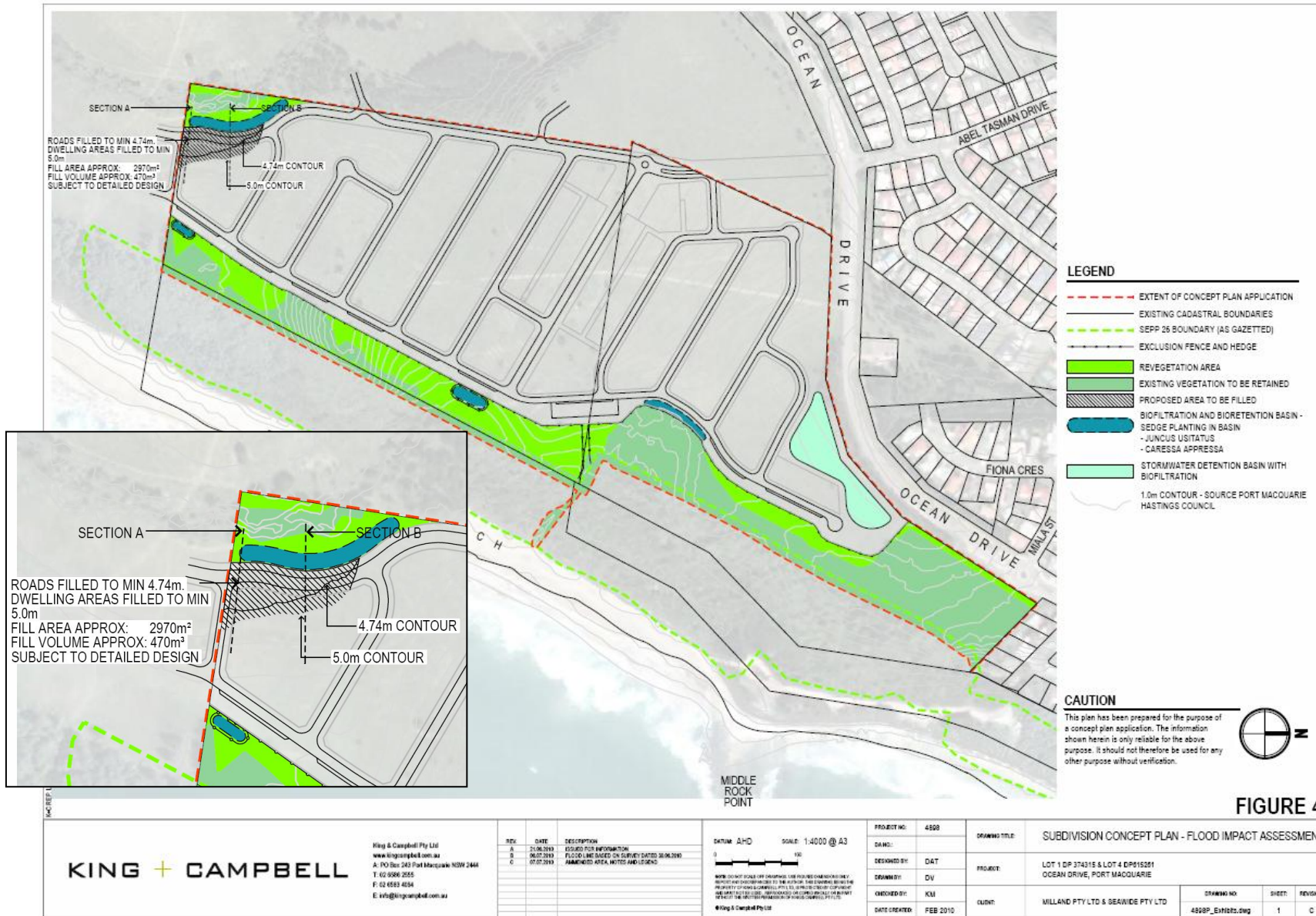


Figure 27: Subdivision Concept Plan - Flood Impact Assessment

How has the planning proposal adequately addressed any social and economic effects?

Refer Section A - Is there a net community benefit?

Section D - State and Commonwealth interests.

Is there adequate public infrastructure for the planning proposal?

Port Macquarie-Hastings Council is the authority response for the provision of potable water supply services to the proposed development site. In January 2010 the Council received funding for \$7,959,000 to be spend on potable water supply infrastructure for Area 14. The State Government injection into the area is in the form of an interest free loan and is part of the Government’s Local Infrastructure Fund which aims to assist high growth Council areas.

The existing system has approximately 400ET capacity in the vicinity of the site and any development undertaken prior to the completion of the long term supply works can take up this capacity.

The figure below shows the long term supply works that will be completed by the end of June 2011. These works along with future additional development funded and Council funded water supply infrastructure will cater for all of the future development within Area 14 in terms of potable water supply.

In 2003 Council adopted the “*Lake Cathie / Bonny Hills Moratorium on New Residential Development*” Policy that prevented new development from accessing the limited sewerage treatment credits until a decision was made to upgrade the Bonny Hill Sewerage Treatment Plant.

At its meeting on 26 May 2010 Council resolved to remove the moratorium because the augmentation of the STP was completed.

The STP can now service the ultimate population expected to live in Lake Cathie / Bonny Hills in the future.

An indicative [sewer strategy](#) has been provided in the proponents submission.

Council is in the final stages of connecting the Bonny Hills STP to the reclaimed effluent mains system. This will allow Council to move towards the long term reclaimed system for the Hastings and

provide Area 14 with the mains infrastructure for reclaimed waste which forms a key competent of the IWCM policy for the area.

The remaining key utility items such as electricity and telecommunications are available to the site. The details will be considered during any development application (project application for the site).

Gas is not, and will not be made available to the site.

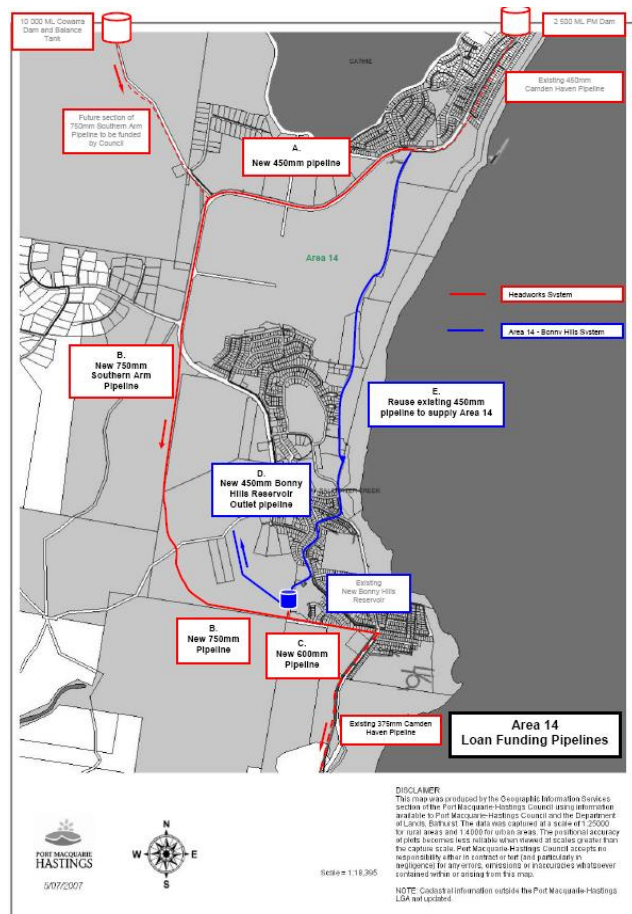


Figure 28: Area 14 - Water Supply Strategy.

What are the views of State and Commonwealth public authorities consulted in accordance with the gateway determination?

The following provides a summary of the external agencies that have been consulted as part of the Part 3A Concept and Project Application and the key issues they identified. Council has also been consulted during the development of the applications.

It is expected that additional consultation will be required as part of the Gateway Determination.

Agency	Key Issues
Department of Natural Resources (12 April, 2007)	<p>Acknowledges that the key issues in relation to the Stage 1 Project Application have already been identified, including weed removal, revegetation and fencing works on the western side of the rainforest.</p> <p>The only issue left to explore is the number of access points to the beach. The residential layout may result in additional uncontrolled informal access through rainforest.</p> <p>Emergency vehicle access to beach should also be considered</p>
Department of Lands (13 April, 2007)	<p>Need to identify location and status of any Crown Land.</p> <p>Need to identify impacts on current uses, future uses, management and amenity of crown land.</p> <p>The two existing tracks through to Rainbow Beach need to be formalised. Additional tracks would require strong justification. Prior approval of the Department of Lands is required for any works within Crown Land.</p> <p>Any works on the existing pedestrian track must not be carried out without the issue of a license from the DOL prior to commencement of works.</p> <p>Alternatives to the discharge of stormwater onto Crown land needs to be considered, including:</p> <ul style="list-style-type: none"> a. On-site pollutant retention and removal; and b. Infiltration and sub-surface discharge. <p>Stormwater management should include an assessment of the potential impacts on the rainforest.</p>
Department of Environment and Conservation (10 April 2007)	<p>Potential impacts on threatened species, flora, fauna, EEC's and their habitats.</p> <p>Potential impacts on Aboriginal Cultural Heritage.</p> <p>Potential Greenhouse Gas Emissions.</p> <p>Consultation with sewage authority required to determine if the Lake Cathie Bonny Hills Sewage Treatment System has sufficient capacity.</p>
NSW Department of Primary Industries (3 April, 2007)	<p>Stormwater Management</p> <ul style="list-style-type: none"> • Particularly the ability of Duchess Creek to accommodate the nutrient/pollutant load that will enter the system. The landowner needs to demonstrate that the development will ensure that there is not net increase in nutrient loads entering the waterways. • Details of the stormwater treatment system required, including monitoring and maintenance. <p>Cumulative Impacts of development in the Duchess Creek precinct. Developers within the Duchess Creek catchment and Council should work together to develop a management and rehabilitation plan prior to release of lots.</p> <p>Sea Level Rise/Climate Change to be considered.</p>

Part 4 – Community Consultation

The proposal is not considered to be LOW IMPACT and there an exhibition period of 28 days is considered appropriate.

Consultation in accordance with the Council's Public Consultation Policy is proposed for the site. The proposed consultation strategy for this proposal will be:

- Exhibition in a locally circulating newspaper.
- Notification of those landowners adjoining the site.

The proposal will be subject to public exhibition requirements under Part 3A for Concept and Project Applications.

Contact Details:

Rob Corken
Strategic Planner
Port Macquarie-Hastings Council
PO Box 84
PORT MACQUARIE NSW 2444

robert.corken@pmhc.nsw.gov.au

02 65818632

Attachments:

1. Draft Port Macquarie-Hastings Local Environmental Plan 2010.
2. Draft Local Environmental Plan maps.
3. Area 14 Master Plan
4. Flora and Fauna Survey, Peter Parker Environmental Consultants, July 2010
5. Parker correspondence, 6 March 2006
6. Brennan correspondence, 21 March 2006
7. Parker correspondence, 20 June 2007
8. Ecological Assessment, Biolink, June 2007
9. Flora and Fauna Report, Peter Parker Environmental Consultants Pty Ltd and Dr Peter Brennan, May 2002
10. Area 14 Stage 1B Groundwater Study, Amendment No.1, Martens & Associates, July 2010
11. Area 14 Stage 1B Groundwater Study, Martens & Associates, July 2007
12. Stormwater Quality Management Report, Jelliffe Environmental Pty Ltd, June 2002
13. Cultural Heritage Assessment, Jacqueline Collins (Consultant Archaeologist), February 2003
14. Correspondence from NSW DEC, October 2008
15. Correspondence from Office of the Registrar, Aboriginal Land Rights Act 1983, June 2009
16. Correspondence to Aboriginal stakeholders, June 2008
17. Correspondence to Mr John Heath of 6 August 2009
18. Public Notices (Port Macquarie News, Port Express, Camden Haven Courier, Mid Coast Observer and Hastings Gazette)
19. Traffic Noise Impact Assessment, March 2010, Heggies Pty Ltd
20. Coastal Hazard Study, March 2010, SMEC
21. Traffic Assessment - Area 14 Traffic Impact Study, RoadNet Pty Ltd in association with Bitzios Consulting, June 2009
22. Bushfire Protection Assessment, Australian Bushfire Protection Planners, March 2010
23. Flood Assessment – Milland Property, Cardno (Qld) Pty Ltd, July 2010
24. Coordination Plan for Coastal Walkway and Cycle Trails (Luke & Co)
25. Correspondence from PMHC, 7 July, 2010
26. Area 14 Loan Funding Pipelines
27. Council Report, 26 May, 2010
28. Sewer Strategy Plan
29. Correspondence from PMHC, 19 July, 2010
30. Preliminary Site Investigation, June 2010, King + Campbell
31. Preliminary Geotechnical Assessment, Martens & Associates, July 2010
32. Heads of Agreement for draft VPA with PMHC
33. Koala Plan of Management – Area 14
34. Memorandum of Understanding
35. Site Analysis and Development Response Plan
36. Revegetation Management Plan
37. Music Layout and Drains Model