

PROPOSED DEVELOPMENT



4 Proposed Development

As noted, the Concept Plan application seeks consent for:

- The delineation of the limits of the residential subdivision;
- The location of the three adopted intersections with Ocean Drive;
- The location of an additional intersection with Ocean Drive currently under investigation by Council;
- The delineation of the future school sites;
- The delineation of the Greater Lake Cathie/Bonny Hills Village Centre;
- The delineation of the eco-tourist development site; and
- The delineation of the Open Space, Drainage and Wildlife Habitat Corridor.

All other details will be the subject of future applications.

A Project Application for the open space / drainage / habitat corridor, with associated constructed wetland excavation and filling areas, is currently being prepared and will be lodged shortly following the lodgement of this Concept Plan report.

Whilst the Concept Plan and Project Application are separate applications under the provisions of Part 3A, the various consultant's reports undertaken overlap to such an extent that the majority of specialist reports relate to the Director General's Requirements listed for the Concept Plan, as well as the Project Application.

The Concept Plan for which approval is sought is as shown in Figure 1. A more detailed plan of the development areas is shown in Figure

12. It should be noted that the internal subdivision layout shown is conceptual only, and will be subject to future applications.

The delineation of landuses shown in Figure 1, and the discussion of these various landuses in this Section of the Report, addresses DGR 1.1, that is:

“Provide a structure plan for the site that identifies the location of proposed landuses, densities, road and open space networks, town / neighbourhood centres, urban design principles, schools, playing fields, constructed wetland and tourist site.”

4.1 Residential Areas

The Area 14 Structure Plan sets out a Vision for the Built Form for the Greater Lake Cathie Bonny Hills Village, as follows:

“The built form of the Greater Lake Cathie Bonny Hills village will have a distinctive character. Residential densities will vary to encourage a diversity of dwelling types. Medium density housing will be provided. Residential land will incorporate opportunities for home based employment.”

The Structure Plan seeks the achievement of dwelling densities having higher densities adjacent to and within 400 metres of the Village Centre main street with lower densities further away from the Village Centre. Council has been provided with various development scenarios demonstrating the likely densities to be achieved in the urban areas of the subject land. Within the subject land area, the densities sought in the Structure Plan will yield up to 1,100 dwellings.

The residential areas shown in the Area 14 Structure Plan, as compared to the residential areas shown in the Concept Plan are as setout in the table below.

	Structure Plan Area (hectares)	Concept Plan Area (hectares)
Standard Residential Areas (15 dwellings per hectare)	51.24	56.15
Medium Density Residential (25 dwellings per hectare)	13.61	11.65

The Structure Plan sets a target of 15 dwellings per hectare in the standard residential area, and a target of 25 dwellings per hectare within the medium density area (refer to Figure 37 for the location of the medium density residential area). Based on these targets, the following yields would be achieved.

	Area 14 Structure Plan (total dwellings)	Concept Plan (total dwellings)
Standard Residential (15 dwgs / hectare)	769	842
Medium Residential (25 dwgs/ hectare)	340	291
Total Dwelling Yield	1109	1133

Therefore, it may be seen that the Concept Plan is generally consistent with the provisions of the Structure Plan and will achieve an approximate equal total dwelling yield.

This Concept Plan seeks the delineation of the residential subdivision landuse area, including the three major Ocean Drive intersections, and a fourth intersection location being investigated by Council. The details of secondary roads and streets, urban parks and lot layout will be contained in future project or development applications. It is noted that the Minister is requested herein to delegate the assessment and approval of future project or development application(s) for the residential and urban development on the subject land, to Port Macquarie – Hastings Council.

4.2 Greater Lake Cathie Bonny Hills Village Centre

The Area 14 Structure Plan (the “Structure Plan”) identifies a ‘major village’ on the subject land. This village is identified in the Structure Plan as “The Greater Lake Cathie Bonny Hills Village Centre”, which states it *“will be the major village in the growing township and will contain all the higher order needs for this community of 10,000. The village design will take advantage of topographic and landscape features responding to economic, social and spiritual needs of the community. The village will have a centre focused on a main street and other high quality streets and public spaces.”*

It is envisaged that the Village Centre will provide an activity node for the existing villages, particularly with the inclusion of Civic and Community facilities such as the Community / Cultural Branch Library (1,200m²), Multi – purpose Community Centre (1,000m²), Child Care Centre (30 – 50 places) and Community Health Centre as detailed in the Structure Plan. Public Spaces such as a Village Park may also be located within this area.

Council’s adopted Community, Cultural and Emergency Services Development Contribution Plan lists the following details for the Village Centre:

1. Lake Cathie/Bonny Hills (Area 14) Branch Library & Council Administration: Suggested year of commencement 2009 and cost of \$1.4M. Size to be approximately 600m² and to provide for Council administration facilities.
2. Lake Cathie/Bonny Hills (Area 14) Community Centre: Suggested year of commencement 2009 and cost of \$2.7M. Size to be approximately 1,200m².

The Structure Plan nominates the total retail floor space within the entire Area 14 Structure Plan area to be around 10,000m². This is the total retail area for the existing Lake Cathie and Bonny Hills shopping centres, plus the additional area within the subject land. Thus, only a portion of the 10,000m² area would be contained within the Village Centre shown in the Concept Plan.

In order to determine the likely development scenario for the Village Centre, Design Collaborative Pty Ltd were commissioned to undertake both an Assessment of Potential for the site, as well as an analysis of what the centre may actually contain so as to identify the Physical Framework. Both reports by Design Collaborative Pty Ltd are included in the Appendices section of this report.

The Assessment of Potential report considered Council's established criteria for the Village Centre, noting that it would be located within an area with a maximum population of around 10,000 achieved by 2021. The assessment also notes the demographics of the locality, such that some 50% of existing households contain adults only, whilst the remaining two thirds of the population are in households with young children. Both household types have vastly different patterns of retail expenditure.

The assessment notes that the proximity of the subject land to the ocean, may result in rising land prices as such a commodity becomes rarer, and retirees and sea changers seek homes closer to the ocean. This would result in household sizes becoming smaller, and median incomes and ages would rise. This may result in a smaller population being achieved, and would also alter the demand for facilities and services within the Village Centre.

The assessment also makes reference to the approval of a Woolworths supermarket in Lake Cathie, and also an IGA

supermarket in Bonny Hills. These developments reduce the demand for retail outlets in the Village Centre. The assessment notes *“if there is further development of retail or commercial premises elsewhere in the district before the village centre is established, its development would face even greater difficulties”*.

The Assessment notes that the Village Centre would require some protection and encouragement in order to achieve the envisaged level of services and facilities to become the principal business centre for 10,000 people by 2021. Critical to the viability of the Village Centre is Council's establishment of a branch library, administration building and community centre, within the Village Centre.

Despite this uncertainty regarding the viability of a Village Centre, in support of the Area 14 Structure Plan, and thus Council's strategic plan for the locality, the assessment report adopts a figure of approximately 15,000 square metres of built space, and parking to accommodate some 530 cars, as a possible 2021 development scenario. The Stage 2 report by Design Collaborative sets out a likely viable physical framework for the ultimate design of the Village Centre. A plan showing a possible layout is presented in Figure 13.

As the current planning controls only provide for a 5,000 square metre neighbourhood centre, any development beyond that retail floor area would require rezoning. The Concept Plan Village Centre will provide for a mix of uses, including civic buildings, and possible child care centre. Thus, this Concept Plan application does not seek approval for a centre with a retail floor area greater than 5,000m², but rather a mixed use centre. Therefore, sufficient land area has been identified for the Village Centre to cater for possible maximum growth to the year 2021. This enables planning for infrastructure such as road networks, cycle and pedestrian linkages, as well as the provision of water and sewer services, to be put in place. This ensures a higher standard of landuse integration.

The detailed design of the centre would be subject to a future project or development application and it is noted that the Minister is herein requested to delegate the assessment and approval of such an application to Port Macquarie – Hastings Council.

4.3 School Sites

The Concept Plan shows an area for schools in the northwestern and southwestern portion of the subject land.

The Area 14 Structure Plan notes: *“The education department owns two sites within Lake Cathie and Bonny Hills. Both these sites are relatively small and highly vegetated. They are at the extreme ends of the Master Plan area and will not be centrally located to the majority of the future population. It is recommended that a large site with good vehicular access, collocated to open space, sport and recreation facilities within close proximity to the residential areas for future development. Should a second school site be justified due to demands from increasing population then the Lake Cathie Site is preferred”.*

Port Macquarie – Hastings Council consulted with the Department of Education during the preparation of the Structure Plan. Their response is included in the Appendices section of this report.

The Structure Plan notes that a government primary school will not be required until a threshold catchment population of some 6,000 – 7,000 is reached. (This threshold was confirmed in the consultation response from the Department of Education and Training dated December 2008 – refer to Appendices section of this report).

The proposed school sites are well placed to service the growing needs of the area, as well as utilise the proposed active and passive open space and environmentally enhanced areas to be developed on the subject land.

Schools are permitted with consent within the current residential zoning of the land. The approval of the Concept Plan would identify these areas for school sites, and no rezoning would be required. The transport network developed by Council in the adopted Structure Plan and shown in this Concept Plan has been designed to cater for the future school developments. The Concept Plan approval would then allow a future project or development application to be lodged, which would provide the details of the schools, including buildings and layouts.

It is noted that the Minister is requested herein to delegate the assessment and approval of such future application(s) to Port Macquarie – Hastings Council

4.4 Eco-Tourist Site

The eastern portion of the subject land (primarily Lot 5 DP 25886) is shown in the Concept Plan as an Eco-Tourist Site. This site adjoins the beach access to Rainbow Beach. It is proposed to formalise this access point to provide public access to the beach including provision for public parking facilities. Formalising the existing beach access would protect sensitive coastal vegetation, and in particular the Littoral Rainforest vegetation to the north of the site.

The Eco-Tourist Site is level land, located behind the foredune. Low scale eco-tourist buildings would not be visible from the public beach area. The Eco-Tourist Site is partly affected by the buffer to the adjoining sewerage treatment plant, which restricts the location of

habitable structures. This will be addressed in any development of the site.

The concept for the Eco-Tourist site took into consideration the North Coast Design Guidelines, and particularly Figure 14 taken from these guidelines:

The extract from the North Coast Design Guidelines shows buildings below the tree canopy and maintenance of existing vegetation. This is readily achievable on the Eco-Tourist site. It is proposed that the buildings will be below the treeline when viewed by pedestrians from Rainbow Beach. This means the buildings on the site will not be visible from the beach. This is considered in the Visual Analysis included in the appendices section of this report.

The existing view from the beach is shown in the photo in Figure 15, which was, taken opposite the existing beach access point. It should be noted that the powerlines and associated power poles that currently traverse the Eco-Tourist site are not visible from the beach. A survey was undertaken to determine the height at which buildings on the Eco-Tourist site would become visible to pedestrians on the beach. A building on the Eco-Tourist site would need to be in excess of 25.5 metres in height from the natural ground level at the site boundary, before the building would be visible by a pedestrian on Rainbow Beach. This is discussed in a later section of this report.

A Principles Plan was developed for the Eco-Tourist site which identified a likely development footprint, and this is shown in Figure 16.

Whilst a final design of the Eco-Tourist development has not been prepared at this time, a conceptual sketch of a possible eco-tourist development on the subject land has been produced and is shown in Figures 17 and 18. The Appendices section of this report includes a

description of the most significant design criteria identified for the future development of this site and the conceptual design shown in Figures 17 and 18 demonstrate the possible maximum footprint based on these criteria.

Thus, the Eco-Tourist Site may be seen as an opportunity to create a sensitive, low scale eco-tourist development, including formalisation of the beach access, with buildings located behind the foredune which will not be visible from the public beach area.

The development of this site as an Eco-Tourist Facility with public beach access would provide benefits to the wider community. This includes the formalisation of the beach access which minimises environmental impacts on the sensitive dunal area, but also ensures the public has access to coastal areas. It is noted there is no current public access permitted at this location. The current beach access and likely formal beach access are shown in Figure 19.

The zoning of this Eco-Tourist Site land is part 2(a1) Residential and part 1(a1) Rural under the provisions of Hastings LEP 2001. Eco-Tourist facilities of various types are permissible with consent within both zones, being tourist facilities within the residential zone, and rural tourist facilities within the rural zone. Therefore, this Concept Plan seeks the identification of the site for eco-tourist development, as is consistent with the adopted Structure Plan, with the details of the development to be contained in a future project or development application.

It is noted that the Minister is requested to delegate the assessment and approval of such an application to Port Macquarie – Hastings Council.

4.5 Open Space / Drainage / Habitat Corridor

The Structure Plan identifies a significant area within the subject land, being for Open Space / Drainage / Habitat Corridor. The corridors encompass approximately 80.9 hectares or 46% of the subject land.

These corridors of land run east – west through the central section of the property, with a further corridor running north – south. The corridors are multi-functional and integrated in their uses.

The location and the large area of these corridors will result in the land forming various focal points for the existing and future residents of Lake Cathie and Bonny Hills. The land will be designed with judicious regard to its ultimate high community and environmental value.

A Project Application for the Open Space / Drainage / Habitat Corridor is being prepared to address all aspects of the open space / drainage / habitat corridor area including the Constructed Wetland. The Project Application will be submitted to the Minister for assessment, with the Director General's Requirements having been re-issued on 31st May 2010.

The various elements of the corridor are:

- Open Space and Wildlife Corridor,
- Stormwater Treatment and Management,
- Constructed Wetland, &
- the formation of District Sporting Fields.

The corridor and associated excavation and fill areas are shown in the Figures 20 and 21.

A brief description of each element and its issues follows. The forthcoming Project Application will address each of the elements in more detail.

Open Space and Wildlife Corridor

The Area 14 Structure Plan aims to achieve the following in relation to open space areas and wildlife corridors:

“Passive recreation is accommodated within the large areas of open space, in smaller local parks, and in buffer areas adjoining sensitive ecological areas. All significant areas of native vegetation are incorporated – in their entirety - into a system of open space reserves, habitat links and/or corridors. Environmental corridors link areas of significant environmental vegetation and habitat.”

The final adopted Area 14 Structure Plan is shown in full in the Appendices section of this report, and amended by resolution of Council, to the following extent in relation to the Open Space / Drainage / Habitat corridors on the subject land:

“Widths within St Vincent’s (ie subject land) reduced.

There is to be a 10m buffer between Ocean Drive and residential development.

Clearly state that drainage corridors are to be designed and constructed to also serve as wildlife corridors.”

(Council resolution 19th July 2004)

The proposed Concept Plan is consistent with the above extracts from the adopted Structure Plan. The Concept Plan shows the east – west and north-south corridor identified in Council’s adopted Structure Plan and complies with the specified widths. Some sections of the corridor are in fact notably wider than that specified in the

Structure Plan. The open space corridor will serve, in part, as a wildlife corridor. It is noted that the linkage to land on the western side of Ocean Drive is no longer part of the Area 14 wildlife corridors, however the development of the subject land has made provision for these possible future connections with other properties, in accordance with the Structure Plan.

The Water Engineering and Environment Report prepared by Cardno, includes an Open Space Management Strategy which specifically addresses the enhancement of these corridors for fauna movement. The Cardno report notes:

“Vegetation identified as forming part of broader fauna movement corridors will be retained, rehabilitated and protected within the Open Space Corridor. The extensive rehabilitation works proposed for the Open Space Corridor will enhance the structure and function of these currently degraded communities and hence higher quality fauna movement corridors will be created.”

This commitment to creation of the wildlife corridors is demonstrated by the management of the subject land over the last three years, during which time, the landowner has engaged bush regeneration experts to commence management of the corridor areas. This includes extensive fencing to exclude stock from proposed regeneration areas, collection of endemic seeds and propagation of replanting stock, as well as removal of invasive weeds from native bush areas.

The removal of weeds, principally lantana from the koala habitat adjoining the existing sewage treatment plant would have already provided a benefit to the existing koala population. In addition, the works to date has significantly enhanced an area of wallum froglet habitat.

The bush regeneration works have included on site seed collection, growth of seedlings in the onsite nursery area, followed by planting on site within the 80.9 hectares of open space corridor. These works, including some 30,000 locally propagated plants established during 2009, are shown in the photographs within Figure 22.

Stormwater Treatment and Management

Council has adopted an Integrated Water Cycle Management Plan (IWCMP) for Area 14. The objectives of the IWCMP are:

- *To require the implementation of water sensitive urban design techniques for stormwater management.*
- *To protect receiving waters from both the hydrological and water quality impacts of stormwater runoff.*
- *To provide for “at source” and a “treatment train” approach to storm water management (quality and quantity).*
- *To ensure that development is designed to minimize the risk posed by flooding.*

Water sensitive urban design techniques and a treatment train approach to stormwater treatment will be adopted for the development. A number of stormwater treatment devices are available to achieve the objectives of the IWCMP including vegetated swales and constructed wetlands. Specific devices will be addressed in the Project Application.

The Water Engineering and Environment Report prepared by Cardno notes that the proposed Project Application development fully complies with Council’s Integrated Water Cycle Management policy for Area 14, dated 5th November 2007, by incorporating the following features and design elements:

- *Use of reclaimed water to dwellings for outdoor use, toilet flushing and laundry cold water;*
- *Irrigation of district sports fields with reclaimed water sourced from Port Macquarie – Hastings Council;*
- *Water sensitive urban design (WSUD) in residential areas by incorporating stormwater treatment using vegetated swales, bioinfiltration areas and treatment wetlands;*
- *The proposed development using end-of-pipe wetlands for stormwater treatment was adopted as the most advantageous overall because it is the only option providing the required residential areas along with satisfactory WSUD solutions whilst remaining economically feasible in terms of minimising total earthworks which avoids the necessity for imported fill;*
- *WSUD stormwater treatment options using bioinfiltration treatment are not feasible because of the increased volume of earthworks required including large volumes of imported material.*

Constructed Wetlands

The Constructed Wetlands form part of the open space / drainage / habitat corridors. The large constructed wetland will not only provide stormwater treatment and ecological benefits but also provides a source of fill material for the property. Whilst the construction of these wetlands does not form part of the Concept Plan Application, but rather are addressed in the Project Application, it is important to consider the overall benefits as set out in the Water Engineering and Environment Report prepared by Cardno. Some of the benefits identified in their report are as follows:

The constructed wetland system to be incorporated into the Open Space Corridor has been specifically designed to provide a number of ecological values and functions including:

- *Increased aquatic habitat for migratory and wader birds, amphibians (including threatened Wallum froglet which is known to occur on the site), fish and invertebrates;*
- *Effective onsite and offsite stormwater quality improvement through the retention and treatment of nutrients, organic waste and sediment;*
- *Stormwater runoff peak flow mitigation;*
- *Improved aesthetic and intrinsic values within the landscape; and*
- *Increased passive recreational opportunities (e.g. bird watching and other nature appreciation pursuits).*

In addition, detailed work regarding the functionality of the wetlands will be included in the Project Application.

Consultation with Council regarding their adopted Integrated Water Sensitive Urban Design Policy for Area 14 has been undertaken and in a letter dated 13 November 2006 the Natural Resources Manager advised:

“It is agreed that constructed wetlands are a suitable component of a ‘treatment train’ approach and the words ‘constructed wetlands’ will be incorporated into the provision that deals with treatment train approach requirements.”

Ownership and Management

The ultimate ownership and ongoing management of the open space/drainage/habitat corridor (including the Constructed Wetlands) is discussed at length in the forthcoming Project Application – the issue being one of the specific Director General's Requirements in the Project Application.

The Council has recently resolved its policy in relation to the ownership and ongoing management of open space and environmental lands within an equivalent new urban release area to the west of Port Macquarie designated as Area 13 (now officially named Thrumster). The concluded policy is that Council is best placed to own and manage these open space and environmental lands, pursuant to a Management Plan and associated Voluntary Planning Agreements which provide the basis for funding and ensuring the lands' long term sustainability.

Whilst the open space and environmental lands within Area 13 differ in their functions and characteristics to the open space/ drainage/ habitat corridor in this application, the established policy is directly applicable to the corridor herein. The specific management issues cannot be determined at the Concept Plan level, but will flow from the detailed Management Plan to be included in the forthcoming Project Application.

Council's consultation letter dated 17 December 2008 discusses, inter alia, ownership and management issues associated with the proposed environmental corridor – a copy of the letter is provided in the Appendices. Key paragraphs are:

Council is particularly interested in resolving ownership and management issues associated with the proposed

environmental corridor and other public land, including existing and proposed wetlands and Water Sensitive Urban Design facilities. Council would like to have input into the brief for the proposed study of management requirements for these areas, which should include an analysis of full life cycle costs, and may require a peer review of the report on completion.

Council would also like to commence discussions as soon as practicable to establish appropriate legal mechanisms to implement any proposed public ownership and management arrangements. Council's experience is that the establishment of Voluntary Planning Agreements can take some time, where these are proposed in conjunction with detailed planning applications.

It has been confirmed with Council and the Department that the Environmental Landuse Management Plan for the corridor is included in the forthcoming Project Application, and the establishment of the Voluntary Planning Agreement to set up the Council's ownership and management of the open space/drainage/habitat corridor will be carried out in conjunction with the Project Application.

District Sporting Fields and Facilities

The Area 14 Structure Plan notes the following: *"Local sporting facilities are at capacity and have no land available for expansion. There is both a local and regional demand for facilities for the following sports: Soccer, Rugby League, Baseball, Cricket, Tennis and Netball. Most of these facilities can be accommodated in a situation where the schools and the Council share land and sporting facilities. This land should adjoin the site for the state school and have good access from the through street system and Ocean Drive.*

Sufficient land is available to allow for off street parking, bus set-down and club / change room / toilet facilities.”

The location, size and scope of the District Sporting Fields, as shown in the Concept Plan, have been finalised in consultation with Port Macquarie-Hastings Council and are now incorporated in Council’s Open Space Management Plan as district sporting fields to service the expanding district community.

The District Sporting Fields will comprise four full size football fields, with two central cricket pitches, together with associated amenities building and parking. The Council concept for the District Sporting Fields is shown in Figure 23.

Consultation for this Concept Plan has highlighted strong demand for a short term solution to a marked shortage of sports fields within the local community. The forthcoming Project Application includes the filling and establishment of the district sporting fields within the open space corridor. It is anticipated that the District Sporting Fields will be levelled by the land owner in conjunction with the development and establishment of the open space/drainage/habitat corridor. The offsetting of the development and acquisition costs for the land taken up by the District Sporting Fields (with regard to Council’s Open Space Management Contributions Plan) will be the subject of a Voluntary Planning Agreement to be negotiated with Council.

4.6 Structure Plan of Proposed Development

As noted at the beginning of this section, DGR 1.1 required the provision of a Structure Plan for the site. This section (Section 4) includes the Concept Plan that identifies the location of the various

landuses, and notes the overall yield for the residential area, which provides an indication of densities that might be achieved.

The Concept Plan also shows the road and open space networks, as well as the location of the neighbourhood shopping centre. The urban design principles for the subject land will be those which apply at the time in Port Macquarie – Hastings Council's relevant development control plans. The schools, playing fields, constructed wetland and tourist site are all landuses which have been delineated on the Concept Plan and discussed within this section of the Report.

Therefore, in this manner, the provisions of DGR 1.1, have been addressed.

FIGURE 12

DEVELOPMENT
AREAS

CONCEPT PLAN BREAKDOWN

1. Residential Area	67.8
2. Open Space, Drainage & Wildlife Habitat	
3. Village Centre Corridor	80.9
4. Northern School Site	4.8
5. Southern School Site	5.0
6. Eco Tourist Site	9.7
7. Ocean Drive Buffer (10m wide strip)	7.6
	1.6
TOTAL	177.4ha

* Subdivision layout is conceptual only & shown for clarification

Rainbow Beach Estate
Concept Plan Application Set

Job. No. 4509.ND DWG: RM



Luke and Company Pty Ltd



SCALE:
1:8000@A3 1:4000@A1
This scaled scale of this drawing is only allowed to compare from the drawing
The scale should be verified prior to starting measurements

