

Pacific Pines Estate
Lennox Head
Part 3A Application No. MP 07_0026
Environmental Assessment Report



Pacific Pines Estate Lennox Head

Part 3A Application No. MP 07_0026 Environmental Assessment Report

Prepared for: Petrac Pty Ltd
Project Manager: Rob van Iersel
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environmental management and design

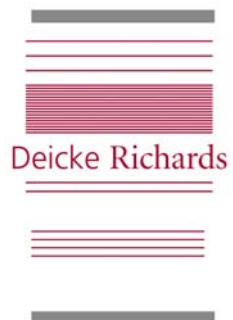


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Certification

Submission of
Environmental Assessment (EA)
under Section 75H of the *Environmental Planning and Assessment Act 1979*

EA prepared by:

Name: Rob van Iersel
Qualifications: B. Applied Science (Coastal Management)
Certified Practicing Planner
Address: GeoLINK
P.O. Box 9
Lennox Head, NSW, 2478

Concept Plan Application:

Residential subdivision to create 481 residential lots and 6 'super lots'.
Super lots to be developed in the future to provide a range of
neighbourhood commercial / community facilities; an integrated
retirement community and medium density housing

Project Application:

Stage 1 of the development, involving the creation of 58 lots, which
includes 49 conventional residential lots, 3 open space lots and 6
'super lots' The 'super lots' will be developed in the future for:

- neighbourhood retail / commercial centre;
- tavern;
- child care centre;
- community centre / hall;
- medium density housing; and
- integrated retirement community.

Proponent:

Petrac Pty Ltd
PO Box 3910
South Brisbane QLD 4101

Land to be developed:

Lot 234 DP 1104071
Montwood Drive, Lennox Head

Environmental assessment:

An Environmental Assessment is attached



Certification:

I certify that I have prepared the contents of this environmental assessment and to the best of my knowledge:

- it is in accordance with Sections 75E and 75F of the *Environmental Planning and Assessment Act 1979*; and
- it is true in all material particulars and does not, by its presentation or omission of information, materially mislead.

Signature:



Name:

Rob van Iersel

Date:

13 February 2008



Executive Summary

For more information on this project, including a wide range of reports and studies, please see <http://www.ebdlennoxhead.com.au>

Introduction

This environmental assessment report is submitted pursuant to Section 75H of the *Environmental Planning and Assessment Act 1979* to support an application for approval of a concept plan relating to the proposed residential subdivision of the Pacific Pines Estate in Lennox Head. Concurrent approval is requested for a project plan relating to stage one of that subdivision.

The Land

The site is Lot 234 DP 1104071. It has an area of 80.48 ha and has frontages to Montwood Drive, Stoneyhurst Drive and Fox Valley Way at its southern boundary and Hutley Drive and Henderson Lane to the north.

The majority of the site is zoned 2(b) Village under Ballina Local Environmental Plan 1987 (BLEP 1987), with smaller areas zoned 7(a) Environmental Protection – Wetland and 8(a) National Parks and Nature Reserves. No development is proposed within the 7(a) or 8(a) areas.



Site Locality Plan



The Site

Urban development of the site was originally approved in 1989, when the site was zoned 2(b) Village. At that time a subdivision layout for the whole of the site was adopted by Ballina Shire Council as a Development Control Plan (DCP). The first four stages of residential development were implemented in accordance with that DCP.

State Environmental Planning Policy No. 71 – Coastal Protection was gazetted in 2002, creating the need for a Master Plan approval for the remainder of the site. A Master Plan was approved by the Minister for Planning in 2006, providing a new subdivision layout for the remainder of the Pacific Pines site.

The current Part 3A application seeks to update that Master Plan.

The Development

Concept Approval

The proposed Concept Plan seeks the Minister's approval for a high quality development to complete the Pacific Pines Estate at Lennox Head. The Plan is shown in the attached drawing set, as **Illustration C1**.

The key elements of proposal include:

- The creation of a 'super lot' to be developed in the future for the provision of a local neighbourhood centre. This centre will include a local-scale shopping centre and associated retail, small businesses, a tavern, shop-top housing, a medical centre, and recreational, leisure and community facilities all clustered around a vibrant public domain that includes the existing pond as its main visual feature.

The building height within the neighbourhood centre will range from 3 storeys, located at the north-east corner of the intersection of Hutley Drive and Main Street, to 2 storeys within the remainder of the centre.

Approximately 2,500-3,000 m² of retail floor space is envisaged, with approximately 500-800 m² of commercial floor space and approximately 22 'shop-top' dwellings. Approximately 280 parking spaces will be provided on-site, with further on-street spaces available.

This Part 3A application does not seek approval for the development within the 'super lot'; that will be sought by way of a separate development application once the lot has been created.



- The creation of a 'super lot', located immediately to the east of the existing pond, to be developed in the future for the provision of an integrated retirement community. This will include a variety of retirement options, including assisted and independent living. It will also include on-site leisure, open space and recreational facilities.

The community will include approximately:

- 40 independent living units;

- 100 assisted living units; and
- 172 retirement lots.

The assisted living and independent living units will be provided within two multi-use buildings with a maximum height of 3 storeys, which will include community recreational uses at ground floor level, with two residential storeys above.

Again, the Part 3A application does not seek approval for the retirement development within this 'super lot'. That will be pursued by way of separate applications once the lot is created.



- Residential areas to be subdivided into approximately 481 lots of varying sizes, providing for a variety of housing densities and types and catering for a wide variety of needs within the community. The lots are provided in 'precincts' that are likely to include:
 - 29 large lots on steeper parts of the site (> 1,200 m²);
 - 123 'traditional' lots of around 800 m²;
 - 186 'traditional' lots with areas between 600 m² and 800 m²;
 - 8 duplex lots (900 m²);
 - 22 'small affordable' lots (450 m² – 600 m²);
 - 87 rear lane lots (450 m² to 600 m²); and
 - 26 'park court lots' (450 m² to 600 m²).

(Note: lot numbers and areas are approximate – subject to future applications and detailed design)

70 per cent of the residential lots will be located within the 400 m walkable catchment of the neighbourhood centre;

- Medium density housing precincts located in close proximity to facilities and services. A medium density 'super lot' of 2,380 m² is proposed, located close to the neighbourhood centre. A two storey development is envisaged and, although no proposal has been designed for this lot, a density of approximately 1 dwelling unit per 250 m² of the site might be expected (density control in existing Ballina DCP). This could result in approximately 10 dwellings on this super lot;
- Parks, footpath / cycleways and protected conservation areas all provided to a high quality standard for use of existing and future residents in the locality. Open space areas will provide for local amenity and for conservation of important ecological areas. Overall, the Concept Plan provides for 18.4 ha of open space (not including the adjacent sporting fields). This represents approximately 23 per cent of the total site area;

- A long term management strategy to protect and enhance threatened species habitat on-site and in the local area, particularly concentrating on habitat for Hairy Joint Grass (*Arthraxon hispidus*); and
- A highly connected and permeable street network, accessed by a number of existing streets, including Hutley Drive, Montwood Drive, Stoneyhurst Drive and the future connection to Henderson Farm, located to the west.



Overall, the proposal will provide for a gross dwelling density of around 10 dwellings per hectare. By way of comparison, the existing stages of Pacific Pines Estate have a gross density of around 8.6 dwellings per hectare.

Ultimate Yield

Based on the lot yields outlined above, it is anticipated that the Concept Plan will provide around 823 residential dwellings, which includes approximately 312 retirement dwellings, with a total ultimate population of approximately 1,737 people. The occupancy rates used for this estimate have been calculated from the 2006 Census data for Ballina.

<i>Lot Type</i>	<i>Anticipated dwellings</i>	<i>Occupancy Rate</i>	<i>Projected Population</i>
Large lots (>1,200m ²)	29	2.9	84
Traditional lots (>800m ²)	123	2.9	356
Traditional lots (600-800m ²)	186	2.9	538
Duplex Lots (900m ²) (2 dwellings per lot)	16	2.3	37
Small Affordable Lots (450-600m ²)	22	2.3	51
Rear Lane Lots*	87	2.1	183
Park Court Lots	26	2.3	61
Shop Top Housing	22	2.1	46
Independent Living Units	40	1.3	52
Assisted Living Units	100	1.05	105

<i>Lot Type</i>	<i>Anticipated dwellings</i>	<i>Occupancy Rate</i>	<i>Projected Population</i>
Detached Retirement Lots	152	1.3	198
Attached Retirement Lots	20	1.3	26
Total	823		1,737

**Note: includes a theoretical yield of 10 dwellings on Super Lot #6 (medium density site)*

The table below compares this anticipated yield with the concepts previously approved for the site (average dwelling occupancy of 2.5 persons per dwelling assumed for all).

	<i>1989 DCP</i>	<i>2006 SEPP71 Master Plan</i>	<i>Current Proposal</i>
Dwellings	870 total, including 330 medium density units	600 total, including 177 medium density units	823 total
Population	2,306	1,590	1,737
Neighbourhood Centre Area	4 ha	3.7 ha	3 ha
Open Space	Small parks plus sports fields	8.7 ha, plus sports fields	18.4 ha, plus sports fields

Density

Overall, the proposed Concept Plan has a lesser density than previous concepts approved for the site. The original concept, adopted by Council as a DCP, involved 870 lots, with an overall population of some 2,175 people. The current proposal provides far fewer lots (481 in residential area and around 170 retirement lots), with an ultimate population of around 1,737 people.

However, whereas the previous concepts provided a relatively uniform density across the whole of the site, the current proposal includes areas within the site, the retirement component and around the main street, with higher densities, with densities decreasing away from the village centre. This is consistent with contemporary urban design principles and provides for compact and walkable communities.

Incorporating components of a slightly higher density also allow the provision of greater open space, which significantly adds to local residential amenity. The original DCP concept included only small local parks as open space (apart from the sporting fields). The 2006 SEPP 71 Master Plan included 8.7 ha of open space (excluding sports fields). The current concept plan includes 18.4 ha excluding the sports fields. This can only be achieved by increasing densities in the retirement and village centre areas.

Project Approval

Project Approval is concurrently sought for stage one of the project. This first stage is shown in **Illustration P1** and involves the creation of a total of 58 lots. These include 6 'super lots', which will be later developed for a variety of uses; 49 conventional residential allotments, ranging in size from 510-1,010 m² (averaging approximately 720 m²); and 3 open space lots. A subdivision plan showing these lots is provided in **Illustration P2**.

Construction of Stage 1 will be undertaken in two 'sub-stages'. Sub-stage 1A will involve the creation and construction of the 49 conventional residential lots, with sub-stage 2 involving the remainder of the stage. The residential lots can be constructed using the existing road network and do not require the extension of Hutley Drive. Services can also be provided from within the existing residential area of Pacific Pines.

The lots will be serviced by a full range of water, sewer, electricity and telecommunication services. Stage one will also include the construction of a number of roads, parks and pedestrian links. A Landscape Plan and associated details for this first stage is provided in **Illustration P3**.

As indicated above, approval will be pursued separately for the future development of the 'super lots'. The intended use of these lots is:

- Super lot 1 – neighbourhood shopping centre;
- Super lot 2 – tavern;
- Super lot 3 – child care;
- Super lot 4 – community centre / hall;
- Super lot 5 – retirement community; and
- Super lot 6 – medium density housing.

Environmental Assessment

The Director-General's Environmental Assessment Requirements (DGR's) for the both the Concept and Project Applications were provided by the Department of Planning in its letter dated 18 May 2007. This Environmental Assessment Report addresses all of those requirements. It also provides the plans / illustrations and specialist reports and documents that were requested by the Director General.

A full copy of the DGR's is provided in **Appendix A**. A summary of how this Environmental Assessment addresses each of the DGR's is provided in **Section 7**.

In summary, the key issues relate to:

- ecology, particularly in relation to threatened species and the nearby Ballina Nature Reserve, which is protected under *State Environmental Planning Policy No. 14 – Coastal Wetlands*;
- consistency with local and regional strategic planning;
- urban design, including design controls that would allow three-storey buildings within the neighbourhood centre and retirement community;
- traffic and access;
- infrastructure provision;
- management and mitigation of environmental hazards;
- watercycle management; and
- heritage and archaeology.

A number of specialist reports have been commissioned to inform the design of the Concept Plan and to assist in the environmental assessment. These include:

- engineering and infrastructure – Ardill Payne and Partners;
- urban design and visual assessment – Deicke Richards Architects;
- ecology and bushfire assessment – GeoLINK;
- mosquito management – Mosquito Consulting Services;
- heritage – Everick Heritage Consultants; and
- noise – Carter Rytenskild Group.

Introduction

1.1 Background

GeoLINK has been engaged by Petrac Pty Ltd to act as Planning Consultants in relation to the residential development of the Pacific Pines Estate, located at Lennox Head in northern NSW. GeoLINK has worked closely with the Project Team outlined in **Section 1.2** in the preparation of this report.

This Part 3A application seeks approval for a Concept Plan, relating to the proposed residential subdivision of Lot 234 DP 1104071 to provide for approximately 480 residential lots, together with a number of 'super lots' to be developed in the future for a Neighbourhood Centre, an Integrated Retirement Community and a small medium density housing project.

The application also seeks concurrent Project Approval for stage one of the Concept Plan, which includes the creation of 49 residential allotments, 6 'super lots' and 3 public open space lots. It also involves road and pedestrian network that will create access to the allotments, water, sewer, telecommunications and electricity services.

Details with respect to both the Concept Plan and the stage one Project Application are outlined in **Section 4** of this report.

A draft Master Plan for the residential subdivision of this land was lodged with the Department of Planning in 2003, pursuant to the provisions of *State Environmental Planning Policy No. 71 – Coastal Protection* (SEPP 71) as they existed at that time. After a comprehensive assessment process, the Minister for Planning adopted SEPP No 71 Master Plan No. 27-12-2003 on 23 March 2006 (Master Plan layout shown in **Illustration 6.1**).

The Master Plan was approved over Lot 217 DP 1017615. That land was subsequently subdivided to create two lots, Lot 234 (subject to this application) and a smaller Lot 233, which has been retained by the original land owners for future development.

Lot 234 was purchased by Petrac in early 2007. Petrac sought to improve the urban design and sustainability outcomes associated with the approved SEPP 71 Master Plan and, in February 2007, requested that the Director-General of the Department of Planning issue Environmental Assessment Requirements for an updated residential development proposal for the land.

The Minister for Planning authorised a Concept Plan to be lodged pursuant to Section 75M of the *Environmental Planning and Assessment Act 1979* on 3 May 2007. Subsequently, the Director General's Environmental Assessment Requirements (DGR's) for both the Concept Plan and the Project Application were issued on 18 May 2007 (refer to **Appendix A**).

1.2 Project Team

The Pacific Pines Concept Plan has been prepared on behalf of Petrac Pty Ltd by the following team:

Project Management:	<i>Petrac</i>	Luke Whistler
Urban Design:	<i>Deicke Richards</i>	Cameron Davies Cassie Doyle Peter Richards
	<i>Annand Alcock Urban Design</i>	Clive Alcock
Engineering:	<i>Ardill Payne and Partners</i>	Bill Payne Tony Cromack
Planning:	<i>GeoLINK</i>	Rob van Iersel Simon Waterworth
Bushfire:	<i>GeoLINK</i>	Veronica Monkley
Mosquito Management:	<i>Mosquito Consulting Services</i>	Darryl McGinn
Ecology:	<i>GeoLINK</i>	Veronica Monkley
	<i>Cardno</i>	Monica Campbell
Landscape Architecture:	<i>Deicke Richards</i>	Arno King
Demographic:	<i>Petrac</i>	Jeremy McKinnon
Archaeology:	<i>Everick Heritage Consultants</i>	Dr Richard Robins Adrian Piper
Enquiry By Design:	<i>Ecologically Sustainable Design</i>	Chip Kaufman Wendy Morris
	<i>Petrac</i>	Stephen Bowers Luke Whistler

1.3 Further Information

Should any further information be required to clarify any aspects of this report, please contact **Rob van Iersel** of GeoLINK on 6687 7666.

Local Context and Site Analysis

2.1 The Site

The subject land is described in real property terms as Lot 234 DP 1104071. It has an area of 80.48 ha and is irregular in shape. As shown in **Illustration 2.1**, the site has frontages to Montwood Drive, Stoneyhurst Drive and Fox Valley Way at its southern boundary and Hutley Drive and Henderson Lane to the north. A public road reserve, dedicated as a future extension to Hutley Drive by the previous land owners (at the request of Ballina Shire Council), is located within the western part of the site.

A number of water supply, sewerage and drainage easements affect the south-eastern and south-western edges of the site, as shown in **Illustration 2.1**.

2.2 Context

Illustration 2.2 shows the context of the site. It is located on the western side of North Creek Road, approximately 2 km from the Lennox Head Village.

The previous stages of the Pacific Pines Estate form the southern edge to the site. The Lennox Meadows Estate, a residential subdivision approved and constructed in the mid-1990s, adjoins the site to the north. There is another urban development site, 'Elevation', located further south again (first stage of subdivision recently constructed), and a number of other potential future development sites in the vicinity.

Of particular note, land adjoining to west, known as Henderson Farm, is the subject of a current rezoning submission. Henderson Farm is in two parts, with the larger northern parcel privately owned and a smaller southern parcel, directly adjoining the Pacific Pines playing fields, owned by Ballina Shire Council. The proposal for urban zoning applies to both parts of that property.

Residential development adjoins the north-eastern part of the site. Vacant land fronting North Creek Road adjoins the eastern part of the land. This vacant ridgetop land was included within the previously adopted SEPP 71 Master Plan, but has since been subdivided from the parent parcel. It is retained by the previous land owners.

Land within the Ballina Nature Reserve adjoins the south-western part of the site, with much of that land mapped as wetland within *State Environmental Planning Policy No. 14 – Coastal Wetlands*. The western part of the site also adjoins council-owned land within which sporting fields have been substantially completed (by the previous land owner under an agreement with Ballina Shire Council relating to previous stages of Pacific Pines).

An area of littoral rainforest, mapped under *State Environmental Planning Policy No. 26 – Littoral Rainforests*, is located within 100 m of the north-west corner of the site.



Illustration 2.1 The Site



Illustration 2.2 Site Context



2.3 Site History

The land was originally rezoned in March 1989 to its current zoning of 2(b) Village under the Ballina Local Environmental Plan (BLEP) 1987. At the same time, a detailed subdivision layout plan was adopted by Ballina Shire Council as a Development Control Plan for the land.

Since that time, four stages of the Estate have been approved and constructed, with a total of approximately 220 residential lots created. In addition to various subdivision approvals, the site enjoys two development approvals that are relevant to the Concept Plan application. These are:

- development approval 1999/248, which approved Stage 3 of the Pacific Pines Estate and included consent for bulk earthworks on the site, to cut material from the north-eastern hill for use to fill the central portion of the development areas (this consent has been commenced and remains valid); and
- development approval 2002/333, which provided approval for the excavation of the Water Quality Control Pond (WQCP) in the middle western part of the site, with the excavated material used to provide fill for residential development on the subject site and for playing fields on the adjoining site (Lot 216 DP 1017615). This pond has subsequently been constructed.

The gazettal of *State Environmental Planning Policy No. 71 – Coastal Protection* in November 2002 brought with it the requirement for a Master Plan approval before any subsequent stages of the estate could be approved. A request for a waiver from the need to prepare a Master Plan was lodged in early 2003, arguing that the existing DCP, as amended, provided a strong planning foundation for the assessment of all future development. That request was refused.

An application for Master Plan approval under SEPP 71 was lodged in late December 2003 (MP 27-12-2003). After a comprehensive assessment process, including considerable public consultation, assessment of numerous environmental reports and subsequent amendments to the submitted plans, the Minister for Planning adopted the SEPP No 71 Master Plan No. 27-12-2003 on 23 March 2006.

The approved Master Plan related to land known as Lot 217 DP 1017615. This land was subsequently subdivided to create two lots, Lots 233 and 234 DP 1104071. Lot 233 was retained by the previous land owner and Lot 234 was purchased by Petrac Pty Ltd and is the subject of this Concept Plan and Project Application.

2.4 Existing Land Use

The site is currently vacant and used for low scale grazing of beef cattle. Maintenance of the adjacent sports fields is currently underway in preparation of their handover to the community.

2.5 Site Analysis

Illustration 2.3 shows a diagrammatic analysis of the site, with **Illustration 2.4** showing a detailed slope analysis. As shown, the eastern part of the site contains moderately to steeply sloping land, falling to a flatter area in the western part. A number of gullies drain the sloping land, discharging through the constructed pond to the adjoining SEPP 14 wetland area. As filling of the low-lying parts of the site has been approved (DA 2002/333), the land will not be subject to tidal or flood inundation. Given its location to the west of the Lennox Head high lands, the site is not at any risk in terms of long term coastal erosion. Impacts associated with sea level rise are unlikely to directly impact the site. Indirect impacts are, however, possible with associated increased flood levels in North Creek. These indirect impacts have been addressed within the flood / drainage analysis and design (see **Section 8**).



Illustration 2.3 Site Analysis

Illustration 2.4 Slope Analysis



The site contains three soil types. In the lower parts of the site, the soil consists of soft wet clays overlying loose to medium dense sands. The lower slopes of the surrounding ridges contain stiff to very stiff red clay soils overlaying alluvial clays and clayey gravel. The higher slopes contain stiff to very stiff silty sandy clay overlying clayey gravel.

In association with the adopted Master Plan, the land was the subject of a preliminary environmental site assessment (Ardill Payne and Partners, August 2003). That site assessment included a review of regional geography, hydrology, testing for acid sulphate soils, examination of historical air photos, and a review of potential soil contamination. The review of site history revealed that the land has been used for agricultural (pastoral) activities. No visual sites of potential contamination were observed and soil from test pits was analysed with results showing less than the criteria prescribed for residential use by the NSW EPA. Based on the site history investigations and the soil sampling conducted, Ardill Payne and Partners report that the potential for significant environmental risk associated with soil contamination of the site is low.

As shown in **Illustration 2.1**, the site is generally cleared, other than isolated paddock trees, fence line vegetation along boundaries and two stands of remnant vegetation located towards the eastern part of the land, close to the northern and southern boundaries.

Native vegetation on the site consists of a number of vegetation communities, including mid-high closed littoral rainforest, tall open Swamp Oak forest, tall open swamp sclerophyll forest, Sedgeland / rushland and low closed grassland. Several isolated Moreton Bay Figs (*Ficus macrophylla*) are scattered throughout the subject site. Several of these trees appear to be quite old and may have local historical significance.



Plate 2.1 Existing Fig Tree

The littoral rainforest vegetation is in a degraded state, with relatively low species diversity. The small, isolated pockets of littoral rainforest are fragmented, are subject to trampling by cattle and contain a significant portion of exotic species, mainly Camphor Laurel (*Cinnamomum camphora*). A significant proportion of this community also appears to consist of common regrowth species.

The Swamp Oak forest community occurs as a fragmented patch to the north-east of the rainforest community, at the south-eastern end of the site. It is in a degraded state with a fragmented canopy dominated by Swamp Oak (*Casuarina glauca*) and Camphor Laurel (*Cinnamomum camphora*). The midstorey and understorey vegetation is relatively low in diversity and contains a significant proportion of exotic species. The site is also subject to trampling by cattle. This vegetation community is only approximately 0.3 ha in area and is therefore also subject to edge effects.

The Tall Open Swamp Sclerophyll Forest occurs as a small patch in the low-lying south-western portion of the subject site directly east of the water quality control pond. It occurs over approximately 0.1 ha and has relatively good diversity in relation to its size. A drainage line runs directly adjacent to this vegetation creating semi-inundated areas in the community and has resulted in macrophytes such as Cumbungi (*Typha orientalis*) infiltrating from the edges. Cattle also have access to this area of vegetation as trampling is evident around the fringes of the community.

Detailed assessment of the significance of these vegetation stands is contained in **Appendix B**, and is summarised in **Section 8.1**.

As part of this assessment, targeted site surveys were undertaken for threatened flora and fauna species. Four threatened flora species were identified within the littoral rainforest, including White Laceflower (*Archidendron hendersonii*), Red Lilly Pilly (*Syzygium hodgkinsoniae*), Rough-shelled Bush Nut (*Macadamia tetraphylla*) and Arrow Head Vine (*Tinospora tinosporoides*). Hairy Joint Grass (*Arthaxon hispidus*), listed as Vulnerable pursuant to both the Commonwealth's *Environment Protection and Biodiversity Conservation Act 1999* and the New South Wales *Threatened Species Conservation Act 1995*, was identified throughout some of the lower lying central parts of the site.

Detailed assessment of potential impacts on these threatened species is outlined in **Appendix B** and is summarised in **Section 8.1**. A draft strategy has been prepared for the management of Hairy Joint Grass on the site and in the locality, and this is contained in **Appendix C** and further discussed in **Section 8.1**.

Consultation and Issues Raised

Petrac undertook a unique and innovative consultation and design process to inform the Part 3A Concept Plan and Project Application. The consultative process included the local community, Ballina Shire Council and relevant State Government Agencies and consisted of a community survey and an Enquiry By Design (EBD) workshop. The information obtained from the community survey and EBD workshop was vital in the preparation of this Concept Plan and clearly demonstrates the benefit of undertaking quality community consultation at the 'front end' of the project.

The outcomes of the consultation have also been important in informing the preparation of this Environmental Assessment.

3.1 Enquiry by Design Workshop

As part of the consultation, an Enquiry By Design (EBD) workshop was undertaken. This was an intensive five-day collaborative design process that provided an excellent opportunity to create a well resolved and broadly supported design for the Pacific Pines site. The EBD workshop brought together Petrac and its design team with Council staff, relevant government agencies, surrounding developers and, most importantly, the local community of Lennox Head. The workshop took place from the 30th March to 3rd April 2007 in Lennox Head and was widely publicised beforehand.

The EBD process considered all aspects of the Pacific Pines Estate and the various opportunities and constraints of the site. The process used detailed design solutions to test the practicality and acceptability of the proposed changes so that stakeholders could view, understand and cost the proposals.

The overarching aim of the workshop was to ensure the design of the Pacific Pines site better contributed to the Lennox Head community. The participants at the EBD Workshop were guided by the following broad objectives:

- design of the site as a focal point of the valley;
- incorporation of an innovative, high quality retirement community;
- integration with existing surrounds;
- optimised routes for walking, cycling and public transport;
- protection and enhancement of the environmental features;
- revision of previously adopted street and drainage network to better fit with natural slopes and valley lines;
- provision of community and other facilities; and
- preparation of housing design principles to create a special coastal Lennox Head character for the development.

The outcome of the workshop was a draft concept plan which included an indicative design for the whole site. Over a hundred people were present at both the opening and closing presentations of the workshop with a large number also attending throughout the week. A 'Summary of Outcomes' report was produced and distributed throughout Lennox Head. A copy of this summary booklet is attached as **Appendix D**.

3.2 Community Survey

Prior to the EBD, an independent community telephone survey was undertaken. It involved a series of questions to a sample of 300 Lennox Head residents. A range of important topics were covered in the survey including: workplace and travel distances, retail and general services in Lennox Head, knowledge of the Pacific Pines Estate, residential growth, retirement housing, supermarkets, sporting facilities, community activities and traffic and transport.

The survey results reflected the strong sense of community among Lennox Head residents, based heavily on the collective appreciation for the simple and relaxed coastal lifestyle. One of the most valuable outcomes from the community survey was Petrac gaining a clear understanding of the importance of preserving the unique 'village feel' of Lennox Head when considering the new Concept Plan for the Pacific Pines Estate. Finally the survey results were examined and included for broad collection of other research and investigations conducted by the EBD team on Lennox Head, the surrounding region and Pacific Pines Estate.

3.3 Council and Agency Consultation

Ballina Shire Council, and all relevant Government Agencies, were invited and attended the EBD workshop, which enabled them to have effective and comprehensive input into the Concept Plan during the design process. Council staff attended specific workshops during the EBD, providing the project team with valuable advice regarding their requirements, their local knowledge and their ideas regarding issues relevant to the site and its development.

Following the EBD a number of follow-up meetings have been held with Council to keep them informed about the progress of the Concept Plan design development.

Despite the invitations to all relevant State Agencies, only the North Coast Regional office of the Department of Planning was represented at the EBD.

Development Proposal - Concept Plan

4.1 Background

Four stages of the Pacific Pines Estate have been completed and are located immediately south of the site. Approximately 220 lots have been constructed and virtually all are now occupied. This existing development has a gross density of around 8.6 dwellings per hectare.

The Concept Plan provides for the completion of this residential estate and also builds on two previously approved features.

A Water Quality Control Pond is located in the lower, central west part of the site. This pond was approved and constructed under a previous Development Consent issued by Ballina Shire Council (DA2002/333). It was proposed by the previous land owner as the primary stormwater management measure for the Pacific Pines Estate. As described in greater detail in later sections of this report, the watercycle management measures proposed for the current concept plan have adopted this Water Quality Control Pond as the basis for management, with additional 'at-source' and 'in-line' proposals adding to local stormwater treatment. The pond will be dedicated to Council following the approved maintenance period.

Sporting fields are located on adjoining Council-owned land (Lot 216 DP 1017615). The facilities were approved by Ballina Shire Council (DA2004/1113) and have been substantially constructed. Petrac have committed to a further upgrade of the approved facilities, to better meet the needs of local sporting groups. Updated approvals will be sought for these works, separate to this Part 3A process.

4.2 Vision

The vision for the Pacific Pines site has been developed by Petrac, Deicke Richards and GeoLINK as a result of the design outcomes and community issues uncovered during the Enquiry by Design (EBD) process. It is:

Pacific Pines is a liveable, sustainable community that provides a focal point for the North Creek Road area of Lennox Head. It contains a new range of amenities for community use and the ecologically sustainable design principles complement the existing coastal character. A choice of residential opportunities is provided in a manner that respects the topography of the site and integrates into the existing landscape.

An architecturally designed neighbourhood centre is integrated into the development, designed on main street principles and alfresco activity. The neighbourhood centre anchors the development and provides residents with an opportunity to meet most of their daily needs within walking distance of their homes.

A retirement community is integrated into the development, providing flexible living for early retirees plus a range of living choices and care services for residents to age in place. The retirement community is located within walking distance to shops, community facilities, the pond and parks.

The development respects the local environment and provides habitat enhancement for local threatened species on-site and on adjoining land. It contains a highly connected road and pedestrian system that encourages neighbourhood integration.

Context for this vision and for the Concept Plan developed from it, is outlined in detail in Deicke Richard's Urban Design Report, contained in **Appendix E**.

4.3 Concept Plan

The Concept Plan establishes the vision and planning framework that will be used by the consent authority to assess future development proposals within the Pacific Pines site. It articulates the vision developed by Petrac through the EBD consultation process and sets broad parameters for the development of the site.

This section of the report describes key development objectives and outcomes that underpin the development of the Pacific Pines site. It also describes the strategies adopted to achieve the vision and desired outcomes for the land. These strategies result in actions which are detailed in the Statement of Commitments (**Section 9**).

The Concept Plan is illustrated in the attached **Illustrations C1 to C10**, and is supported by the technical reports contained in the appendices to this report.

The proposed Concept Plan seeks the Minister's approval for a high quality development to complete the Pacific Pines Estate at Lennox Head. The Plan is shown in the attached drawing set, as **Illustration C1**.

The key elements of proposal include:

- The creation of a 'super lot' to be developed in the future to provide a local neighbourhood centre. This centre will include a local-scale shopping centre and associated retail, small businesses, a tavern, shop-top housing, a medical centre, and recreational, leisure and community facilities all clustered around a vibrant public domain that includes the existing pond as its main visual feature. The building height within the neighbourhood centre will range from 3 storeys, located at the north-east corner of the intersection of Hutley Drive and Main Street, to 2 storeys within the remainder of the centre.

While the neighbourhood centre is yet to be designed in any detail, approximately 2,500-3,000 m² of retail floor space is envisaged, with approximately 500-800 m² of commercial floor space and approximately 20-25 'shop-top' dwellings. Approximately 280 parking spaces will be provided on-site, with further on-street spaces available.

This Part 3A application does not seek approval for the development within the 'super lot'. That will be pursued by way of a separate development application once the lot is created.

- The creation of a 'super lot', located immediately to the east of the existing pond, to be developed in the future to provide an integrated retirement community. This will include a variety of retirement options, including assisted and independent living. It will also include on-site leisure, open space and recreational facilities.

The community will include approximately:

- 40 independent living units;
- 100 assisted living units; and
- 172 retirement lots.

The assisted living and independent living units will be provided within two multi-use buildings with a maximum height of 3 storeys, which will include community recreational uses at ground floor level, with two residential storeys above.

This Part 3A application does not seek approval for the retirement development within the 'super lot'. That will be pursued by way of a separate development application(s) once the lot is created.

- The creation of a 'super lot' to be developed in the future for a community centre. It is expected that a development application would be lodged once the super lot is created, for a multi-purpose building of some 3,000m² floor area. The design and functionality of the building will be designed and determined in conjunction with Ballina Shire Council.
- Residential areas containing approximately 481 lots of varying sizes to provide for a variety of housing densities and types, catering for a wide variety of needs within the community. The lots are provided in 'precincts' that are likely to include:
 - 29 large lots on steeper parts of the site (> 1,200 m²);
 - 123 'traditional' lots of around 800 m²;
 - 186 'traditional' lots with areas between 600 m² and 800 m²;
 - 8 duplex lots (900 m²);
 - 22 'small affordable' lots (450 m² – 600 m²);
 - 87 rear lane lots (450 m² to 600 m²); and
 - 26 'car court lots' (450 m² to 600 m²)

(Note: lot numbers and areas are approximate – subject to future applications and detailed design);

- Medium density housing precincts located in close proximity to facilities and services. A medium density 'super lot' of 2,380 m² is proposed, located close to the neighbourhood centre. A two storey development is envisaged and, although no proposal has been designed for this lot, a density of approximately 1 dwelling unit per 250 m² of the site might be expected (density control in existing Ballina DCP). This could result in approximately 10 dwellings on this super lot;
- Parks, footpath / cycleways and protected conservation areas all provided to a high quality standard for use of existing and future residents in the locality;
- A long term management strategy to protect and enhance threatened species habitat on-site and in the local area, particularly concentrating on habitat for Hairy Joint Grass (*Arthraxon hispidus*); and
- A highly connected and permeable street network, accessed by a number of existing streets, including Hutley Drive, Montwood Drive, Stoneyhurst Drive and the future connection to Henderson Farm, located to the west.

Overall, the proposal will provide for a gross dwelling density of around 10 dwellings per hectare. By way of comparison, the existing stages of Pacific Pines Estate have a gross density of around 8.6 dwellings per hectare.

The North Coast Urban Planning Strategy (DoP, 1993) suggests that urban land release strategies in this region should '*include measures to achieve better utilisation of urban land and a range of housing options – aiming to achieve a gross density of 15 dwellings per hectare in new release areas...*'. Such a high density is ambitious, and in the Pacific Pines case, could result in amenity and consistency concerns given the marked difference from current densities.

The Lennox Head Community Aspirations Strategic Plan (Ballina Shire Council, 2002) suggests an average gross density of 8 dwellings per hectare over all new release areas. Given the nature of some of the candidate release areas, it is likely that some will not be able to achieve densities of 8 dwellings per hectare because of site planning constraints. Other, less constrained sites, such as Pacific Pines, will need to include areas of higher density in order to achieve this overall average.

Given the above, it is considered that the proposed gross density of 10 dwellings per hectare is an appropriate response to development of the site in this locality.

Ultimate Yield

Based on the lot yields outlined above, it is anticipated that the Concept Plan will provide around 823 residential dwellings, which includes approximately 312 retirement dwellings, with a total ultimate population of approximately 1,737 people.

Table 4.1 Population Projections

<i>Lot Type</i>	<i>Anticipated dwellings</i>	<i>Occupancy Rate</i>	<i>Projected Population</i>
Large lots (>1,200m ²)	29	2.9	84
Traditional lots (>800m ²)	123	2.9	356
Traditional lots (600-800m ²)	186	2.9	538
Duplex Lots (900m ²)	16	2.3	37
Small Affordable Lots (450-600m ²)	22	2.3	51
Rear Lane Lots	87	2.1	183
Park Court Lots	26	2.3	61
Shop Top Housing	22	2.1	46
Independent Living Units	40	1.3	52
Assisted Living Units	100	1.05	105
Detached Retirement Lots	152	1.3	198
Attached Retirement Lots	20	1.3	26
Total	823		1,737

**Note: includes a theoretical yield of 10 dwellings on Super Lot #6 (medium density site)*

The occupancy rates utilised in **Table 4.1** are based on analysis of the 2006 Census of Population and Housing for the Lennox Head Urban Centre Locality (UCL), specifically Basic Community Profile Table B31 - Count of occupied private dwellings and persons in occupied private dwellings.

Average household size for the Lennox Head UCL averages 2.7. It differs considerably, however, by dwelling structure, ranging from 2.9 persons per household in separate homes, to 2.1 persons per household in attached flats, units and apartments.

For the purpose of this analysis, all traditional lots were assumed to represent separate homes and were allocated an occupancy rate of 2.9. Duplex, park courts and small affordable lots were assumed to represent semi-detached housing and were allocated a household size of 2.3 and rear lane and shop-top apartments were allocated the flat, unit and apartment rate of 2.1.

Allowing for the mix, the average household size for the general residential component of the proposed Pacific Pines development is 2.65.

In terms of the senior's livings component, a different method of calculating household size needed to be undertaken, as while the ABS collects data on the number of persons living in self-care (independent living), cared accommodation for the aged (assisted living) and nursing homes, it does not collect data on the total number of units. Petrac undertook a detailed capacity audit of all existing aged care providers within the Ballina Shire and, when cross-referenced with the ABS data, this reveals average persons per dwellings of 1.3 for independent living and 1.05 for assisted living. These figures are consistent with industry research and actual occupancies achieved at existing Petrac owned and operated seniors living operations.

Table 4.2 compares this anticipated yield with the concepts previously approved for the site (average dwelling occupancy of 2.65 persons per dwelling assumed as per current average).

Table 4.2 Population Comparison – Previous Approvals

	<i>1989 DCP</i>	<i>2006 SEPP71 Master Plan</i>	<i>Current Proposal</i>
Dwellings	870 total, including 330 medium density units	600 total, including 177 medium density units	823 total
Population	2,306	1,590	1,737
Neighbourhood Centre Area	4 ha	3.7 ha	3 ha
Open Space	Small parks plus sports fields	8.7 ha, plus sports fields	18.4 ha, plus sports fields

Density

Overall, the proposed Concept Plan has a lesser density than previous concepts approved for the site. As shown in Table 4.2, the original concept, adopted by Council as a DCP, involved 870 lots, with an overall population of some 2,175 people. The current proposal provides far fewer lots (481 in residential area and around 170 retirement lots), with an ultimate population of around 1,737 people.

However, whereas the previous concepts provided a relatively uniform density across the whole of the site, the current proposal includes areas within the site, the retirement component and around the main street, with higher densities, with densities decreasing away from the village centre. This is consistent with contemporary urban design principles and provides for compact and walkable communities.

Incorporating components of a slightly higher density also allow the provision of greater open space, which significantly adds to local residential amenity. The original DCP concept included only small local parks as open space (apart from the sporting fields). The 2006 SEPP 71 Master Plan included 8.7 ha of open space (excluding sports fields). The current concept plan includes 18.4 ha excluding the sports fields. This can only be achieved by increasing densities in the retirement and village centre areas.

Details regarding suggested development controls for the components of the Concept Plan are outlined in the Design Guidelines set out in **Appendix F** (summarised in **Section 4.14**).





Existing natural habitats will be protected and an existing drainage line will be enhanced to create a new brook flowing through the retirement community. The brook will also link existing linear areas of remnant native vegetation in the east, and a natural spring, to the pond and the Ballina Nature Reserve to the west.

A Green Network Plan identifying these local corridors is shown as **Illustration C2**.

The majority of the remainder of the site will be subdivided to create a mix of residential lot sizes, with smaller lots located closer to the proposed neighbourhood centre, detached housing lots of around 600-800 m² throughout much of the site and larger lots of up to 1,500 m² located on steeper slopes.



4.4 Urban Design Objectives and Principles

The urban design principles adopted for this project are based on themes drawn from the physical, social, economic, spatial and planning background of the site and its context. An urban design report containing more detail in this regard is contained as **Appendix E**.

The urban design objectives of the proposal are to:

- create a strong urban focus area for residents of the valley;

- incorporate an innovative, high quality retirement community;
- integrate the development with existing surrounds;
- optimise routes for walking, cycling and for public transport;
- ensure the protection and enhancement of environmental features;
- provide street and drainage networks to better fit with natural slopes and valley lines;
- provide a range of community facilities to serve the expected population; and
- provide housing design principles that will create a special coastal Lennox Head character for the development.

The future character of the Pacific Pines Estate, has been strongly influenced by its rural setting, undulating topography, rainforest remnants and coastal location. It will also, however, be characterised (and distinguished from other residential areas around the North Creek Road area) by incorporating residential and commercial uses and street treatments that strongly reflect the laid-back coastal character of the original Lennox Head village area.

The Concept Plan has been designed specifically to meet the expectations of the community as expressed in the Lennox Head Community Aspirations Strategic Plan. It does this by integrating with the surrounding residential areas, whilst offering a residential housing environment which has efficiency, livability and environmental responsibility as key urban design objectives.

Innovation in environmental management in relation to street treatments, stormwater control and the provision of habitat corridors are central elements of the Concept Plan and strongly influence the future character of the locality.

Development undertaken in accordance with the guiding principles enunciated in this Plan will provide lots arranged to promote solar benefits. House siting and design will reflect the climate of the region and promote a distinctive image that complements the north coast lifestyle and contributes to a sense of place. A range of housing options (e.g. live / work units, duplexes, single detached dwellings) will be provided to encourage a vital mixture of household types and lifestyles and a range of housing affordability.

The development will provide a high level of accessibility by having a well connected and permeable street network, which minimises cul-de-sacs and avoids development of a 'spaghetti-type' subdivision pattern. Streets will be orientated to maximise views and connections to public places, parks and hinterland. The site will encourage leisurely walking and passive recreation activities within a variety of settings, including open rural and park-like settings and rainforest / bushland settings.

4.5 Neighbourhood Centre

The small mixed-use Neighbourhood Centre will serve the broader North Creek Road community as well as the residents of Pacific Pines Estate. The Centre is small, and will complement the existing Lennox Head Neighbourhood Centre by providing a place where the local North Creek community can easily walk or drive to get daily needs and local services in a highly attractive vibrant centre.

The existing Lennox Village town centre is changing as the village grows. Previously it predominantly served local residents with the newsagents / grocery store, butchery, bakery, etc, the main retail uses. While those uses remain, cafes now dominate, with boutique fashion and giftware shops also growing.

As Lennox continues to grow, the Lennox Village centre will continue to play a more important role in servicing visitors, mainly day trippers from the local region, but also increasingly tourists from elsewhere.

The Pacific Pines commercial centre will therefore play an important ancillary role. Most of the additional residential population will live in this North Creek Road corridor and the commercial centre will service this population, providing for many of their day to day needs. Clearly, given the emerging role of the existing village centre, the two commercial areas will be complimentary, not competitive.

The Centre will front Hutley Drive, Main Street and the pond. Most of the shops and small commercial businesses will front onto Main Street, while the tavern and community hall will front both Main Street and the pond. There will be parking on Main Street and Hutley Drive, but most parking will be in an area behind the shops. The pond frontage near Main Street is designed as the main gathering place for the community. The waterfront area features decks and plazas, a terraced amphitheatre, shady boardwalks, seats, paths and informal parkland, which all create a public domain that is highly attractive.

Illustration C3 shows an indicative layout for the neighbourhood centre.

As indicated above, consent is not sought for the commercial development as part of this application. The application seeks approval for the 'super lot' in this area. Future applications will be made for development of that lot.



TAVERN VIEW
FROM HUTLEY DRIVE - LOOKING SOUTHWARDS



MAIN STREET VIEW
LOOKING SOUTHWARDS

4.6 Integrated Retirement Community

Like the neighbourhood centre, this application does not seek approval for the development of the retirement community. Rather, the application proposes the creation of a 'super lot' within which the retirement community will be developed, subject to future application(s). Notwithstanding, this conceptual information regarding the retirement community can be provided.

The retirement community is on relatively flat ground at the base of the amphitheatre, and will contain highly walkable slow-speed streets, which integrate with the rest of the development. The retirement community facilities will accommodate a range of housing types, including dwellings, duplexes, apartments and an Assisted Living Centre that will directly front the public boardwalk around the pond.

Illustration C4 shows an indicative layout for the retirement community.

The retirement community will be delivered by a joint venture between the proponents, Petrac Pty Ltd, and Gracious Retirement Living Pty, who have been involved in the development and management of retirement housing over the last 36 years, operating more than 265 complexes throughout the United States, Canada, and Europe.



Housing for Older People

The housing needs of older people are diverse, influenced by their lifestyle preferences, health and mobility, marital status, income level and cultural circumstances. The number of people living in purpose-built retirement and residential care accommodation is expected to continue to increase in coming years, with a growing demand for greater choice in housing, particularly from ageing baby boomers.

There is a clear trend away from institutional housing for older people towards new forms of housing that can respond to the need for affordable rental accommodation, flexible care arrangements, and the support of active ageing and lifestyle. The private sector is playing an increasing role in the provision of housing options for older people, mostly in the form of independent living accommodation.

The Independent Living housing model is an integrated form of retirement housing offering an independent lifestyle for older people in a resort style community, with the care and support of onsite staff. It is one of two forms of housing developed by Gracious Retirement Living (part of Petrac Pty Ltd) for older people, the second being Assisted Living (low care) which provides a higher level of residential care for people unable to live independently. In a few unique cases, like Pacific Pines Estate, the two types of accommodation are provided on the same site.

The model offers self-contained units of various sizes with access to a range of services and facilities, including: a resident manager and co-manager, communal dining room, an activities director, weekly cleaning and linen services, a village bus, unoccupied units for use by guests / visitors, communal facilities such as a swimming pool, library, meeting and activity rooms, and landscaped grounds supporting a range of outdoor activities.

Unlike traditional retirement villages, residential units are available on a rental not capital investment basis, with no entry or exit fees. Rent covers accommodation, meals and access to facilities and services.

Compact design and accessibility

The compact form in a single building is central to achieving synergy between design and function. It enables a number of concurrent benefits to be achieved, including: convenience of access along reduced and continuous paths of travel, including the use of lifts; clustering of units to promote a sense of belonging; and a price structuring to maintain affordability for the target group.

Sense of belonging and identity

Sense of belonging refers to a shared awareness of connections between people and places, encompassing physical elements (such as views and landmarks), social elements, and intangible aspects, such as feeling for place, understanding of its meaning to people and connection to local history.

Independent Living is typically developed over 3 storeys at a scale between 110 and 120 residential units. The overall impression is a one of a holiday resort / apartment complex, with a large resort style entry feature. The effect is residential in nature, though not 'homelike' in the sense of individualised dwellings.

Based on experience, Gracious Retirement Living's advice is that a sense of community is more readily achieved in the range of 120 units.

Sense of belonging and identity is also enhanced by the personal approach adopted by on-site managers, the provision of community facilities, the selection of sites with an attractive outlook, and the ability for residents to become involved in aspects of the running of the establishment.

Location and site features

An essential site selection criterion for the housing model is proximity to town centre facilities and public transport stops, specifically to promote accessibility to existing community facilities. The aim is to select sites within 400m of public transport, as well as retail and community services / facilities, accessible along paths with an overall average gradient of no more than 1:14. All of these features are encompassed within the proposed Pacific Pines location.

A pleasant outlook from communal spaces and residential units, particularly for less mobile residents, promotes resident enjoyment and wellbeing. Care is taken to select sites that offer views over attractive open space or panoramic views to generate a visual interest. The pond frontage provides this amenity at Pacific Pines Estate.

Social interaction and connectivity

The emphasis on social participation and physical activity in the siting, design and management is a key feature in creating the necessary synergy between the design and functioning of the housing, harnessing significant related benefits for healthy ageing.

In allocating tenancies, giving priority to prospective residents within a 10 km radius of the development helps to maintain existing family and friendship networks.

Housing choice and affordability

The rental tenure provides an alternative for people seeking a communal living arrangement, but not wanting the capital investment and high exit fees typical of most retirement villages. This option is also likely to appeal to people who do not want to live amongst residents with high level residential care needs while they are fit and active.

The housing proposal provides a mix of unit types and sizes to suit different household needs and preferences (e.g. income, size of household, preference for a guest room or study). A mix of units is provided throughout the development, including:

- Studio units;
- 1 bedroom units;
- 2 bedroom units; and
- 3bedroom units.

Independence and supported care

The combination of independent living with meals and housekeeping assistance, 24 hour on-site care in case of an emergency, and access to externally provided community care services, offers residents a secure and supportive environment in which to age.

Approximately 100 high care apartments are proposed within a building to be located adjacent to the pond. This facility will include full-time nursing staff to provide personal care, meals and cleaning services to all apartments. A second building will contain independent living units, for aged people who have better health and mobility.

To the west of this centre, approximately 160 independent living courtyard lots will be provided, ranging in size from around 215 m² to around 560 m². A range of house types and styles will be developed on these courtyard lots, including attached and detached housing.

4.7 Development Staging

The proposed staging plan is shown in **Illustration C5**. It is proposed that the development will be completed in around 11 stages. The development will commence at its heart, as proposed in the Project Plan application (see **Section 5**), and generally grow outwards. It is anticipated that the sports fields, community centre and mixed use facilities would be constructed early in the development, with Petrac aiming to construct these facilities as part of the stage one construction (Note: sports fields have been previously approved on an adjoining property. Petrac have negotiated some refinement of the sports fields design with Council and the community and have sought separate approval for that refinement. The sports fields works are totally separate to this Part 3A application).

Separate approvals will be sought for each of the future stages, and for the development of the 'super lots'. The Minister is requested to delegate authority to Ballina Shire Council to deal with future applications for this staged development under the provisions of Part 4 of the *Environmental Planning and Assessment Act 1979*.

4.8 Biodiversity Planning, Open Space and Landscape Corridors

The design of the open space network for the Concept Plan has been governed by existing vegetation and drainage pathways. The large corridor of remnant vegetation that runs north-south through the site will be retained in order to establish a continuous and connected reserve as a wildlife corridor and for pedestrian and water movement. An existing drainage line, which flows to the west from a central spring, will be retained and embellished as a 'brook', which will provide an east-west vegetated corridor, connecting the north-south corridor with the pond and the Ballina Nature Reserve beyond to the west.

Other smaller neighbourhood parks will be established where it is important to retain existing vegetation, for example the large figs and other established vegetation throughout the site.

The Coastal Design Guidelines (UDAS, 2003) suggest that any new design should '*locate and connect new and existing open spaces which protect and maintain nature reserves, conservation areas, parklands and environmental protection areas*'. Open spaces throughout the site are connected through a number of scenic pedestrian pathways, areas of ecological value, existing natural features and a range of active and passive recreational roles. The Green Network Plan is shown as **Illustration C2**.

Based on the Department of Sport and Recreation standard, the ultimate Pacific Pines population will generate demand for an additional 4.6 ha of open space.

The proposed Concept Plan provides for 18.4 ha of open space. That is four times the required amount under the Department of Sport and Recreation standard and represents a substantial 23 per cent of the site.

The open space characteristics are varied and capture the diversity of the coastal region. They include urban parks surrounding large fig trees, the central wildlife pond, a spring fed brook, Hairy Joint Grass habitat, revegetation zones and enhancement of existing bushland.

The open space adjacent to the retirement community (3.5 ha) is proposed to be private open space. This will assist with the maintenance of the area and ensure that the high quality landscaping is cared for by the community.

In addition to this open space Petrac will provide access to 6.0 ha of sporting fields for the Lennox Head community. Completion of the fields and road access will be the first task Petrac completes on the project (approvals being sought separately).

The site contains a number of important vegetation and habitat areas. Detailed assessment of the ecological values of these areas is outlined in **Appendices B and C** and summarised in **Section 8.1**. Significant ecological values will be protected through site design that retains existing vegetation stands and habitat areas and provides linkages, particularly through the provision of an enhanced 'brook' through the site. This open space area will conserve a number of existing areas, including rainforest remnants, an Ecologically Endangered Community (Swamp Oak Forest) and an area of habitat for Hairy Joint Grass (*Arthraxon hispidus*), which is listed as a vulnerable species under both the Commonwealth *Environmental Protection and Biodiversity Act 1999* and the NSW *Threatened Species Conservation Act 1995*.

A Hairy Joint Grass Management Strategy forms an integral part of this Concept Plan, and will ensure and enhanced protection outcome for this species and an enhanced biodiversity outcome generally in the local area. This strategy is detailed in **Appendix C** and summarised further in **Section 8.1**. It will provide a combination of on-site and off-site population retention and enhancement. The on-site retention will be centred around the proposed 'brook', while the off-site retention and enhancement involves an agreement between Petrac and Ballina Shire Council to undertake rehabilitation and enhancement plantings on the Council-owned land that adjoins the Pacific Pines site to the west (Henderson Farm South).

The Strategy will also involve investment into significant research into the species and its local distribution and a longer-term aspiration to provide a much larger corridor of Hairy Joint Grass within public land in the vicinity of the site, protected by environmental protection zoning.

4.9 Access and Movement Networks

The Pacific Pines community will be well connected to surrounding areas by a number of existing streets. The main connector streets are Hutley Drive, Montwood Drive and Stoneyhurst Drive. The proposal will also provide a connection to future development on Henderson Farm, located to the west of the site (a rezoning submission is being considered by Ballina Shire Council for that site).

The residential street network within the community will be interconnected to ensure a high level of permeability and legibility. The street network will also form the main walking and cycling network. In addition to this, walkways are proposed through the parks and open space and several pedestrian links through to Lennox Meadows and the existing housing to the south-east will make the whole site highly walkable.

The Movement Network is shown as **Illustration C6**. Indicative road sections, relative to the street types indicated in that network, are provided in **Appendix G**, to illustrate the urban design and engineering approach to street design.



Both Hutley Drive and Main Street are proposed as traditional two lane streets with on-street parallel parking. Slow points and kerb extensions at intersections will reduce the crossing distance for pedestrians and slow the speed of turning traffic.

Most of the residential streets will have narrower carriageways than typically found in Lennox Head. This is to better fit the streets to the hillside and to help slow traffic. It also contributes to sustainability by reducing the amount of paved area.

Most streets will have generous footpaths and shade trees. Key streets will be designed as traditional north coast avenues with large trees in wide grassed parking areas. These will include the Stoneyhurst Drive extension along the northern ridge (see **Appendix G**). This will allow an impressive avenue of Norfolk Pines to be established as a prominent ridgeline feature complementing the existing pine skyline at North Creek Road and Henderson Farm.



4.10 Watercycle Management

Watercycle management for the development is based on Water Sensitive Urban Design (WSUD) principals. The Stormwater Concept Plan is shown in **Illustration C7**. As shown, it provides for the treatment of stormwater through a site-specific water treatment train incorporating at-source treatment as well as subsequent nutrient and pollutant removal along the train with tertiary treatment in the WQCP. Stormwater is also retained on-site for recycling via the existing pond, whilst individual retention for each dwelling via rainwater tanks is encouraged in the Concept Plan.

Details of the Watercycle Management proposals are contained in the Engineering Report in **Appendix H**.

In summary, the water cycle management system provides for:

- continued use of the existing WQCP as a tertiary treatment system and main detention dam / recycling source for the development;
- provision of small dry detention systems upstream of the WQCP;
- provision of rainwater tanks for all lots;
- provision of numerous small primary litter traps in stormwater collection pits;
- provision of a stormwater community education program (CEP) by the proponent describing why the strategy has been adopted and how it works;
- ongoing monitoring of stormwater quality;
- provision of swales, infiltration and bio-retention systems in flatter areas; and
- provision of recycled effluent and stormwater for irrigation and toilets.

4.11 Services and Infrastructure Provision

A full range of services and infrastructure will be provided for the community. These include standard services such as water, sewer, telecommunications, electricity and roads. As outlined in the Engineering Report (**Appendix H**), it is proposed to provide dual water reticulation to all lots, implementing Ballina Shire Council's Water Reuse Scheme. This will eventually reticulate reclaimed water from Council's Lennox Head Sewage Treatment Plant to all lots.

This Water Reuse Scheme is not yet operational, but will eventually see the construction of a Reclaimed Water Reservoir on land near the Pacific Pines site.

Social services for the community will include a small mixed-use neighbourhood centre, which will serve the on-site community as well as the broader North Creek Road community. The centre will consist of a small commercial precinct, a tavern, community hall, arts / business / enterprise centre, childcare centre and other associated commercial activities.

The community will also include a full range of sporting and recreational facilities, parklands, footpaths and boardwalks.

4.12 Integration and Compatibility

The proposed mixed-use development will also contain a number of uses that, if not carefully designed and planned, have the potential to create internal land use conflicts. These uses include a neighbourhood / commercial centre including a tavern, commercial uses, community centre and childcare centre, retirement community, medium density housing and residential dwellings.

Potential conflicts that may arise from this mixed form of use include noise, traffic, visual amenity, water quality and socio-economic impacts. These potential conflicts and impacts have been carefully considered in the design of the Pacific Pines community. Measures that will be implemented to reduce conflict are comprehensively discussed in the body of this environmental assessment report. Some of these measures include:

- ensuring uses that have the potential to generate noise will be orientated away from residential areas; for example, the proposed commercial precinct, although centrally located, will be orientated towards the water quality control plan and nature reserve (**Section 8.10**);
- the careful siting of residential precincts to ensure that they will be located to minimise visual impacts from surrounding vantage points (**Section 8.12**);
- designing the road network to ensure ease of traffic flow and access to traffic generating nodes within the community and also connectivity to other residential precincts (**Section 8.7**);
- providing a comprehensive integrated water cycle management plan to control stormwater quality to ensure that the proposed development will treat all of its stormwater to acceptable levels (**Section 8.3**); and
- providing centrally located facilities to promote walking and cycling.

4.13 Management and Maintenance of Public and Environmentally Sensitive Lands

The concept plan proposes a number of ownership regimes for parkland, open space and environmentally sensitive land:

- WQCP and surrounding open space – this will be developed into a high quality open space area and handed over to Council after an agreed maintenance period;
- buffer zone from residential land to Henderson Lane – this 10 m buffer as proposed on the concept plan will be held in the ownership of individual property owners but will contain a 'restriction as to user' on all lots affected by the buffer zone, requiring maintenance and retention of all existing vegetation (this arrangement is consistent with that approved by the State Government in the previous SEPP 71 Master Plan);
- the open space areas within the proposed retirement community 'super lot' will be maintained by the owners and operators of the retirement community (with appropriate easements for public access); and
- all other parklands and environmentally sensitive areas will be handed over to Council after full rehabilitation / development as parks.



4.14 Proposed Development Controls

The Concept Approval will establish a range of development controls to apply to all future development within the Pacific Pines site. The proposed controls are set out in the Urban Design Guidelines report contained in **Appendix F**.

Overall, the concept plan will contain a number of lot typologies, contained in precincts across the site. The lot typologies are shown in **Illustration C8**. As shown, a mix of lot types and sizes are proposed, generally with smaller lots and greater densities located close to the neighbourhood centre, with larger lots proposed on the steeper slopes.

The Design Guidelines contained at **Appendix F** outline a wide range of suggested controls and acceptable performance solutions that deal with each of the lot typologies and address a range of relevant issues associated with the function and urban design of the development.

The development of Pacific Pines is being pursued by way of a Concept Plan approval under Section 75M of the *Environmental Planning and Assessment Act 1979 (Part 3A)*. This Concept Plan approval will outline the scope of the project and set out proposals for the staged implementation of the proposed development.

Following approval of the Concept Plan, future applications will be required to implement the development. Section 75P(2) of the Act requires that any future approvals must be 'generally consistent with the approval of the concept plan'. The Design Guidelines have been developed to provide a framework within which future applications can be assessed. Consistency with these Guidelines will ensure future applications are consistent with the Concept Plan.

It is also suggested these Design Guidelines be adopted by Ballina Shire Council as a Development Control Plan for the Pacific Pines site.

The guidelines are generally consistent with the form, content and controls outlined within Chapter 16 - Lennox Head of the Ballina Shire Combined Development Control Plan. The key exceptions relate to building height and setbacks, with alternate controls proposed for some precincts within the site.

Building Height

The Neighbourhood Centre is the focus of the Pacific Pines Estate. The centre is the most intensively developed component of the community, with a mixture of uses to encourage walking and to ensure vitality of the public areas. The Neighbourhood Centre does not directly adjoin existing low-density residential areas and is in the lowest part of the site so it has increased building scale in this area to help deliver the required intensity. It requires a high amenity public realm to encourage walking and interaction, shade, summer breezes, minimisation glare, places to sit and talk needed. It contains key community facilities that are celebrated in the urban composition.

It is therefore proposed that a three storey height limit be imposed for parts of the neighbourhood centre precinct. The suggested heights are shown graphically in **Illustration C9**, which shows indicative building forms within the precinct. As shown, it is anticipated that three storey buildings would be located within the shopping part of main street and in the western part of the retirement community.

Within the main street shopping precinct, three storeys will allow for a true mixed-use centre, with retail uses at ground level, commercial uses above and residential units on the upper floor. In all, approximately 20-25 shop-top dwellings are anticipated, which would provide a local on-site population to add to the vitality and viability of the neighbourhood centre.

As highlighted above, these taller buildings are located at the lowest part of the site. The remainder of the development looks down on this central focus area, which will reduce the visual effect of the height. This visual impact is assessed in more detail in the Visual Assessment Report, contained in **Appendix K**. The assessment concludes that the three storey component will not have a significant visual impact on this site given the distance from which it can be viewed from outside of the Pacific Pines site and the fact that public viewing areas outside of the site are located significantly higher than the neighbourhood centre.

Including shop-top housing as a third storey within the neighbourhood centre also significantly assists with achieving greater densities within a minimal environmental footprint. It has allowed an urban design that provides significantly more public open space that was previously planned for the site (see **Table 4.1**).

A three storey building height also allows for a more compact development, where approximately 70 per cent of all residents can be located within 400 m walking distance of the neighbourhood centre facilities. Within the retirement community, this effect is exaggerated, where the three storey assisted living building provides for high care facilities to be more easily provided to a significant number of residents. This adds to the viability and functionality of the assisted living component of the retirement community.

Outside of the neighbourhood centre precinct height controls will generally mirror those implemented within Ballina Council's current DCP. The only minor exception relates to residential development on more steeply sloping sites.

Chapter 16 of Council's DCP provides a building envelope approach to residential building height, with a building height plane approach within an overall height limit of 8.4 m. The design guidelines outlined in **Appendix F** suggest that, for land with slopes greater than 1:6, roofs (but not walls or gables) can protrude through the 8.4 m height restriction, to encourage articulation of the roof top elements.

Setbacks

Illustration C10 shows the setbacks suggested within the various precincts of the site. As shown, zero setbacks are suggested within the main street component of the neighbourhood centre. This will encourage uses that address the street and the provision of awnings over the footpath, and is typical of setback controls in more retail areas. A 2 m setback is proposed for the higher density areas immediately adjoining the neighbourhood centre. This area will contain the highest residential densities within the site, with live / work options to be encouraged. The reduced setback will allow for greater variety of building form and provide a level of consistency with the density of the adjoining centre.

Elsewhere throughout the residential precincts, 3.0 m setback will be the general control, although zero setbacks are proposed for rear land housing. This is consistent with Chapter 16 of the Ballina DCP and will allow residential buildings in this area to use the rear lanes for access, while the dwellings will address the front street.

As shown in **Illustration C10**, the four areas of 'park-court housing' will have setbacks of 2 m to the park edge, with 3 m to the street. Dwellings in these park court areas will front the parks and open space, with the rear of the dwellings fronting the streets. This will assist in providing passive surveillance for the adjoining open space and provide for high amenity for these houses. The 2 m setback is considered appropriate given the apparent level of open space at the front of these houses as they open onto the park.

Development Proposal - Project Application

5.1 Project Application

Project Approval is concurrently sought for stage one of the project. This first stage is shown in **Illustration P1** and involves the creation of a total of 58 lots. These include 6 'super lots', which will be later developed for a variety of uses; 49 conventional residential allotments, ranging in size from 510-1,010 m² (averaging approximately 720 m²); and 3 open space lots. A subdivision plan showing these lots is provided in **Illustration P2**.

Construction of Stage 1 will be undertaken in two 'sub-stages'. Sub-stage 1A will involve the creation and construction of the 49 conventional residential lots, with sub-stage 2 involving the remainder of the stage. The residential lots can be constructed using the existing road network and does not require the extension of Hutley Drive. Services can also be provided from within the existing residential area of Pacific Pines.

The lots will be serviced by a full range of water, sewer, electricity and telecommunication services. Stage one will also include the construction of a number of roads, parks and pedestrian links. A Landscape Plan and associated details for this first stage is provided in **Illustration P3**.

As indicated above, approval will be pursued separately for the future development of the 'super lots'. The intended use of these lots is:

- Super lot 1 – neighbourhood shopping centre;
- Super lot 2 – tavern;
- Super lot 3 – child care;
- Super lot 4 – community centre / hall;
- Super lot 5 – retirement community; and
- Super lot 6 – medium density housing.

5.2 Watercycle Management

The Stage 1 Stormwater Management Plan is shown as **Illustration P4**, and described in detail in the Project Plan Engineering Report contained in **Appendix H**.

Stormwater treatment measures proposed for this first stage include detention ponds, infiltration fields, bioretention facilities and the existing WQCP. Water quantity control is provided by the existing pond and three upstream detention ponds provided as part of the enhanced 'brook'. The system has been designed to maintain flows at existing pre-development rates, to limit impacts on downstream habitat areas.

Modelling undertaken for the proposed system design indicates that the proposed stormwater management measures will achieve significant reductions in Total Nitrogen, Total Phosphorous and Total Suspended Solids, compared to the existing pre-development scenario (see Table 2.1 of Project Plan Engineering Report, **Appendix H**).



5.3 Earthworks

A valid approval exists for earthworks within the site, involving a significant cut from the top of the hill at the north-east corner of the site and filling within the lower parts of the property.

The project application does not propose to rely wholly on that existing approval. Less severe cut is proposed from the northern ridge, as detailed in **Appendix I**, and shown in **Illustration P5**.

Filling has previously taken place at the adjacent playing fields and around the pond, associated with the approved construction of the pond. The construction of Stage 1B of the proposed development will involve excavation of material from the northern ridgeline and the placement of this material as fill within the low central part of the site.

The previous earthworks approval (DA 1999/248) involved a cut of some 4 m at the top of this ridge, with approximately 83,000 m³ of material won from this area. The current proposal involves a cut of 2 m, with approximately 40,000 m³ to be excavated. Final design contours are shown in **Illustration P6**.

An Erosion and Sediment Control Plan has been developed to manage the proposed earthworks. This plan is detailed in **Appendix I** and shown in **Illustration P7**, with details shown in **Illustration P8**. The proposed controls will ensure that the nearby wetland areas are protected during the construction of the development.

As shown in **Illustration P5**, the extent of bulk earthworks to be undertaken in the vicinity of the Hairy Joint Grass habitat is yet to be designed in detail. The intention is to maximise the retention of Hairy Joint Grass within the proposed brook and private open space areas. More detailed surveys of the location of the species are being undertaken and these will guide the design of the earthworks. Fill batters will be designed so that they do not smother the species, with the bulk of this habitat area to remain untouched.

Planning Framework

6.1 Commonwealth Matters

The Environment Protection and Biodiversity Conservation (EPBC) Act 1999 has been addressed in the ecological assessment contained in **Appendix B**.

The site contains Hairy Joint Grass (*Arthxon hispidus*), which is listed as 'vulnerable' under the Act. As highlighted above, this species has been recorded within the site and approximately 7.9 ha of suitable habitat is located on the site. The development proposal will result in the removal of a large portion of this habitat, with a management strategy proposed involving some on-site retention associated with further research into the species and off-site habitat enhancement works. This mitigation strategy is summarised below, and contained in full in **Appendix C**.

Given the listing of Hairy Joint Grass as Vulnerable, the development proposal was referred to the Commonwealth Department of Environment and Water Resources in July 2007.

By letter dated 29 August 2007, the Department advised the proponents that the action is considered to be 'controlled' under the provisions of the Act. A 'bi-lateral agreement' is in place between the Commonwealth and State Governments regarding the assessment of controlled activities where the proposal also requires approval under Part 3A of the *Environmental Planning and Assessment Act 1979*. Pursuant to this agreement, assessment of significance under the EPBC Act will, in effect, defer to the assessment of significance undertaken under the Threatened Species Conservation Act.

6.2 Part 3A, Environmental Planning and Assessment Act 1979

Part 3A of the Act commenced operation on 1 August 2005. It consolidates the assessment and approval regime for all major projects where the Minister was the consent or approval authority under Part 4 (Development Assessment) or Part 5 (Environmental Assessment).

Under the provisions of Section 75B of the Act, development may be declared a Major Project by virtue of a SEPP or by order of the Minister published in the Government Gazette.

Section 75M of the Act permits a proponent to lodge a Concept Plan either upon their request to or at the behest of the Minister. The purpose of the Concept Plan is to provide a broad overview of a proposed development and to establish the framework for more detailed development of the proposal subject to future approvals.

On 3 May 2007, the Director General, as a delegate of the Minister, formed the opinion that the development proposal was subject to Part 3A. The Director General's Environmental Assessment Requirements (DGRs) were provided on 18 May 2007 for a concurrent Concept Plan and Stage 1 Project Application.

6.3 State Environmental Planning Policy (Major Projects) 2005

The Major Projects SEPP identifies the types of development declared to be major projects for the purposes of Part 3A of the Act. For the purposes of the SEPP, certain forms of development may be considered a Major Project if the Minister (or his delegate) forms the opinion that the development meets criteria within the SEPP.

Relevant to the subject proposal, Clause 6 and Schedule 2 of the SEPP note that urban subdivision within the coastal zone creating more than 25 lots as a project to which Part 3A of the Act will apply.

6.4 Statement Environmental Planning Policies

The following State Environmental Planning Policies are relevant to this proposal.

State Environmental Planning Policy No. 14 – Coastal Wetlands

As shown in **Illustration 2.3**, SEPP 14 Wetland No. 88 affects a small portion of land along the western boundary of the property. No development is proposed within this wetland area, and the water cycle management measures incorporated into the development design will ensure that there are no indirect impacts on this wetland. Water cycle measures will result in a 30-60 per cent improvement in existing water quality standard, according to the Integrated Water Cycle Management Plan prepared by Ardill Payne & Partners (see **Appendices H and I**).

State Environmental Planning Policy No. 26 – Littoral Rainforests

As shown in **Illustration 2.3**, an area of SEPP 26 vegetation is located to the north-west of the property. The Concept Plan does not directly impact on this vegetation. Land within the site that is located within the 100 m buffer to this SEPP 26 area is proposed to be dedicated to Council as park.

State Environmental Planning Policy No. 44 – Koala Habitat Protection

The issue of Koala habitat is addressed within the Ecological Assessment prepared by GeoLINK, which concludes that the site does not contain any areas of potential Koala habitat (see **Appendix B**).

State Environmental Planning Policy No. 55 – Remediation of Land

The site has been investigated by Ardill Payne and Partners for potential soil contamination. They indicate that the site is not likely to be the subject of any contamination (see **Appendix H**). Accordingly, SEPP 55 will not be triggered by development pursuant to this Concept Plan.

State Environmental Planning Policy No. 71 – Coastal Protection

The proposed development is located in the coastal zone to which SEPP 71 applies.

The Pacific Pines Estate site is a 'sensitive coastal location' within the meaning of SEPP 71, as it is within 100 m of State Environmental Planning Policy No. 14 Coastal Wetland No. 88, which adjoins the western boundary of the land.

The Pacific Pines Estate site is located approximately 820 m from the coast. The land is screened from the coast by a ridgeline located along the eastern and north-eastern boundaries of the land and a knoll located along the northern boundary of the site. Accordingly, coastal processes including storms, elevated water levels, waves or the like will not have any substantive erosion or coastal inundation affect in relation to the subject site.

The provisions of Part 2 (Matters for Consideration) and Part 4 (Development Control) of the SEPP apply to this development. Key issues raised by these provisions are addressed in **Table 6.1**.

Table 6.1 SEPP 71 Matters for Consideration

<i>Matter for Consideration</i>	<i>Comments</i>
The aims of the Policy set out in Clause 2	
<i>Natural, cultural, recreational and economic attributes of the NSW coast</i>	The proposal involves the retention and embellishment of existing significant native vegetation on the site and the provision of a useable open space area for recreational purposes. There are no significant cultural items or attachments associated with the site (see below). Economically, the proposed development will have a range of benefits associated with increased jobs, increased rate base and increased spending capacity associated with additional population, and increased commercial choice for existing residents associated with the proposed commercial centre.
<i>Public access to coastal foreshores</i>	No coastal foreshore access is available directly from the land.
<i>New opportunities for public access to coastal foreshores</i>	No coastal foreshore access is available directly from the land.
<i>Aboriginal heritage</i>	<p>A cultural heritage assessment of the Pacific Pines Estate has been prepared by Everick Heritage Consultants Pty Ltd (see Appendix J). An archaeological assessment was also conducted over the subject land, with the assistance of the Jali Local Aboriginal Land Council (LALC) in 2003 by Adrian Piper Heritage Surveys.</p> <p>Both of these assessments concluded that there is a low potential for sites to occur and therefore the study area was considered to have a low level of archaeological sensitivity. Further, the reports indicate that the Jali Local Aboriginal Land Council place no significance on any Aboriginal sites in the study area nor do they attach any significance to any part of the study area.</p> <p>Notwithstanding this, the Jali LALC has recommended that 'a strip of natural rainforest' be retained, as food sources it contains are considered to be important in maintaining their culture. They have also recommended that a spring located in the east of the site be retained as natural water supplies carry a level of cultural attachment. The Concept Plan has adopted these recommendations, maintaining the rainforest and the spring within an area of open space that will have easy access from all sides.</p>

<i>Matter for Consideration</i>	<i>Comments</i>
<i>Visual amenity</i>	<p>Parts of the site are able to be viewed from Seven Mile Beach, albeit from some considerable distance, and from a number of vacant public reserves and roads in the nearby residential areas. Whilst the whole of the site can be viewed from within the earlier stages of the Pacific Pines Estate, it is not significantly exposed visually.</p> <p>A visual assessment carried out for the site is contained in Appendix K. It concludes that the proposed development will not result in a significant detrimental impact on the visual amenity of the locality.</p>
<i>Beach environments and amenity</i>	No direct access to beach environments is available from the site.
<i>Native coastal vegetation</i>	The proposal involves the retention and embellishment of existing significant native vegetation on the site.
<i>Marine environment</i>	The subject site is located some 0.8 km from the ocean. Stormwater from the site will discharge, following appropriate detention and treatment, to the west into the Ballina Nature Reserve. This system flows into the Richmond River system before entering the marine environment.
<i>Rock platforms</i>	No rock platforms are located in the vicinity of the proposed development.
<i>Ecologically sustainable development</i>	The <i>Coastal Guidelines for NSW</i> have been designed to facilitate development in accordance with ESD principles. The subject development is consistent with the guidelines.
<i>Type, bulk and scale of the development in relation to the location and natural scenic qualities</i>	The proposed development is designed to be compatible with the natural topography of the locality and is of a type, bulk and scale consistent with existing residential development adjoining the site and the natural character of the land.
<i>Strategic approach to coastal management</i>	<p>The land has previously been zoned to accommodate residential development in the Lennox Head area and the proposed development is consistent with the applicable Strategic Planning Policies of Ballina Shire Council.</p> <p>The proposed development is also consistent with the Far North Coast Regional Plan in that the site is located within the Village Growth Boundary for Lennox Head.</p>
<i>Suitability of the development given its type, location and design and its relationship to the surrounding area</i>	The proposed development is designed to be compatible with the topography of the locality and is of a type, bulk and scale consistent with existing residential development adjoining the site and the natural character of the land. The development has been designed in accordance with the <i>Coastal Design Guidelines for NSW</i> .
<i>Amenity of the coastal foreshore</i>	The site is not located along the coastal foreshore.
<i>Scenic qualities of the NSW coast</i>	The subject site is located well back from the immediate coastal edge. The development has been designed in accordance with the <i>Coastal Design Guidelines for NSW</i> , with the scenic qualities of the locality in mind.

<i>Matter for Consideration</i>	<i>Comments</i>
<i>Threatened flora and fauna</i>	The proposal involves the retention and embellishment of existing significant native vegetation on the site. A draft strategy for the management of Hairy Joint Grass, a threatened species listed as 'vulnerable', is contained in Appendix C . The strategy will ensure the protection and enhancement of that species in the locality.
<i>Fish and marine vegetation and habitats</i>	The site adjoins the Ballina Nature Reserve. Stormwater resulting from the proposed development will be treated prior to discharge into the Nature Reserve, which then flows into the Richmond River Estuary system before entering the ocean.
<i>Wildlife corridors</i>	The proposal involves the retention and embellishment of existing significant native vegetation on the site. In particular, the embellishment of the vegetation that currently exists in the north-eastern and south-eastern parts of the site, to create a vegetated open space strip right across the site, will provide for a wildlife corridor.
<i>Coastal processes and hazards</i>	The site is located some 0.8 km from the coastal foreshore. It is not identified as being subject to coastal processes and hazards.
<i>Conflict between coastal activities</i>	The proposed development will not result in any conflict between land based and water based activities as it is not located on the foreshore.
<i>Aboriginal heritage</i>	See above.
<i>Water quality</i>	Water quality within the adjacent SEPP 14 wetland will be protected via a stormwater management system designed to augment and improve upon the proposed Water Quality Control Pond approved for the site under DA 2002/333. Overall, the water cycle management system proposed includes rainwater harvesting, pollutant traps, grassed swales and retention and infiltration ponds to ensure that stormwater pollutant loads from the developed site will be less than pre development levels (see Appendices H and I).
<i>Items of heritage, archaeological or historical significance</i>	See above.
<i>Draft LEP</i>	N/A
<i>Cumulative impacts and resource water and energy resource efficiency</i>	As indicated in the specialist research, no significant adverse cumulative impacts are anticipated as a result of the proposed development. The proposed subdivision will be serviced by the existing reticulated water and electricity grid in the locality.
<i>Flexible Zone Provisions</i>	The proposed development does not seek to use the flexible zone provisions in the Ballina LEP 1987.
<i>Effluent Disposal</i>	Effluent will be disposed of via a reticulated sewer system.
<i>Stormwater</i>	All stormwater will be treated prior to discharge. Stormwater pollutant loads and volumes post development will not exceed the levels experienced pre development. In fact, it is estimated that they will improve by some 30-60 per cent.



Illustration 6.1 SEPP 71 Master Plan

Clause 18 of SEPP 71 requires the adoption of a Master Plan for certain specified development. Pursuant to this clause, the Minister for Planning adopted SEPP No 71 Master Plan No. 27-12-2003 for the subject site on 23 March 2006. The adopted Master Plan proposed a residential subdivision of the land, with provision for a future neighbourhood commercial / community centre. The development proposed by the Master Plan is shown in **Illustration 6.1**.

State Environmental Planning Policy (Seniors Living) 2004

The concept plan provides for a retirement community and Project Approval is concurrently sought for the creation of the 'super lot' that will provide the site for the retirement community in a later stage of the Pacific Pines development.

Pursuant to Section 75J(3) of the *Environmental Planning Assessment Act 1979*, the Minister is not required to take the Seniors Living SEPP into account in granting concept plan or project approvals under Part 3A.

Notwithstanding this, a detailed assessment of consistency with the SEPP is described below.

4. Land to which Policy applies

(1) General

This Policy applies to land within New South Wales that is land zoned primarily for urban purposes or land that adjoins land zoned primarily for urban purposes, but only if:

(a) development for the purpose of any of the following is permitted on the land:

(i) dwelling-houses,

(ii) residential flat buildings,

(iii) hospitals,

(iv) development of a kind identified in respect of land zoned as special uses, including (but not limited to) churches, convents, educational establishments, schools and seminaries, or

(b) the land is being used for the purposes of an existing registered club.

The site is zoned 2(b) Village Area under the *Ballina Local Environmental Plan 1987*. All of the development types listed above are permissible within this zone with the consent of Council.

(6) Land to which Policy does not apply

This Policy does not apply to:

(a) land described in Schedule 1 (Environmentally sensitive land), or

The land proposed to be developed in the future for an integrated retirement community is not described as Environmentally Sensitive Land in terms of the description outlined in Schedule 1. As highlighted above, the land is zoned 2(b) Village Area.

(b) land (other than land to which Warringah Local Environmental Plan 2000 applies) that is zoned for industrial purposes, or

(c) land to which Warringah Local Environmental Plan 2000 applies if the land is located in any of the following localities under that Plan

(d) the land to which Sydney Regional Environmental Plan No 17—Kurnell Peninsula (1989) applies.

None of these plans apply to the site.

Chapter 2 Key concepts

10. Seniors housing

In this Policy, seniors housing is residential accommodation that is, or is intended to be, used permanently for seniors or people with a disability consisting of:

- (a) a residential care facility, or*
- (b) a hostel, or*
- (c) a group of self-contained dwellings, or*
- (d) a combination of these,*

but does not include a hospital.

The 'super lot' proposed within the Stage 1 subdivision will be developed in the future for a range of seniors living options. At this stage, it is intended that the integrated retirement community will contain a residential care facility and a number of self-contained dwellings. All will have access to a range of services suitable for aged and retired people.

11. Residential care facilities

In this Policy, a residential care facility is residential accommodation for seniors or people with a disability that includes:

- (a) meals and cleaning services, and*
- (b) personal care or nursing care, or both, and*
- (c) appropriate staffing, furniture, furnishings and equipment for the provision of that accommodation and care,*

not being a dwelling, hostel, hospital or psychiatric facility.

The integrated retirement community is likely to include a *residential care facility*. At this stage of planning, it is envisaged that the residential care facility will be provided within a three storey building located on the western part of the retirement site, adjacent to the existing lake. The building is likely to have mixed uses on the ground floor, with the residential care facility forming part of the first and second floors.

13 Self-contained dwellings

- (1) General term: "self-contained dwelling"*

In this Policy, a self-contained dwelling is a dwelling or part of a building (other than a hostel), whether attached to another dwelling or not, housing seniors or people with a disability, where private facilities for significant cooking, sleeping and washing are included in the dwelling or part of the building, but where clothes washing facilities or other facilities for use in connection with the dwelling or part of the building may be provided on a shared basis.

- (2) Example: "in-fill self-care housing"*

In this Policy, in-fill self-care housing is seniors housing on land zoned primarily for urban purposes that consists of 2 or more self-contained dwellings where none of the following services are provided on site as part of the development: meals, cleaning services, personal care, nursing care.

- (3) Example: "serviced self-care housing"*

In this Policy, serviced self-care housing is seniors housing that consists of self-contained dwellings where the following services are available on the site: meals, cleaning services, personal care, nursing care.

The integrated retirement community will include *serviced self-care housing*. At this stage, approximately 100 individual dwellings are envisaged. Residents of these self-contained dwellings will be able to access on-site services including meals, cleaning services, personal and nursing care.

Chapter 3 Development for seniors housing

Part 1 General

14. Objective of Chapter

The objective of this Chapter is to create opportunities for the development of housing that is located and designed in a manner particularly suited to both those seniors who are independent, mobile and active as well as those who are frail, and other people with a disability regardless of their age.

The proposed retirement community will be consistent with this objective. It will provide residential opportunities for a variety of aged people, catering for all levels of care.

16. Development consent required

Development allowed by this Chapter may be carried out only with the consent of the relevant consent authority unless another environmental planning instrument allows that development without consent.

Consent for the integrated retirement community is not sought as part of either the Concept Plan or the Stage 1 Project Application. Rather, the application seeks consent for the creation of a 'super lot' within which the retirement community will be proposed. Consent will subsequently be sought following the creation of the lot.

Information provided in this report is indicative only, to allow the Minister to understand the intent of the proponent for the future use of the land.

24. Site compatibility certificates required for certain development applications

- (1) *This clause applies to a development application made pursuant to this Chapter in respect of development for the purposes of seniors housing (other than dual occupancy) if:*
- (a) *the development is proposed to be carried out on any of the following land to which this Policy applies:*
 - (i) *land that adjoins land zoned primarily for urban purposes,*
 - (ii) *land that is within a zone that is identified as "special uses" under another environmental planning instrument (other than land on which development for the purposes of hospitals is permitted),*
 - (iii) *land that is used for the purposes of an existing registered club, or*

None of the above apply in the Pacific Pines case.

- (b) *the development application involves buildings having a floor space ratio that would require the consent authority to grant consent under clause 45.*

Clause 45 allows, in certain circumstances, a development to be approved with a floor space ratio in excess of that required under relevant environmental planning instruments. The need for this will be considered when the retirement community proposal is designed. At this stage, the Part 3A application seeks approval for the creation of a 'super lot' to be developed in the future.

- (2) *A consent authority must not consent to a development application to which this clause applies unless the consent authority is satisfied that the Director-General has certified in a current site compatibility certificate that, in the Director-General's opinion:*
- (a) *the site of the proposed development is suitable for more intensive development, and*
 - (b) *development for the purposes of seniors housing of the kind proposed in the development application is compatible with the surrounding environment having regard to (at least) the criteria specified in clause 25(5)(b).*

As indicated above, this Part 3A application seeks approval for the creation of a 'super lot' to be developed in the future for seniors housing. Once that future development is designed, we will determine whether it is development of the type that requires a site compatibility certificate. Nothing in this SEPP specifies a requirement for such a certificate at this subdivision stage.

Part 2 Site-related requirements

26. Location and access to facilities

- (1) *A consent authority must not consent to a development application made pursuant to this Chapter unless the consent authority is satisfied, by written evidence, that residents of the proposed development will have access that complies with subclause (2) to:*
- (a) *shops, bank service providers and other retail and commercial services that residents may reasonably require, and*
 - (b) *community services and recreation facilities, and*
 - (c) *the practice of a general medical practitioner.*

The Pacific Pines development will include a neighbourhood centre comprising retail, small businesses, a tavern, medical centre, leisure and community facilities and a public domain. The 'super lot' is located within 100-300 m of the neighbourhood centre along relatively flat ground. This is further discussed below.

- (2) *Access complies with this clause if:*
- (a) *the facilities and services referred to in subclause (1) are located at a distance of not more than 400 m from the site of the proposed development that is a distance accessible by means of a suitable access pathway and the overall average gradient for the pathway is no more than 1:14, although the following gradients along the pathway are also acceptable:*
 - (i) *a gradient of no more than 1:12 for slopes for a maximum of 15 m at a time,*
 - (ii) *a gradient of no more than 1:10 for a maximum length of 5 m at a time,*
 - (iii) *a gradient of no more than 1:8 for distances of no more than 1.5 m at a time, or*

The various retail and commercial facilities within the Pacific Pine Neighbourhood Centre will be located within 100 m to 300 m of the proposed Seniors Living 'super lot'. The gradient between the two areas is essentially flat and easily accessible along proposed level walking paths.

- (b) *in the case of a proposed development on land in a local government area within the Sydney Statistical Division—there is a public transport service available to the residents who will occupy the proposed development:*

The development is not located in a local government area within the Sydney Statistical Division.

- (c) *in the case of a proposed development on land in a local government area that is not within the Sydney Statistical Division - there is a transport service available to the residents who will occupy the proposed development:*
 - (i) *that is located at a distance of not more than 400 m from the site of the proposed development and the distance is accessible by means of a suitable access pathway, and*
 - (ii) *that will take those residents to a place that is located at a distance of not more than 400 m from the facilities and services referred to in subclause (1), and*
 - (iii) *that is available both to and from the proposed development during daylight hours at least once each day from Monday to Friday (both days inclusive),**and the gradient along the pathway from the site to the public transport services (and from the transport services to the facilities and services referred to in subclause (1)) complies with subclause (3).*

The Pacific Pines community will be served by a bus route that would run down Hutley Drive (from the north) to Main Street, and then service the proposed retirement community (the 'super lot') and the continue along Montwood Drive. The bus route will take residents to the Pacific Pines neighbourhood centre and further to the Lennox Head, Ballina and Byron Bay shopping centres as well as stops in between. The CBD's of these coastal villages are generally flat and easily accessible using existing council maintained pathways.

- (3) *For the purposes of subclause (2) (b) and (c), the overall average gradient along a pathway from the site of the proposed development to the public transport services (and from the transport services to the facilities and services referred to in subclause (1)) is to be no more than 1:14, although the following gradients along the pathway are also acceptable:*
- (i) *a gradient of no more than 1:12 for slopes for a maximum of 15 m at a time,*
 - (ii) *a gradient of no more than 1:10 for a maximum length of 5 m at a time,*
 - (iii) *a gradient of no more than 1:8 for distances of no more than 1.5 m at a time.*

As discussed above, a bus stop will be located within the proposed seniors housing precinct that will be developed within the 'super lot'. The gradients within the 'super lot' and from the 'super lot' to the neighbourhood centre are negligible due to the flat topography of the site. Level pathways will connect the future retirement precinct to the Pacific Pines Neighbourhood Centre.

- (4) *For the purposes of subclause (2):*
- (a) *a suitable access pathway is a path of travel by means of a sealed footpath or other similar and safe means that is suitable for access by means of an electric wheelchair, motorised cart or the like, and*
 - (b) *distances that are specified for the purposes of that subclause are to be measured by reference to the length of any such pathway.*

An interconnected series of level, paved or sealed walkways will provide suitable access by means of wheelchair / 'gopher' cart or walking between each of the 'precincts' within the proposed Pacific Pines community, including the retirement precinct. In addition, there will be walkways through parks and open space and several pedestrian links through to Lennox Meadows and to the existing housing to the south east of the development site.

27. Bush fire prone land

- (1) *A consent authority must not consent to a development application made pursuant to this Chapter to carry out development on land identified on a bush fire prone land map certified under section 146 of the Act as "Bush fire prone land—vegetation category 1", "Bush fire prone land—vegetation category 2" or "Bush fire prone land—vegetation buffer" unless the consent authority is satisfied that the development complies with the requirements of the document titled Planning for Bushfire Protection, ISBN 0 9751033 2 6, prepared by the NSW Rural Fire Service in co-operation with the Department of Planning, dated December 2006.*

The 'super lot' is not mapped as bushfire prone land.

28. Water and sewer

- (1) *A consent authority must not consent to a development application made pursuant to this Chapter unless the consent authority is satisfied, by written evidence, that the housing will be connected to a reticulated water system and have adequate facilities for the removal or disposal of sewage.*

Reticulated water and sewer will be connected to the future Seniors Living development within the super lot.

Part 3 Design requirements

Division 1 General

30. Site analysis

- (1) *A consent authority must not consent to a development application made pursuant to this Chapter unless the consent authority is satisfied that the applicant has taken into account a site analysis prepared by the applicant in accordance with this clause.*

A comprehensive site analysis has been prepared to inform the preparation of this report. Further site analysis would be carried out during the design phase of the future Seniors Living development to be located within the 'super lot'.

- (2) *A site analysis must:*
- (a) *contain information about the site and its surrounds as described in subclauses (3) and (4), and*
 - (b) *be accompanied by a written statement (supported by plans including drawings of sections and elevations and, in the case of proposed development on land adjoining land zoned primarily for urban purposes, an aerial photograph of the site):*
 - (i) *explaining how the design of the proposed development has regard to the site analysis, and*
 - (ii) *explaining how the design of the proposed development has regard to the design principles set out in Division 2.*

A site analysis complying with these requirements will be prepared as part of the future design for a Seniors Living development within the 'super lot'.

- (3) *The following information about a site is to be identified in a site analysis:*

The matters listed as (a) to (n) under subclause (3) will be addressed during the analysis, design and documentation of the future Seniors Living development within the 'super lot'.

31. Design of in-fill self-care housing

In determining a development application made pursuant to this Chapter to carry out development for the purpose of in-fill self-care housing, a consent authority must take into consideration (in addition to any other matters that are required to be, or may be, taken into consideration) the provisions of the Seniors Living Policy: Urban Design Guideline for Infill Development published by the Department of Infrastructure, Planning and Natural Resources in March 2004.

The proposed 'super lot' is not identified as in-fill self-care housing. The proposed integrated retirement community will include *serviced self-care housing*.

32. Design of residential development

A consent authority must not consent to a development application made pursuant to this Chapter unless the consent authority is satisfied that the proposed development demonstrates that adequate regard has been given to the principles set out in Division 2.

See assessment below.

Division 2 Design principles

33. Neighbourhood amenity and streetscape

The proposed development should:

- (a) *recognise the desirable elements of the location's current character (or, in the case of precincts undergoing a transition, where described in local planning controls, the desired future character) so that new buildings contribute to the quality and identity of the area, and*

The proposed integrated retirement community has been conceptualised within the framework of the wider Pacific Pines community. It is fully integrated with the Pacific Pines neighbourhood and will share the benefits of the emerging village community, including access to central pond, Neighbourhood Centre, tavern, Arts Business Enterprise Centre, interconnected walkways and integration with future residents within the future residential precincts.

- (b) retain, complement and sensitively harmonise with any heritage conservation areas in the vicinity and any relevant heritage items that are identified in a local environmental plan, and*

Heritage database searches and an archaeological study were carried out as part of the Part 3A Concept Plan analysis and documentation. There are no heritage or archaeological constraints to development of the site or the surrounding area.

- (c) maintain reasonable neighbourhood amenity and appropriate residential character by:*
 - (i) providing building setbacks to reduce bulk and overshadowing, and*
 - (ii) using building form and siting that relates to the site's land form, and*
 - (iii) adopting building heights at the street frontage that are compatible in scale with adjacent development, and*
 - (iv) considering, where buildings are located on the boundary, the impact of the boundary walls on neighbours, and*
- (d) be designed so that the front building of the development is set back in sympathy with, but not necessarily the same as, the existing building line, and*
- (e) embody planting that is in sympathy with, but not necessarily the same as, other planting in the streetscape, and*
- (f) retain, wherever reasonable, major existing trees, and*
- (g) be designed so that no building is constructed in a riparian zone.*

The concept plan for the future retirement community has considered the matters listed above and will be consistent with these design requirements. The concept includes a wide range of dwelling choices from small cottages with verandahs and private gardens to spacious duplexes that overlook the parkway to multi-level apartments. All of the dwelling choices will be consistent with adaptable housing design criteria and the criteria listed under this SEPP.

34. Visual and acoustic privacy

The proposed development should consider the visual and acoustic privacy of neighbours in the vicinity and residents by:

- (a) appropriate site planning, the location and design of windows and balconies, the use of screening devices and landscaping, and*
- (b) ensuring acceptable noise levels in bedrooms of new dwellings by locating them away from driveways, parking areas and paths.*

The future Seniors Living development will be consistent with these criteria. The concept design for the site has considered these matters which will be further detailed under a future design for retirement living within the 'super lot'.

35. Solar access and design for climate

The proposed development should:

- (a) ensure adequate daylight to the main living areas of neighbours in the vicinity and residents and adequate sunlight to substantial areas of private open space, and*

- (b) involve site planning, dwelling design and landscaping that reduces energy use and makes the best practicable use of natural ventilation solar heating and lighting by locating the windows of living and dining areas in a northerly direction.*

The future Seniors Living development will be consistent with these criteria. The concept design for the site has considered these matters which will be further detailed under a future design for retirement living within the 'super lot'.

36. Stormwater

The proposed development should:

- (a) control and minimise the disturbance and impacts of stormwater runoff on adjoining properties and receiving waters by, for example, finishing driveway surfaces with semi-pervious material, minimising the width of paths and minimising paved areas, and*
- (b) include, where practical, on-site stormwater detention or re-use for second quality water uses.*

The Pacific Pines land is constrained by stormwater flows and drainage lines, however, the implementation of WSUD principles, building on the previous construction of the main pond, will ensure that potential for disturbance and impacts from stormwater runoff are minimised.

37. Crime prevention

The proposed development should provide personal property security for residents and visitors and encourage crime prevention by:

- (a) site planning that allows observation of the approaches to a dwelling entry from inside each dwelling and general observation of public areas, driveways and streets from a dwelling that adjoins any such area, driveway or street, and*
- (b) where shared entries are required, providing shared entries that serve a small number of dwellings and that are able to be locked, and*
- (c) providing dwellings designed to allow residents to see who approaches their dwellings without the need to open the front door.*

The future Seniors Living development will be consistent with these criteria. The concept design for the site has considered these matters which will be further detailed under a future design for retirement living within the 'super lot'.

38. Accessibility

The proposed development should:

- (a) have obvious and safe pedestrian links from the site that provide access to public transport services or local facilities, and*
- (b) provide attractive, yet safe, environments for pedestrians and motorists with convenient access and parking for residents and visitors.*

The Pacific Pines development has been designed to encourage walking and cycling through an interconnected street and pathway network. In addition, there are walkways through the parks and open space and several pedestrian links through to Lennox Meadows and to the existing housing to the south-east of the project site.

Existing sections of Hutley Drive and Montwood Drive and the streets within Pacific Pines will be traffic calmed with street trees, slow points and line-marking to reduce traffic speed and encourage passive forms of transport.

The gradients between the Seniors Living 'super lot' and the Neighbour Centre and generally flat and will provide easy access along level connecting paths. A bus stop will be located within the future retirement village.

39. Waste management

The proposed development should be provided with waste facilities that maximise recycling by the provision of appropriate facilities.

The future Seniors Living development will include sustainable waste management practices.

Part 4 Development standards to be complied with

Division 1 General

40. Development standards—minimum sizes and building height

(1) General

A consent authority must not consent to a development application made pursuant to this Chapter unless the proposed development complies with the standards specified in this clause.

(2) Site size

The size of the site must be at least 1,000 m².

The proposed 'super lot' exceeds 1,000 m², it is approximately 11.58 ha in area.

(3) Site frontage

The site frontage must be at least 20 m wide measured at the building line.

Site frontage of the 'super lot' exceeds 20 m.

(4) Height in zones where residential flat buildings are not permitted

If the development is proposed in a residential zone where residential flat buildings are not permitted:

(a) the height of all buildings in the proposed development must be 8 m or less, and

The site is zoned 2(b) Village under the Ballina Local Environmental Plan 1987 (BLEP 1987). Residential flat buildings are permitted with consent within the zone, therefore building height is not limited by this clause.

(b) a building that is adjacent to a boundary of the site (being the site, not only of that particular development, but also of any other associated development to which this Policy applies) must be not more than 2 storeys in height, and

Residential flat buildings are permitted within the zone, therefore this criteria does not apply.

(c) a building located in the rear 25 per cent area of the site must not exceed 1 storey in height.

Residential flat buildings are permitted within the zone, therefore this criteria does not apply.

Division 3 Hostels and self-contained dwellings — standards concerning accessibility and useability

41. Standards for hostels and self-contained dwellings

(1) A consent authority must not consent to a development application made pursuant to this Chapter to carry out development for the purpose of a hostel or self-contained dwelling unless the proposed development complies with the standards specified in Schedule 3 for such development.

The future integrated retirement community will be designed to comply with all of the criteria listed in Schedule 3. This will be a purpose designed and built project and will be designed to meet and exceed (where beneficial) current best practice standards for seniors living and aged care housing.

- (2) *Despite the provisions of clauses 2, 7, 8, 9, 10, 11, 12, 13 and 15–20 of Schedule 3, a self-contained dwelling, or part of such a dwelling, that is located above the ground floor in a multi-storey building does not have to comply with the requirements of those provisions if the development application is made by, or by a person jointly with, a social housing provider.*

It is unlikely that the development application will be made by a social housing provider, however, the future owner of the proposed 'super lot' may not be limited to the private sector.

Part 6 Development for vertical villages

45. Vertical villages

(1) Application of clause

This clause applies to land to which this Policy applies (other than the land referred to in clause 4 (9) (b)) on which development for the purposes of residential flat buildings is permitted.

Residential flat buildings are permitted on the land, therefore this clause applies.

(2) Granting of consent with bonus floor space

Subject to subclause (6), a consent authority may consent to a development application made pursuant to this Chapter to carry out development on land to which this clause applies for the purpose of seniors housing involving buildings having a density and scale (when expressed as a floor space ratio) that exceeds the floor space ratio (however expressed) permitted under another environmental planning instrument (other than State Environmental Planning Policy No 1—Development Standards) by a bonus of 0.5 added to the gross floor area component of that floor space ratio.

At this stage, it has not been determined whether the future Seniors Living development will rely on the offset / incentive provided under subclause (2).

- (3) *Subsection (2) applies even if the floor space ratio permitted under another environmental planning instrument is expressed in a development control plan.*
- (4) *In calculating the gross floor area for the purposes of subclause (2), the floor space used to deliver on-site support services (other than any floor space used to deliver communal or residents' living areas) is to be excluded.*
- (5) *However, if the area of the floor space referred to in subclause (4) is greater than 50 per cent of the gross floor area, then the area that may be excluded under subclause (4) is limited to an area that does not exceed 50 per cent of the gross floor area.*
- (6) *Requirements relating to affordable places and on-site support services*
A consent authority may only grant consent to a development application as referred to in subclause (2) if:
- (a) the consent authority is satisfied, on written evidence, that:*
 - (i) the proposed development will deliver on-site support services for its residents, and*
 - (ii) at least 10 per cent of the dwellings for the accommodation of residents in the proposed development will be affordable places, and*
 - (b) the applicant identifies, to the satisfaction of the consent authority, which of the dwellings for the accommodation of residents in the proposed development will be set aside as affordable places.*

An integrated retirement community is proposed within the 'super lot' that may or may not include areas set aside as affordable places. Therefore, it has not yet been determined whether the future Seniors Living development will rely on the offset / incentive provided under subclause (2).

Part 7 Development standards that cannot be used as grounds to refuse consent

Division 1 General

46. Inter-relationship of Part with design principles in Part 3

- (1) Nothing in this Part permits the granting of consent to a development application made pursuant to this Chapter if the consent authority is satisfied that the proposed development does not demonstrate that adequate regard has been given to the principles set out in Division 2 of Part 3.*
- (2) For the avoidance of doubt, nothing in this Part limits the matters to which the Director-General may have regard in refusing to issue a site compatibility certificate.*

The future integrated retirement community to be located within the proposed 'super lot' will be designed with regard to the principles set out in Division 2 of Part 3 of the SEPP.

47 Part does not apply to certain development applications relating to heritage affected land

Nothing in this Part applies in relation to the granting of consent to a development application made pursuant to this Chapter for the carrying out of development on land to which an interim heritage order or listing on the State Heritage Register under the Heritage Act 1977 applies.

An interim heritage order or listing on the State Heritage Register does not apply to the land.

Division 2 Residential care facilities

48. Standards that cannot be used to refuse development consent for residential care facilities

A consent authority must not refuse consent to a development application made pursuant to this Chapter for the carrying out of development for the purpose of a residential care facility on any of the following grounds:

- (a) building height: if all proposed buildings are 8 m or less in height (and regardless of any other standard specified by another environmental planning instrument limiting development to 2 storeys), or*

A three-storey height control is proposed for the western part of the 'super-lot'. This will result in buildings that are higher than 8 m. The clause above does not establish an 8 m height limit. It is not written to restrict buildings higher than 8 m. Rather, its intent is to ensure that, within areas where residential flat buildings are permissible, a consent authority cannot use height as the sole reason to refuse a development if the building has a height of 8 m or less. The clause does not restrict a consent authority from approving a building higher than 8 m if it believes that the proposal has merit.

- (b) density and scale: if the density and scale of the buildings when expressed as a floor space ratio is 1:1 or less,*
- (c) landscaped area: if a minimum of 25 m² of landscaped area per residential care facility bed is provided,*
- (d) parking for residents and visitors: if at least the following is provided:*
 - (i) 1 parking space for each 10 beds in the residential care facility (or 1 parking space for each 15 beds if the facility provides care only for persons with dementia), and*
 - (ii) 1 parking space for each 2 persons to be employed in connection with the development and on duty at any one time, and*
 - (iii) 1 parking space suitable for an ambulance.*

It is expected that residential care facilities within the future development within the 'super lot' will be designed to be consistent with these requirements.

Division 4 Self-contained dwellings

50. Standards that cannot be used to refuse development consent for self-contained dwellings

A consent authority must not refuse consent to a development application made pursuant to this Chapter for the carrying out of development for the purpose of a self-contained dwelling (including in-fill self-care housing and serviced self-care housing) on any of the following grounds:

- (a) building height: if all proposed buildings are 8 m or less in height (and regardless of any other standard specified by another environmental planning instrument limiting development to 2 storeys),*
- (b) density and scale: if the density and scale of the buildings when expressed as a floor space ratio is 0.5:1 or less,*
- (c) landscaped area: if:*
 - (i) in the case of a development application made by a social housing provider—a minimum 35 m² of landscaped area per dwelling is provided, or*
 - (ii) in any other case—a minimum of 30 per cent of the area of the site is to be landscaped,*
- (d) deep soil zones: if, in relation to that part of the site (being the site, not only of that particular development, but also of any other associated development to which this Policy applies) that is not built on, paved or otherwise sealed, there is soil of a sufficient depth to support the growth of trees and shrubs on an area of not less than 15 per cent of the area of the site (the deep soil zone). Two-thirds of the deep soil zone should preferably be located at the rear of the site and each area forming part of the zone should have a minimum dimension of 3 m,*
- (e) solar access: if living rooms and private open spaces for a minimum of 70 per cent of the dwellings of the development receive a minimum of 3 hours direct sunlight between 9am and 3pm in mid-winter,*
- (f) private open space for in-fill self-care housing: if:*
 - (i) in the case of a single storey dwelling or a dwelling that is located, wholly or in part, on the ground floor of a multi-storey building, not less than 15 m² of private open space per dwelling is provided and, of this open space, one area is not less than 3 m wide and 3 m long and is accessible from a living area located on the ground floor, and*
 - (ii) in the case of any other dwelling, there is a balcony with an area of not less than 10 m² (or 6 m² for a 1 bedroom dwelling), that is not less than 2 m in either length or depth and that is accessible from a living area,*
- (g) (Repealed)*
- (h) parking: if at least the following is provided:*
 - (i) 0.5 car spaces for each bedroom where the development application is made by a person other than a social housing provider, or*
 - (ii) 1 car space for each 5 dwellings where the development application is made by, or is made by a person jointly with, a social housing provider.*

At present, the development of an integrated retirement community is conceptual only. It is intended to create a 'super lot' that will be used for a Seniors Living development within the Pacific Pines community. The self-contained dwellings within the proposed retirement community will be designed to be consistent with these requirements.

Conclusion

In relation to height, the Seniors Living SEPP only establishes an absolute restriction where the proposal relates to land within which residential flat buildings are prohibited. That is not the case at Pacific Pines, where the existing 2(b) Village zone permits the erection of residential flat buildings.

Notwithstanding this, the Seniors Living SEPP is not a mandatory instrument. Instead, it permits such development which complies with the relevant provisions of the SEPP in circumstances where that development is not permissible under other applicable planning instruments.

IN the subject case, the Minister is requested to approve a Concept Plan that includes a set of detailed design guidelines (**Appendix F**). Future development of the site will need to be consistent with the Concept Plan and the design guidelines. Within this, the retirement community is clearly permissible, with detailed controls outlined. A future application for the development of the retirement community 'super lot' will therefore be assessed against the concept plan and design guidelines, rather than against the Seniors Living SEPP.

6.5 North Coast Regional Environmental Plan

The following provisions of the North Coast Regional Environmental Plan are relevant to a consideration of the subject project:

Clause 12 - Impact of development on agricultural activities

The council shall not consent to an application to carry out development on rural land unless it has first considered the likely impact of the proposed development on the use of adjoining or adjacent agricultural land and whether or not the development will cause a loss of prime crop or pasture land.

Clause 15 Wetlands or fishery habitats

The site is within the catchment of a nearby SEPP 14 wetland (see **Illustration 2.3**). The following matters are therefore relevant to a consideration of the proposed development:

(a) the need to maintain or improve the quality or quantity of flows of water to the wetland or habitat,

A small part of the mapped SEPP 14 Wetland (SEPP 14 Wetland No. 88) protrudes into the site, to the south-west of the approved Water Quality Control Pond. The development has been designed to ensure that there are no direct impacts on the SEPP 14 wetland. Further, stormwater management measures, building on the WQCP, have been design to ensure that there will be no significant indirect impacts on the wetland (see **Appendices H and I**).

(b) the need to conserve the existing amateur and commercial fisheries,

The proposed development has been designed to ensure no impacts on fish habitat.

(c) any loss of habitat which will or is likely to be caused by the carrying out of the development,

The proposed development will involve the embellishment of existing habitat. All identified areas of significant remnant native vegetation are retained, and provided with adequate buffers for their protection. In particular, the embellishment of the vegetation that currently exists in the north-eastern and south-eastern parts of the site, to create a vegetated open space strip right across the site, will provide for a wildlife corridor.

(d) whether an adequate public foreshore reserve is available and whether there is adequate public access to that reserve,

The protection of the local watercourse in the western part of the site will ensure that its foreshore areas remain protected in a vegetated state.

(e) whether the development would result in pollution of the wetland or estuary and any measures to eliminate pollution,

The stormwater management system has been designed to ensure that there is no net increase in stormwater pollutant loads or flows post development compared to pre development conditions. No adverse impacts on the SEPP 14 wetland area are therefore expected in terms of water flows or pollutants.

The proposed stormwater system is based on the principles of Water Sensitive Urban Design and includes bio-filtration and grassed swales for stormwater treatment, stormwater retention and infiltration in the open

space areas on the site, pollutant and litter traps, provision of a central water recycling system utilising rain water for non potable uses for the subdivision, and the provision of reticulated sewer to all dwellings (see **Appendices H and I**).

(f) the proximity of aquatic reserves dedicated under the Fisheries Management Act 1994 and the effect the development will have on these reserves,

No aquatic reserves are likely to be affected by the proposed development.

(g) whether the watercourse is an area of protected land as defined in section 21AB of the Soil Conservation Act 1938 and any measures to prevent soil erosion,

Not applicable in this instance.

(h) the need to ensure that native vegetation surrounding the wetland or fishery habitat area is conserved,

Native vegetation will be conserved and embellished as part of the proposed development. A network of parks and reserves will provide for the conservation of high value ecological land, including all of the land zoned 7(a) Environmental Protection – Wetlands. This network will connect into the adjoining wetlands of the Ballina Nature Reserve and North Creek.

(i) the recommendations of any environmental audit or water quality study prepared by the Department of Water Resources or the Environment Protection Authority and relating to the river, stream, wetland, area or catchment.

No such studies are known for the adjacent wetland.

Clause 32B Coastal Lands

In determining an application for consent to carry out development on such land, the Council must take into account:

- (a) the NSW Coastal Policy 1997;
- (b) the Coastline Management Manual; and
- (c) the North Coast: Design Guidelines.

The NSW Coastal Policy is addressed in detail in **Section 6.9** of this report. The provisions of the Coastline Management Manual are not directly relevant to the subject proposal, as it deals primarily with coastal processes in the active coastal zone. The North Coast Design Guidelines have been superseded by the Coastal Design Guidelines for NSW (UDAS, 2003), which have been used as the basis for the conceptual design of the project.

The proposed development will not impede access to any area of foreshore or impact on any beaches in the locality.

Clause 43 Residential Development

Council must not grant consent to development for residential purposes unless:

(a) it is satisfied that the density of the dwellings have been maximised without adversely affecting the environmental features of the land,

The development has been designed taking into consideration the various constraints of the site. Slope and other environmental constraints limit the achievable density. However, the design has maximised density in the less constrained areas by locating the proposed retirement community and medium density housing on the flatter areas. The development is likely to yield a total of around 830 dwellings, providing a density of approximately 10.5 dwellings per hectare. It should be noted that this would be greater except for the Neighbourhood Centre, WQCP and Sporting Facilities.

Building height is proposed at 3 storeys for key site buildings, as a way to increase density in the 'village core', which is located within the least constrained part of the site.

The layout has been prepared in accordance with the Coastal Design Guidelines for NSW (UDAS, 2003), which promote development that protects and responds to the environmental features of a site and its locality.

(b) it is satisfied that the proposed road widths are not excessive for the function of the road,

In terms of road width, there are a variety of road types and treatments proposed, as described in the Concept Plan (see **Appendix H** for details). Pavement or carriageway widths have been reduced to provide more permeable areas and slower travel speeds. Pavements will vary from 6 m wide to 13 m wide, depending on the street type and location. By constructing narrower carriageways for lower priority roads, especially in short street situations, a better community neighbourhood feel is provided for the residents. The proposed road widths do not comply fully with the Ballina Shire Council Subdivision Code. However, Ardill Payne & Partners indicates that the proposed roads comply with AMCORD requirements and have sufficient capacity to service the proposed development.

(c) it is satisfied that, where development involves the long term residential use of caravan parks, the normal criteria for the location of dwellings such as access to services and physical suitability of land have been met,

Not applicable.

(d) it is satisfied that the road network has been designed so as to encourage the use of public transport and minimise the use of private motor vehicles, and

An interconnected street network has been designed to facilitate future bus routes and walking / cycling. Walkways have been planned through the parks and open space with several pedestrian links through to Lennox Meadows and to the existing housing to the south-east.

Connections to the existing pathway network will provide residents with easy access to local schools, shops, sporting grounds and to the Lennox Head Village Centre, headland (The Point) and Seven Mile Beach. Bus connections will be provided along Hutley Drive (from the north) to Main Street, then run through the retirement community and up Montwood Drive. Bus stop locations have been identified, so that most of the community is within a five minute walk of a bus stop.

(e) it is satisfied that site erosion will be minimised in accordance with sedimentation and erosion management plans.

The erosion and sedimentation control plan prepared for the site by Ardill Payne & Partners, indicates that erosion can be minimised via the implementation of a range of control devices including limitations on the extent of soil exposed at any one time, diversion drains, settlement ponds and respreading of topsoil and seeding at the earliest opportunity following completion of earthworks (see **Appendices H and I**).

Clause 66 Adequacy of community and welfare services

Before granting consent to a development application for the subdivision of land intended for residential or rural residential purposes, the council shall consider the adequacy of community and welfare services available to the land and take into account the results of that consideration.

A range of community facilities and welfare services are located within reasonable distance of the site. Primary schools are located within the Lennox Village and at Skennars Head, a short distance to the south. Secondary schools are located in East Ballina and at Skennars Head. Health services are available in both Ballina and Lennox Head.

Sporting fields are located at East Ballina, Ballina, Skennars Head and Lennox Head, with a range of other recreational facilities also available in the area. Sporting fields, community centre, child care centre, arts and business enterprise centre and a commercial centre will all be developed as part of the Pacific Pines development. Other community facilities such as halls, child care services, libraries etc are also located within the East Ballina, Ballina and Lennox Head areas.

Clause 82 Sporting fields or specialised recreation facilities

The council shall not grant consent to the development of sporting fields or other specialised recreational facilities unless it has considered the need for access by the community to the facilities and included relevant conditions in its approval to achieve an acceptable level of public access.

During the EBD workshop, the community identified the recreational facilities that were required to meet the needs of the Pacific Pines and surrounding community. The following items were identified and are being pursued by way of a separate approval process:

- lighting to main sports field;
- turf wicket to main sports field;
- convert tennis courts to allow netball as well;
- construct amenities block with expanded area for equipment and maintenance gear, with slab roof suited to adding an upper storey; and
- pedestrian link from Montwood Drive to sports fields.

6.6 Ballina Local Environmental Plan 1987

The land is predominantly zoned 2(b) Village Zone, with a small section of land zoned 7(a) Environment Protection – Wetland Zone and a small section zoned 8(a) National Parks and Nature Reserves (refer to **Illustration 6.2**). Both the 7(a) and 8(a) areas are located in the extreme western part of the site, west of the existing pond. No development is proposed within either zone.

Residential lots, commercial / retail development and aged care facilities, and the associated infrastructure proposed, are all permissible within the 2(b) Village Zone with consent.

The objectives of the 2(b) Village zone are:

- A. *The primary objectives are:*
- a) *to regulate the subdivision and use of land to permit a wide range of urban purposes; and*
 - b) *to allow detailed provisions to be made, by means of a development control plan, to set aside specific areas within the zone for various housing densities, commercial and special uses and other urban and tourist facility purposes.*
- B. *The secondary objectives are to allow a variety of housing types and designs and to encourage greater visual amenity by encouraging site landscaping.*
- C. *The exception to these objectives is to permit development of land within the zone for public works and services, outside the parameters specified in the primary objectives.*

The proposed development of the site, primarily involving a residential subdivision of the land, is consistent with the objectives of the 2(b) zone. The Ballina Shire Combined Development Control Plan, Chapter 1 Urban Land, applies to the land and is assessed in detail below in **Section 6.8**.

Special Provisions Applicable: The following provisions of the Ballina LEP 1987 are applicable to the development of the site:

Clause 10 Subdivision generally:

A person shall not subdivide land to which this plan applies except with the consent of the council.

The Project Application is applying for approval of the Stage one subdivision. The remainder of the subdivision will be applied for in stages following adoption of the Concept Plan.

Clause 11 Subdivision within Zone No. 7(a):

The Concept Plan includes a section of the site that is zoned 7(a). There is no physical development proposed within this 7(a) area. However, a new lot containing this area will need to be created as part of the overall development. Pursuant to part (2)(b) of this clause, the minimum area for subdivision within the 7(a) zone is 40 ha. The lot containing the 7(a) zoned land will have substantially less area than this however, the subdivision will not separate or diminish the area of land zoned 7(a) or 8(a).

Clause 17 Limitation on Building Height:

This clause defines building height and specifies a building height limit throughout the Shire and has the effect of limiting building height to 6.4 m and/or two storeys. The Project Plan Application proposes no actual development that would exceed this height limit. However, the Neighbourhood Centre will include buildings proposed as three storey and would accordingly exceed this development standard. This matter is dealt with further in **Section 4.14**, which justifies departure from this standard and contains a range of design and development controls which have been developed to cover the future development of this site.

Pursuant to Section 75J(3) of the *Environmental Planning and Assessment Act, 1979*, the Minister is not bound by this (or other) environmental planning instruments.

Clause 36 Development on land identified on Acid Sulfate Soils Planning Maps:

The Acid Sulfate Soils Planning Maps indicate that the lower western part of the site contains Class 2 and Class 5 land (see **Illustration 6.3**). Pursuant to the table in clause 36(1), works below ground and / or works by which the water table is likely to be lowered require the consent of Council.

Gilbert and Sutherland undertook an acid sulphate soils assessment in March 2004 as part of the Development Application to construct the WQCP. Ardill Payne and Partners have reviewed the assessment made by Gilbert and Sutherland and its relevance to this application for a Concept Plan. Ardill Payne & Partners have consequently concluded that site excavation works are not likely to occur within the PASS soil profile (see **Appendix H** and **I**). PASS are dealt with in further detail in **Section 8.4** of this report.

Model Provisions Considerations:

The following Model Provisions, as adopted at clause 6 of the *Ballina Local Environmental Plan 1987*, are applicable to the subject development:

Model Provisions Clause 5(1):

The consent authority shall, in respect of an application under the Act for its consent or approval in relation to the development of land within view of any waterway or adjacent to any main or arterial road, railway, public reserve or land zoned as open space, take into consideration the probable aesthetic appearance of the proposed building or work or that land when used for that proposed purpose when viewed from that waterway, main or arterial road, railway, public reserve or land zoned for open space.

The site is adjacent to a public reserve (Lot 216), which was dedicated to Council as part of previous stages of the Pacific Pines development. Parts of the Concept Plan area are also able to be viewed from Seven Mile Beach, albeit from some considerable distance, and from a number of vacant public reserves in the nearby residential areas.

The site currently presents as 'green space' and open paddock when viewed from these areas. The proposed development will alter this existing character to create a more urban landscape, consistent with the land adjoining to the north and south.

The development has been designed to be compatible with the form of the existing landscape rather than proposing large scale modification to it by way of significant earthworks. Further, significant landscape embellishment is proposed and the development will be consistent with the form and structure of urban

development surrounding the site. It will therefore not be visually obtrusive when viewed from any public places. A more detailed visual assessment is contained in **Appendix K**.

Model Provisions Clause 5(2):

The consent authority shall, in respect to an application under the Act for its consent or approval to development for the purposes of commercial premises, shop, residential flat building, hotel, motel, service station, car repair station, place of assembly, industrial premises or caravan park or to the carrying out of any other development likely to cause increased vehicular traffic on any road in the vicinity of that development, take into consideration –

- a) whether adequate vehicular exits from and entrances to the sites have been provided so that vehicles using those exits and entrances will not endanger persons using those roads;*
- b) the provision of space on the site or on land adjoining the site, other than a public road, for the parking or standing of such number of vehicles as the council may determine;*
- c) not adopted by Ballina Local Environmental Plan 1987; and*
- d) whether adequate space has been provided within the site of the building or development for the loading, unloading and fuelling of vehicles and for the picking up and setting down of passengers.*

Access and egress points to and from the site are primarily limited to points previously planned for in the design of adjacent subdivisions. This matter is dealt with further in the Traffic Plan prepared by Ardill Payne and Partners (see **Appendix H**).

Vehicular parking and service areas can be provided within individual lots at rates appropriate to the land use proposed. Further, on-street parking is proposed adjacent to the proposed Neighbourhood Commercial and Community Centre, in addition to the normal on-site requirements.

Model Provisions Clause 30:

The consent authority shall not grant its consent to the carrying out of any development on any land unless -

- a) a water supply and facilities for the removal or disposal of sewage and drainage are available to that land; or*
- b) arrangements satisfactory to it have been made for the provision of that supply and those facilities.*

Ardill Payne and Partners have carried out investigation in regard to service provision of the site (see **Appendices H and I**). Electricity and telecommunication services are readily available to the site. Water and sewer infrastructure is available and adequate for Stage 1 of the subdivision but will require augmentation to complete the whole of the Concept Plan. Ballina Shire Council has provided for this augmentation through their Development Servicing Plan (DSP). Staging of the augmentation is currently being determined by way of an update of the DSP.

6.7 Development Control Plans

The following Development Control Plans apply to the development:

6.7.1 Ballina Shire Combined Development Control Plan

In response to recent State Government Planning reforms, Ballina Shire Council has amalgamated all of its former DCPs (other than its DCP for Exempt and Complying Development) into a single document titled the Ballina Shire Combined Development Control Plan (the Combined DCP).

Illustration 6.2 Zoning



Illustration 6.3 Acid Sulfate Soils



The subject site is located in the P1 Planned Urban Development Control Plan area pursuant to the provisions of the Combined DCP. The objective of this control plan area is to encourage the development of comprehensively planned new urban areas that may incorporate a variety of housing forms and other non-residential activities and that would complement the amenity of the future residential neighbourhood. The Combined DCP states that development standards that relate to this particular control plan area will be determined after a full site analysis for the total land area and in consultation with Council. Council prefers to consider development sites as a whole. No general development standards apply to this land if the owner / developer submits an overall site analysis and integrated development concept for Council consideration.

The Combined DCP refers to the SEPP No. 71 Master Plan for the site, approved in 2006. Pursuant to item 95 within Schedule 6 of the Act (relating to the *Environmental Planning and Assessment Amendment (Infrastructure and Other Planning Reforms) Act 2005*), the adopted Master Plan is deemed to be a DCP for the purposes of the Act.

Illustration 6.1 shows the development layout outlined in the Master Plan. While the current proposal is different (see **Illustration C1**), it is generally consistent with the Master Plan in that it provides for a residential community planned around a central neighbourhood centre. The Master Plan suggested a total yield of approximately 580 lots. The current proposal applies to a smaller area of the land, and provides around 481 residential lots.

The previously adopted Master Plan did not contain design guidelines or details of development controls to be applied to the development. It was silent, for example, on matters associated with building height and setbacks.

The key difference is the inclusion within the current proposal of an Integrated Retirement Community. While such a facility was not considered within the adopted Master Plan, it is one that fits well within the village approach of the development. It also provides for a very real demand in the local area, and a demand that will grow significantly with the aging population of the area.

Although there are no specific development standards contained within the Combined DCP that apply to the site, the design of the site has had consideration to the provisions of that Plan.

There are, however, a number of provisions contained in the Combined DCP that will potentially frustrate sustainable development opportunities for the site and also have the potential to frustrate quality urban design outcomes. These specific controls are discussed below, with justification provided for the proposed departure. Alternative controls have also been prepared and are recommended to be adopted as part of this Concept Plan. These are provided in the Structure Plan section of this report (see **Section 4.14**).

6.7.2 Part 4 Policy Statements

Policy Statement No.1 – Multiple Dwellings

Concept Plan

The Concept Plan proposes a number of locations where medium density housing will be provided. It is not proposed to construct any buildings within these areas as part of this Concept Plan or Project Plan Application. Rather, separate approvals will be sought for all built development. A range of design and development controls have been developed to cover the future development of this site. These controls are contained in **Section 4** of this report.

Project Application

No Multiple Dwellings are proposed as part of the Project application.

Policy Statement No.2 – Car Parking and Access

Concept Plan

Car Parking will generally be provided in accordance with the requirements of Policy Statement 2 – Car Parking and Access. However, calculations of parking requirements for the future neighbourhood centre should include flexibility to account for the mixed-use nature of the centre. This will be provided for both dual use and complimentary use of parking spaces, where people park and visit a variety of individual places within the centre. Together with the provision of on-street parking within both Hutley Drive and Main Street, it is considered that this flexibility could account for a reduction of around 30 per cent of the parking requirements calculated by a strict interpretation of the DCP.

Project Application

No car parking is proposed as part of the Project application.

Policy Statement No.3 – Urban Building Lines

Concept Application

Policy Statement No. 3 requires buildings in Lennox Head to have the following setbacks from street frontages:

- Lennox Head (Except where otherwise stated) - 6.0 m;
- Lennox Head Lanes (Except where otherwise stated) - 3.5 m; and
- Pacific Pines (DA 1989/88, 91/189, 99/248 etc) - 6.0 m.

The Concept Plan proposes that a range of setbacks across various precincts, to allow for an overall increase in density and to maximise the effective use of suitable land. This matter is further discussed in **Section 4.14** of this report.

Project Application

No buildings are proposed as part of the Project Application.

Policy Statement No.4 – Urban Subdivision

Concept Application

This Policy Statement requires allotments created for residential development to generally have the following minimum areas:

- 600 m² with a minimum frontage of 18 m;
- Irregular Shaped Allotments (or fan-shaped) as occur at the end of cul-de-sacs are to be at least 15 m wide, measured at the front building line for standard depth blocks. For lots of greater than standard depth, the absolute minimum road frontage is to be 4 m and a minimum lot width of 15 m is to be provided 20 m from the front boundary;
- Hatchet shaped allotments are generally not desirable. Acceptable situations for battleaxe allotments may occur when:
 - the allotment fronts a public reserve area or waterway; and
 - the level of the land is such that the rear allotment is sufficiently above the front allotment to permit an attractive outlook;
- The minimum area of a battleaxe lot is 800 m², excluding the access handle, which is to be a minimum of 3.6 m wide and to extend no further than 45 m from the road alignment; and
- Multiple battleaxe lots will be allowed only when:
 - access ways, paved to Council's specification, are provided over the battleaxe handles;
 - Council is satisfied that access cannot be reasonably provided with the construction and dedication of a public road by the subdivider; and
 - the lots comply with the requirements above.

The Pacific Pines Concept Plan provides for a number of lots ranging in size from 500 m² to approximately 2000 m², with the majority of lots being between 600 m² to 800 m². The variation is considered to be justified in this case, because it will:

- provide greater variation in lot size;
- provide a greater range of land affordability and housing choice;
- design for the most efficient use of the site;
- cater for the slope and other constraints of the land;
- allow for a greater density around the Neighbourhood Centre and on the flatter sections of the site; and
- encourage greater variation in housing design and type.

This matter is further discussed in **Section 4.14** of this report.

Project Application

The Project Application proposes the creation of a total of 58 lots. These include 6 super lots, which will be later developed for a Neighbourhood Centre, a retirement community and a medium density residential project. Stage 1 also includes 49 conventional residential allotments and 3 open space 'park' lots. The residential lots range in size from 510 m² to 1010 m². Most lots are generally around 600 m² to 750 m². These lot sizes comply with the proposed development controls contained in **Section 4** of this report.

Policy Statement No.11 – Flood Levels

This policy statement details general development standards applicable to local flooding. Ardill Payne and Partners have provided a flood assessment in relation to the site. This flood assessment is part of the engineering report prepared by Ardill Payne and is attached as **Appendix H**. The report reviews a number of flood studies that involve the subject site and makes an assessment as to appropriate flood levels, including consideration of impacts associated with climate change and sea level rise.

Policy Statement No.12 – Heritage Matters

This policy statement details Council's requirements with respect to items of environmental heritage in the shire. A comprehensive cultural heritage assessment of the Pacific Pines Estate has been carried out by Everick Heritage Consultants Pty Ltd. (See **Appendix J**). This investigation found there were no sites of cultural heritage located within the site. This matter is dealt with in more detail in **Section 8.9** of this report.

Chapter No. 11 – Mosquito Management

This chapter of the Combined DCP outlines Council's requirements for assessing and mitigating mosquito risk to potential developments. Mosquito Consulting Services Pty Ltd has undertaken a Mosquito Impact Assessment of the proposed development. The assessment addresses the potential impacts of nearby known and suspected mosquito breeding areas for future residents of the development and includes consideration of relevant sections of Ballina Shire Council's combined DCP. The mosquito assessment report is contained as **Appendix L** and is discussed in **Section 8.16** of this report.

Chapter No. 13 – Stormwater Management

This chapter of the Combined DCP outlines Council's requirements in the regard to capturing and treatment of Stormwater from proposed developments. Ardill Payne and Partners have prepared a comprehensive Integrated Water Cycle Management Plan that addresses the requirements of this Chapter (see **Appendices H and I**). The proposed stormwater management measures are discussed further in **Section 8.3** of this report.

6.8 State Policies

6.8.1 NSW Coastal Policy

Provisions of the NSW Coastal Policy are addressed below in Table 6.2

Table 6.2 Coastal Policy Matters for Consideration

Strategic Action Number	Summary Provisions
Goal: Natural Environment	
Objective: To identify coastal lands and aquatic environments with conservation values and devise and implement acquisition policies, management strategies and controls to ensure that those values are protected.	
1.1.6	Voluntary conservation agreements <i>No voluntary conservation agreements are known to have been negotiated for or apply to the subject land. A Vegetation Management Plan will be prepared to guide management of the conservation and rehabilitation areas.</i>
1.1.7	Seagrass, mangroves, saltmarsh and other wetland associated species <i>SEPP 14 No. 88 is located to the immediate south-west of the subject site and extends from Ross Lane in the north to Cumbalum in the south. It covers 665 ha and contains mangroves, swamp sclerophyll forest and saltmarsh. SEPP 14 No. 87 also occurs approximately 2 km to the north of the subject site. Soil erosion and sedimentation control plans will be prepared to prevent adverse impacts during construction. Stormwater and wastewater reuse will be managed to prevent any adverse impacts upon water quality or flow entering the wetland from the site across the surface and to groundwater through a comprehensive Stormwater Quality Control Plan. Weed removal and environmental rehabilitation works are also proposed along riparian corridors within the site.</i>
1.1.9	Local Environmental Plans <i>The proposed development is consistent with provisions in the Ballina Local Environmental Plan 1987 in relation to coastal issues. The proposal is not located within the Lennox Head Coastal Erosion area as identified within the BLEP 1987.</i>
Objective: To conserve the diversity of all native plant and animal species and to protect and assist the recovery of threatened and endangered species.	
1.2.1	Distribution, diversity and condition of native plants, animal habitats and natural environments <i>Vegetation within the study area is highly fragmented and somewhat degraded in areas. However, a number of threatened species and endangered ecological communities occur within the site and are therefore highly significant. As a result, proposed buffers have been placed around the vegetation communities in order to protect them from possible impacts as a result of the proposed development. It is not expected that the conservation significance will be compromised by the proposed works. It is also proposed that areas of significant ecological value are to be rehabilitated.</i>
1.2.5	Threatened Species Conservation Act <i>A comprehensive ecological assessment and associated 7 part tests have been prepared and are attached as Appendix B. Threatened species are discussed in more detail in Section 8.1 of this report.</i>
Objective: To improve water quality in coastal and estuarine waters and coastal rivers where it is currently unsatisfactory and to maintain water quality where it is satisfactory.	
1.3.2	Non-point source pollution <i>Water cycle management measures are proposed to ensure that post development stormwater pollutant loads do not exceed pre development pollutant loads.</i>
1.3.7	Wastewater discharge limits <i>The proposed development will be connected to the town reticulated sewer network and is within the capacity of the sewerage system.</i>
1.3.8	Contaminated stormwater <i>Watercycle management measures are proposed to ensure that post development stormwater pollutant loads do not exceed pre development pollutant loads.</i>

<i>Strategic Action Number</i>	<i>Summary Provisions</i>
1.3.13	Re-use of treated biosolids and effluent <i>The proposed development will be connected to the existing Sewage Treatment Plant. The application proposes use of recycled treated effluent from Ballina Shire Council's sewerage treatment system for external irrigation and toilet flushing as per Council policy.</i>
Objective: To manage the coastline and estuarine environments in the public interest to ensure their health and vitality.	
1.4.5	Assessment of coastline development proposals <i>The subject is located in the Coastal Protection Zone although is located well away from the Coastline.</i>
1.4.7	Assessment of estuarine development proposals <i>Various measures have been incorporated within the design that will assist in the protection and embellishment of the adjoining wetlands.</i>
Goal: Natural Processes and Climate Change	
Objective: To give the impacts of natural processes and hazards a high priority in the planning and management of coastal areas.	
2.1.3	Physical and ecological processes to be considered when assessing development applications <i>The comprehensive ecological assessment and associated 7 part tests (Appendix B) have assessed physical and ecological processes</i>
2.1.4	Acid sulfate soils – environmental studies, DLWC mapping and EPA guidelines; requirement for EIS; monitoring and restoration works; management plans <i>The ASS assessment prepared by Ardill Payne and Partners indicates that the site has ASS located in the lower areas of the site. This area is to be filled to a depth where it is unlikely that the development will disturb ASS. A Management Plan for ASS has been prepared by Ardill Payne in case any PASS is encountered (see Appendix H).</i>
Goal: Aesthetic Qualities	
Objective: To design and locate development to complement the surrounding environment and to recognise good aesthetic qualities.	
3.2.1	Coastal Design Guidelines and Guidelines for Tourism Development along the NSW Coast <i>The proposed development is consistent with the provisions of the North Coast Design guidelines.</i>
3.2.4	Design and locational principles for development applications <i>The proposed development does not compromise the natural and cultural values of the area.</i>
Goal: Cultural Heritage	
Objective: To recognise the rights and needs of indigenous people and to ensure inputs by Aboriginal communities prior to making decisions affecting indigenous communities.	
4.2.3	Coastal sites of Aboriginal heritage significance <i>A Cultural Heritage Assessment has found that the site has been highly disturbed and is unlikely to contain sites of Aboriginal heritage significance (see Appendix J).</i>
Goal: Ecologically Sustainable Use of Resources	
Objective: To develop land use and management plans which ensure the sustainable development and use of resources.	
5.2.3	Management plans prepared for coastal areas will be considered in the preparation of REPs, LEPs and DCPs. <i>A Vegetation Management Plan will guide the ongoing management of the conservation and rehabilitation areas.</i>
Objective: To develop and implement “best practice” approaches to achieving sustainable resource management.	
5.3.1	Sustainable land and water management practices. <i>The Concept Plan has proposed an innovative high quality community that incorporates the latest technology in stormwater disposal and sustainable urban design.</i>

Strategic Action Number	Summary Provisions
Goal: Ecologically Sustainable Human Settlement	
Objective: To ensure that future expansion or redevelopment of urban and residential areas, including the provision of infrastructure, avoids or minimises impacts on environmentally sensitive areas and cultural heritage.	
6.1.2	Urban Land Release/Settlement Strategies. <i>The land is Zoned 2(b) Village, is identified for Planned Urban Development in Council's Combined DCP and the Concept Plan is consistent with the Lennox Head Community Aspirations Plan and the Far North Coast Regional Strategy.</i>
Objective: To promote compact and contained planned urban development in order to avoid ribbon development, unrelated cluster developments and continuous urban areas on the coast.	
6.2.1	Planning instruments and DCPs to define boundaries. <i>This Concept plan will replace the existing approved SEPP 71 Masterplan. It is considered that the proposed Concept Plan improves on various aspects of the master plan by capitalising on the environmental features of the site and design around the constraints.</i>
Objective: To provide for choice in both housing and lifestyles.	
6.4.2	Higher density development in coastal town centres to be encouraged. <i>The Concept Plan proposes a wide range of housing types from retirement living in a medium density housing environment to small lot affordable housing to larger traditional residential lots. This mix will minimise the footprint of the development whilst providing a range of housing options for the community.</i>

6.8.2 Coastal Design Guidelines for NSW

The Coastal Design Guidelines for NSW, (UDAS, 2003), provide a clear set of design principles for development within the coastal zone. They establish a framework for a place-based master planning approach, which has been adopted for the urban design of the development concept for the site. Some of the key guidelines include:

- respect the ecological limits of the site and its context;
- build in a strong public domain;
- avoid areas of ecological value and respect setbacks to natural areas;
- provide a street pattern that reflects the character of existing coastal villages, responding to landform and permitting a high level of permeability; and
- provide a development that supports a range of housing types, which integrates into the street pattern and the location of functions throughout the settlement.

These principles have strongly influenced the design of the development outlined in this report. Accordingly, the concept plan proposes high quality built form outcomes which reflect, preserve and enhance the unique coastal character of Lennox Head.

A more detailed consideration of the Coastal Design Guidelines for NSW is addressed below in **Table 6.3**.

Table 6.3 Coastal Design Guidelines Matters for Consideration

<i>New Settlements</i>
<p>Respect the ecological limits of the site and its context.</p> <p><i>The development has been planned and designed in response to an analysis of key biophysical attributes including flora and fauna, hydrology and soils. All areas of environmental significance will be retained. .</i></p>
<p>Are developed with careful consideration for landform and views from public areas.</p> <p><i>The subject site is a residue parcel of the Pacific Pines Residential Estate. The proposed new community has been designed to retain areas of high ecological value. The proposed layout acknowledges the natural topography of the site and allows good opportunities for visual access to the remaining conservation areas. Views to the site from public areas will be significantly altered if the proposal is approved. This alteration will be the result of the creation of a more urban landscape which will be consistent with the land adjoining to the north and south. The development has been designed to be compatible with the form of the existing landscape rather than proposing large scale modification to it by way of significant earthworks. Further, significant landscape embellishment is proposed and the development will be consistent with the form and structure of urban development surrounding the site. It is not considered that the proposal will result in a development that will be visually obtrusive when viewed from public areas.</i></p>
<p>Provide alternative transport option from private car use.</p> <p><i>The community will be served by buses that will have routes through Hutley Drive (from the North) to Main Street, then through the retirement community and up Montwood Drive. Bus Stop Locations have been identified and will be located so that most of the community is within a five minute walk of a bus stop. The interconnected street system provides an effective footpath / bicycle network. In addition to this, a bicycle and pedestrian network will be provided to link the residential areas with the neighbourhood centre, sporting fields, community centre, opens space areas and other pedestrian destinations. Several bicycle and pedestrian links will also be provided through to Lennox Meadows and to the existing housing to the south east of the subject site.</i></p>
<p>Have a public domain.</p> <p><i>A number of public domains are proposed to be provided. These include a neighbourhood centre, sporting fields, community centre and various passive opens space areas including a lake parks and walkways.</i></p>
<p><i>Part of the key to the success of new settlements is the way the public domain relates to the geographical location and topography. The components of the public domain include:</i></p>
<p>A pattern of development on the unique natural, urban, historic visual and environmental features of the location.</p> <p><i>The pattern of development preserves and embellishes significant habitat and integrates with the surrounding settlement pattern.</i></p>
<p>Reserves for nature conservation and flood process.</p> <p><i>All areas of identified ecological significance are to be retained, embellished and protected. Flood areas are also identified and have been excluded from development.</i></p>
<p>Open space and public places for the recreation and social needs of residents and visitors.</p> <p><i>Sporting and Recreation Facilities for the site are currently being constructed as part of a separate approval. These facilities are proposed to be added to and improved upon as part of commitments given in the EBD process.</i></p>
<p>An interconnected street pattern providing long-term access and social and economic opportunities for the settlement.</p> <p><i>The street system has been designed to provide a high level of connectivity and permeability.</i></p>
<p>Areas for total water cycle management.</p> <p><i>Stormwater will be treated and detained within the site by a variety of management measures including garden infiltration, water tanks, street swales, and bioretention pits. Water cycle management measures are proposed to ensure that post development stormwater pollutant loads do not exceed pre development pollutant loads (see Appendices H and I).</i></p>

Relationship to the environment
<p>New development avoids areas of ecological value and respects setbacks between natural areas. <i>No development is proposed within sections of the site that have significant ecological habitat. Appropriate setbacks and buffer zones have determined the lot layout and design.</i></p>
<p>Wildlife corridors, existing mature trees, rivers, streams, lakes and natural features are incorporated into green space networks reserve areas, riverine and foreshore corridors. <i>Areas of significant habitat and natural features have been maintained along with adequate buffer zones to provide protection from potential impacts caused by the proposed development.</i></p>
<p>Aboriginal and European places, relics and items are protected. <i>A cultural heritage assessment has been undertaken for the site by Everick Heritage Consultants Pty Ltd. An archaeological assessment was also conducted over the subject land with the assistance of the Jali Local Aboriginal Land Council (LALC) in 2003 by Adrain Piper Heritage Consultants. No archaeological sites were found in the 2003 investigations and recommendations were formulated with the assistance Jali LALC for the preservation of various attributes of the site and also that initial excavations be monitored by representatives of the Jali LALC. The report by Everick Heritage Consultants Pty Ltd provided a desktop review including a review of previous archaeological reports over the site and the North Creek and Lennox Head areas and a review of the DECC, AHIMS register. The review found there were no additional reports of sites registered with information that would alter the findings of the 2003 report (see Appendix J).</i></p>
<p>Foreshore and estuarine vegetation is protected. <i>No works are proposed that will create impacts to any foreshore areas or estuarine vegetation.</i></p>
<p>The potential disturbance to acid sulfate soils is managed. <i>A preliminary assessment indicates that acid sulfate soils exist on the site but are unlikely to be disturbed due to filling of the lower areas of the site. A Management Plan has been prepared by Ardill Payne and Partners (see Appendix H) which identifies procedures in the event that ASS are disturbed.</i></p>
<p>Original native landscape is maintained and reinstated. <i>Areas of coastal rainforest and other significant vegetation will be retained and rehabilitated providing increased flora and fauna connectivity and improving the aesthetic value of the development area.</i></p>
<p>Waterways and coastal lakes are protected through water sensitive urban design and total cycle water management. <i>A comprehensive integrated water cycle management system is proposed for the site that includes an extensive range of WSUD measures for water saving, capture, treatment, reuse and disposal.</i></p>
<p>Degraded natural areas are rehabilitated. <i>Areas of coastal rainforest and other significant vegetation will be retained and rehabilitated providing increased flora and fauna connectivity and improving the aesthetic value of the development area.</i></p>
<p>Vegetation is maintained whilst managing asset protection areas for bushfire protection. <i>Adequate and appropriate bushfire hazard protection measures are available, and can be implemented on the site, to facilitate the proposed development without need for removal any ecologically significant vegetation.</i></p>
<p>Land swaps, community stewardship programs, transferable development rights and voluntary conservation agreements provide opportunities to sensitively locate development and protect ecosystems and views. <i>No requirement for "land swaps" or other agreements are necessitated by this development. It is likely that the conservation areas will be managed under the guidance of a Vegetation Management Plan.</i></p>
<p>Native vegetation is preferred on public and private land. <i>Street landscaping will consist of natural vegetation. Indigenous species will be used to revegetate the ecological enhancement areas.</i></p>
<p>Land is revegetated with species native to the local area. <i>Ecological rehabilitation and urban landscaping will utilise native species including those endemic to the area.</i></p>
Visual Sensitivity
<p>Views to and along the foreshore align with streets.</p>

<i>Only distant views in limited areas of the foreshore are available from the site due to distance and intervening landform and vegetation.</i>
Views and vistas of the foreshore and natural features in or surrounding the site are aligned with public streets. <i>Only distant views in limited areas of the foreshore are available from the site due to distance and intervening landform and vegetation.</i>
Edges to the water and natural areas
In new coastal settlements the centre and surrounding residential areas are separated from the foreshore by a parkland or roadway or natural reserve. <i>The site is not adjacent to the foreshore, however, the design of the development includes the use of open space covenants restricting development and roadways to separate residential and other proposed uses lots from the adjoining bushland.</i>
Setbacks from the coastal edge and other surrounding natural areas, such as reserves and lakes, respect environmental constraints and protect properties from coastal hazards. <i>The site is not adjacent to the foreshore but does adjoin a SEPP 14 Coastal Wetland and SEPP 26 Littoral Rainforest and other ecological significant areas. These areas will not be developed and will be protected by the conservation areas open space areas and covenants.</i>
Public access along the foreshore is generally located on the boundary between public and private land and along streets. <i>The site is not adjacent to the foreshore.</i>
Pathways through foreshore vegetation are restricted to ensure the ecological integrity is not degraded. <i>The site is not adjacent to the foreshore.</i>
Foreshore vegetation is not removed to create views. <i>The site is not adjacent to the foreshore.</i>
Land is not filled to promote views. <i>The site will be filled in the lower areas to improve drainage and provide flood free development sites. It is unlikely that fill will be used to promote views.</i>
Streets
New coastal settlements have a street pattern similar to coastal hamlets or coastal villages. They present an ideal opportunity to provide a street pattern responding to the landform, views and permitting a high level of visual, pedestrian, cycle and vehicular permeability. <i>The street pattern of the proposed development is highly permeable and connected as well as providing opportunity for safe pedestrian and cycle access.</i> <i>The street pattern maximises visual opportunities to the surrounding conservation areas.</i>
The street pattern also: <ul style="list-style-type: none"> ▪ creates public neighbourhood centres and a main street; ▪ avoids privatised enclaves by providing direct access to the foreshore; ▪ provides an interconnected and permeable street pattern; and ▪ responds to pedestrian and cycle distances and connects to a local and regional network. <i>The street pattern has a hierarchy that is in-built by a variety of street and landscaping design measures. The street pattern does not provide direct access to the foreshore. It provides passive surveillance to parks and active frontages to streets.</i>
Buildings
The pattern of land development within the settlement is designed to promote amenity. <i>The street pattern and green network have been designed to ensure permeability, walkability and a high level of amenity.</i>
The settlement has a compact footprint to reduce land intake. <i>The proposed concept plan has been designed to ensure efficient use of land whilst ensuring amenity is not</i>

<i>compromised and all ecologically significant areas are protected.</i>
Blocks and streets are walkable and safe. <i>Street environments have been designed to slow vehicles and facilitate pedestrian movement.</i>
The neighbourhood centre has commercial, retail, education and civic buildings and some shop-top housing. <i>A neighbourhood centre will contain commercial, shop top accommodation, community/civic facilities and high quality recreational areas.</i>
Buildings address the street. <i>The layout has been designed to ensure that all buildings will be able to be constructed in a way that they will address the street.</i>
Tourist developments integrate into the settlement's street pattern and define the edge between public and private land. <i>Tourist development may be considered within the neighbourhood centre. This location is appropriate as it is close to facilities and has excellent access into Lennox Head Village.</i>
Lot sizes and configurations are design to support a range of housing types that integrate into the street pattern and the location of functions throughout the settlement. <i>The subdivision pattern provides sites for a range of housing types including detached dwelling allotments of various sizes and medium density sites.</i>
Residential areas consist of coastal cottages, detached and semi-detached houses, town houses and terraces. <i>The proposed subdivision will facilitate the future development of a variety of housing forms.</i>
A diversity of lot and housing types are developed to accommodate various household sizes and types. <i>Housing choice, including high quality medium density housing, and a variety of dwelling sizes will be accommodated within the proposed subdivision.</i>
Buildings are designed to suit the climate and use environmentally sustainable building design and materials. <i>Environmental design measures are integral to the subdivision layout and infrastructure provision. Environmentally sustainable building design and material will be determined at the development stage of the community. All new residential buildings will require a BASIX assessment prior to lodgement with Council and will have to follow development controls drafted to ensure high quality design outcomes.</i>
Housing types optimize visual and acoustic privacy, integrate passive solar design principles, minimize water use, and seek to achieve architectural distinction and excellence. <i>Lot layouts and positions seek to optimise privacy, facilitate solar access and reduce water use by the use of a variety of measures such as solar orientation and permeable open spaces.</i>
Height
Residential buildings are one to two storeys. <i>The majority of buildings on residential lots will be 2 storeys or less in accordance with the BLEP 1987 and the Ballina Shire Combined DCP. There will however be some buildings in the neighbourhood centre and retirement community that will be proposed at 3 storeys. Justification for this increase in building height is provided in Section 4.14 of this report.</i>
The neighbourhood centre or the main street has buildings up to two storeys. <i>The commercial precinct of the site will have buildings up to 3 storeys. Justification for this increase in building height is provided in Section 4.14 of this report.</i>
Where visual prominence is not apparent three storey buildings may be appropriate. <i>Three storey development is proposed in some sections of the community and justification for this provided in Section 4.14 of this report.</i>
Heights are subject to place-specific urban design studies. New development is appropriate to the predominant form and scale of surrounding development (either present or future), surrounding landforms and the visual setting of the settlement. Buildings avoid overshadowing of public open spaces, the foreshore and beaches. <i>An urban design assessment is provided in this report. The concept plan proposes high quality built form outcomes which reflect, preserve and enhance the unique coastal character of Lennox Head. Lot layouts have</i>

been designed to minimise potential for overshadowing of public open spaces and, adjoining properties, however this will need to be considered during the development stage of the subdivision. The development will not overshadow the foreshore or beach.

6.8.3 Sustainable Urban Settlement Guidelines

The Sustainable Urban Settlement Guidelines were developed for the North Coast of NSW as part of the work undertaken to prepare a Northern Rivers Regional Strategy. They provide a number of strategic planning tools associated with:

- resource management;
- environmental management;
- site design;
- road design; and
- community wellbeing.

The guidelines also provide a number of checklists that present useful reminders for all aspects of planning and design. Table 6.4 assesses the consistency of the proposed development against the guidelines provided within the Site Planning checklist.

Table 6.4 Sustainable Urban Settlement Guidelines

<i>Managing Resources</i>
Protect and create environmental attributes on the site. <i>Areas of ecological significance will be protected and embellished by environmental rehabilitation activities and buffer zones to provide protection from proposed urban development.</i>
Manage areas or buildings of special social, cultural or heritage significance to the local community so their main assets are conserved. <i>The site does not exhibit any items or places of cultural heritage significance.</i>
Take opportunities to remediate and enhance the site, and whenever possible repair and adaptively reuse existing buildings. <i>Ecological enhancement and protection works will be undertaken on the site. Significant areas of the site will be revegetated to improve connectivity to flora and fauna corridors and to add value to the conservation values of the locality.</i>
Take measures to safeguard and avoid natural hazards. <i>Bushfire asset protection zones will be provided to ensure the safety of future dwellings.</i>
If acid sulfate soil has to be disturbed, manage the soil to permanently avoid mobilization of acid. <i>Preliminary site inspections have found that acid sulfate soils are unlikely to be disturbed by the development given that the lower areas of the site will be filled. An ASS Management Plan has been prepared in the event that any PASS are disturbed.</i>
Where possible, avoid the need to fill land for development. <i>Some filling is necessary on the site due to the need to provide fall for drainage purposes and flood immunity.</i>
Develop the site so it does not negatively impact on the environmental attributes of neighbouring sites. <i>No development is proposed within areas of environmental significance within the site. Design measures have also been implemented to ensure that the environmental attributes of adjoining properties are not negatively impacted upon. Additionally in areas that are considered to act as corridor areas of significant habitat, further embellishment of the environmental attributes of adjacent natural areas are proposed.</i>
<i>Managing the Environment</i>
To protect and improve wetlands and waterways. <i>The Concept Plan proposes a number of stormwater treatment measures to ensure the SEPP 14 wetland is protected. Soil management practices will also ensure that this area is protected.</i>

<p>Establish wildlife and community buffer areas between the site and neighbouring economic areas. <i>The site does not adjoin any employment or economic areas.</i></p>
<p>Facilitate only development which the local sewerage treatment and urban stormwater run-off disposal systems can cope with without affecting waterways, groundwater quality and natural areas. <i>Sewage generated from the site will be piped to the Lennox Head STP. Ballina Shire Council has confirmed that the plant has the capacity to cater for the new development area.</i></p>
<p>Design a system to manage stormwater and prevent silt entering watercourses during construction and in the long-term. <i>A comprehensive integrated watercycle management system is proposed for the site that includes an extensive range of WSUD measures for water saving, capture, treatment, reuse and disposal. An erosion and sediment control plan will be implemented for each stage of the development.</i></p>
<p>Designing the Site</p>
<p>Design development to make the best use of the site's assets identified in the site analysis. <i>The street pattern reflects the need to edge adjacent bushland and follows the natural contours of the site.</i></p>
<p>Enable solar alignment of buildings to override street alignment. <i>Buildings will be aligned to facilitate passive solar access. New dwellings will be assessed during the development application stage but will need to address quality design controls.</i></p>
<p>Design new development or redevelopment to be compatible with neighbouring development. <i>New development will be designed to respond to the site and surrounding area. New development is expected to be of a higher standard and considerably more energy efficient than the other dwellings of the surrounding area.</i></p>
<p>To achieve energy smart lots in residential subdivisions. <i>Lots are orientated with their long axis less than N30°E or E30°S. Where this is not possible, lots will be of a size and shape to provide solar access. BASIX assessment will apply to any new dwellings in the development.</i></p>
<p>Maximise densities (where relevant) to reduce the area of land taken up by urban development, and to make servicing and transport more efficient. <i>The Concept Plan proposes a wide range of housing types from retirement living in a medium density housing environment to small lot affordable housing to larger traditional residential lots. The proposed medium densities are proposed on the flatter sections of the site. This will minimise the footprint of the development whilst providing a range of housing option for the community and a framework that will make servicing and transport more efficient.</i></p>
<p>Maximise the efficiency of non-renewable resources. <i>This will be dealt at the dwelling development stage of the subdivision. It is considered that the design of the subdivision has incorporated features that will make this element achievable.</i></p>
<p>Designing Roads</p>
<p>Design roads so they lead directly to the heart of the settlement. Avoid the use circuitous streets or dead ends that result in extra travel distances. Design for easy pedestrian or cycle access, including pedestrian/cycle priority areas. <i>The internal road network is well connected and street environments are designed to facilitate pedestrian and cycle traffic.</i></p>
<p>Design local roads so they are as narrow as possible, saving land, construction resources, construction energy, rainwater run-off, and money; and making the site more pleasant to live and work in. <i>The street pattern of the proposed development has been design to facilitate the movement of local traffic as well as traffic generated from the neighbourhood centre and retirement community. Minor roads and access roads will be designed to the safest possible minimum width.</i></p>
<p>Design local roads with traffic calming measures in residential areas and other areas frequented by pedestrians.</p>

<p><i>Internal streets will incorporate a range of traffic calming measures such as pinch points, landscaping, narrow carriageways and car parking.</i></p>
<p>Design and construct roads to best practice standards to protect them and their surroundings from stormwater damage. Use materials and design to encourage ground absorption of water onsite.</p> <p><i>An internal roads hierarchy has been prepared in response to traffic loads and location. Roads have been designed to reduce impervious areas and provide a high level of landscaping. A range of road widths and edge treatments has been proposed to suit the road hierarchy.</i></p>
<p>Community Wellbeing</p>
<p>Provide sufficient public open space either within the site or nearby, include areas for people to meet, relax, have fun and make contact with nature.</p> <p><i>Open space is provided in the form of ecologically significant protected areas, sports fields, parks, passive open space, boardwalks and a walking and cycling network.</i></p>
<p>Ensure development aims to achieve long-term lifestyle benefits for the whole community, including future generations. If in doubt, design it so options for future use of the site are as open as possible.</p> <p><i>The development achieves the principle of intergenerational equity by achieving several sustainability objectives including housing, employment and transport choice, education, efficient use of resources and protection of biodiversity.</i></p>
<p>Charge Section 94 contributions.</p> <p><i>Contributions in accordance with Council's Section 94 contributions may be levied on the proposal.</i></p>
<p>When assessing the cost or benefit of development, ensure that any impact on the environment is considered in the best interest of existing and future generations.</p> <p><i>A long term view was adopted during the preparation of the concept plan.</i></p>
<p>Allow all stakeholders in the community input into the site development application. Use mediation, rather than litigation, for any conflict resolution.</p> <p><i>The EBD process has ensured high quality community consultation at the front end of the process. The Concept plan will be also be subject to further community consultation as part of exhibition of the concept plan and subsequent development application/s.</i></p>

6.8.4 NSW Floodplain Management Manual

Ardill Payne and Partners have provided an assessment of the flood implications of the proposed development (see **Appendices H and I**). The flood assessment has utilised a number of flood studies and reports that have been carried out and relate to the site. As a result of this assessment Ardill Payne and Partners have recommended a minimum fill level of RL 2.3 at the edge of the floodways and has been adopted in the design of the Concept Plan. This level is 200 mm above the required level of RL 2.1 m, to account for future fluctuations Ardill Payne and Partners have advised that they do not expect any significant change will occur to the flood levels as a result of the proposed filling as part of the Concept and Project Applications.

6.9 Local Policies and Strategies

6.9.1 Far North Coast Regional Planning Strategy

This Strategy has recently been adopted by the Minister for Planning. It provides a framework for future development in the far north coast area. In recognition of the existing zoning of the Pacific Pines site as 2(b) Village, the whole of the site is mapped within the 'existing urban footprint'. The principles and guidelines contained in the Strategy will, however, have been considered and implemented in the detailed design of the proposed Concept Plan. In this regard the DGR's require that the proposed concept plan demonstrate consistency with the Sustainability Criteria set out in the Far North Coast Regional Strategy.

Table 6.5 provides an assessment of the consistency of the Concept Plan in relation to the Sustainability Criteria set out in the Far North Coast Regional Strategy.

Table 6.5 Sustainability Criteria - Far North Coast Regional Strategy

<i>Threshold Sustainability Criteria for any proposed development site outside designated areas in regional strategies</i>	<i>Measurable explanation of criteria</i>
<p>1. Infrastructure Provision Mechanisms in place to ensure utilities, transport, open space and communication are provided in a timely and efficient way</p>	<p>Development is consistent with the outcomes of Far North Coast Regional Strategy, any subregional strategy, regional infrastructure plan and relevant section 117 direction/s;</p> <p><i>The subject land is identified in the designated areas within the Far North Coast Regional Strategy, the Lennox Head Community Aspirations Strategic Plan and is zoned 2(b) Village Zone. It is considered that the proposal is consistent with the abovementioned strategies and directions.</i></p> <p>The provision of infrastructure (utilities, transport, open space, and communications) is costed and economically feasible based on Government methodology for determining infrastructure development contributions;</p> <p><i>The subject concept plan covers an area that is included in the existing Lennox Head village footprint. The site adjoins an existing developed residential estate to the south, north and east. All existing services are available to the proposed development and contributions will be paid to council in accordance with relevant contribution plans. Ballina Shire Council has made provisions to augment sewer and water infrastructure for growth in Pacific Pines through their Development Servicing Plan (DSP). Staging of augmentation is being determined by Council through an update of the DSP.</i></p> <p>Preparedness to enter into development agreement.</p> <p><i>At this stage there is no reason to enter into such an agreement given the location of the site in close proximity to existing services and infrastructure as well as the proposed new community and recreational infrastructure proposed for the future development of the site.</i></p>
<p>2. Access Accessible transport options for efficient and sustainable travel between homes, jobs, services and recreation to be existing or provided</p>	<p>Accessibility of the area by public transport and/or appropriate road access in terms of:</p> <ul style="list-style-type: none"> ▪ location/land use – to existing networks and related activity centres; ▪ network – the area's potential to be serviced by economically efficient transport services; and ▪ catchment – the area's ability to contain, or form part of the larger urban area which contains adequate transport services. Capacity for land use/ transport patterns to make a positive contribution to achievement of travel and vehicle use goals. <p><i>The North Creek area is serviced by an existing bus service. The bus service will service the Concept Plan area.</i></p> <p>No net negative impact on performance of existing subregional road, bus, rail, ferry and freight network.</p> <p><i>It is not considered that the proposed Concept Plan will have a negative impact on the existing subregional transport network.</i></p>
<p>3. Housing Diversity Provide a range of housing choices to ensure a broad population can be housed</p>	<p>Contributes to the geographic market spread of housing supply, including any government targets established for aged, disabled or affordable housing.</p> <p><i>The proposed concept plan provides for approximately 850 dwellings in total. To provide choice and to respond to the diverse housing demands</i></p>

Threshold Sustainability Criteria for any proposed development site outside designated areas in regional strategies	Measurable explanation of criteria
	<p>and cater for smaller households, the elderly and affordable housing, there will be a wide range of housing types including:</p> <ul style="list-style-type: none"> ▪ conventional residential lots; ▪ larger lots on steeper slopes; ▪ smaller cottage lots; ▪ duplexes; ▪ terrace houses; ▪ live / work dwellings; ▪ apartments over businesses; ▪ retirement cottages; ▪ retirements apartments; and ▪ assisted living.
<p>4. Employment Lands Provide regional/local employment opportunities to support the Far North Coast's expanding role in the wider regional and NSW economies</p>	<p>Maintain or improve the existing level of sub-regional employment self-containment.</p> <p><i>Proposal provides some employment opportunities within the proposed neighbourhood centre.</i></p> <p>Employment-related land is provided in appropriately zoned areas.</p> <p><i>The proposal relates essentially to the establishment of a residential precinct on the site. It is however, proposed to provide a neighbourhood centre to service the broader North Creek Valley community as well as the Pacific Pines Estate. Although not generating significant employment, the neighbourhood centre will create a number of jobs for in and around the Lennox area as part of the business and services provided on site. The Far North Coast Regional Strategy identifies Lennox Head as a coastal village. It is considered that the proposed concept plan is consistent with the outcomes of Section 9 Economic Development and Employment Growth of the Far North Coast Regional Strategy.</i></p>
<p>5. Avoidance of Risk Land use conflicts, and risk to human health and life, avoided.</p>	<p>No residential development within 1:100 floodplain.</p> <p>Avoidance of physically constrained land, e.g.</p> <ul style="list-style-type: none"> ▪ high slope; or ▪ highly erodible. <p>Avoidance of land use conflicts with adjacent existing or future land use as planned under relevant subregional or regional strategy.</p> <p>Where relevant available safe evacuation route (flood and bushfire).</p> <p><i>Investigations have been carried out in regard to all risks related to the site including flooding, bushfire, contaminated land, slope and instability, acid sulfate soil etc. All areas identified for residential development are free from these environmental constraints.</i></p>

Threshold Sustainability Criteria for any proposed development site outside designated areas in regional strategies	Measurable explanation of criteria
<p>6. Natural Resources Natural resource limits not exceeded/ environmental footprint minimised</p>	<p>Demand for water within infrastructure capacity to supply water and does not place unacceptable pressure on environmental flows. Demonstrates most efficient / suitable use of land:</p> <ul style="list-style-type: none"> ▪ avoids identified significant agricultural land; and ▪ avoids productive resource lands – extractive industries, coal, gas and other mining, and quarrying. <p>Demand for energy does not place unacceptable pressure on infrastructure capacity to supply energy-requires demonstration of efficient and sustainable supply solution.</p> <p><i>Augmentation of the existing reticulated water system will need to be carried out prior to the completion of all development proposed in the Concept Plan. Council are currently investigating the existing capacity of the system and what components of the Concept Plan prior to augmentation.</i></p> <p><i>Country Energy has advised that it will be able to adequately service the development proposed in the Concept Plan.</i></p>
<p>7. Environmental Protection Protect and enhance biodiversity, air quality, heritage, and waterway health</p>	<p>Consistent with government-approved Regional Conservation Plan (if available).</p> <p>Maintains or improves areas of regionally significant terrestrial and aquatic biodiversity (as mapped and agreed by DEC). This includes regionally significant vegetation communities, critical habitat, threatened species, populations, ecological communities and their habitats.</p> <p>Maintain or improve existing environmental condition for air quality.</p> <p>Maintain or improve existing environmental condition for water quality:</p> <ul style="list-style-type: none"> ▪ consistent with community water quality objectives for recreational water use and river health (DEC and CMA); and ▪ consistent with catchment and stormwater management planning (CMA and council). <p>Protects areas of Aboriginal cultural heritage value (as agreed by DEC).</p> <p><i>Careful consideration has gone into the design of the Concept Plan to ensure potential environmental impacts that may result from the development are addressed. The water cycle management measures proposed for the development area will ensure the future protection of the adjacent SEPP 14 wetland, with stormwater quality improvements of some 30-60 per cent over current discharge quality. A Cultural Heritage Assessment of the site carried out reveals that there are no specific areas or items of cultural heritage on the site.</i></p>
<p>8. Quality and Equity in Services Quality health, education, legal, recreational, cultural and community development and other government services are accessible</p>	<p>Available and accessible services:</p> <ul style="list-style-type: none"> ▪ do adequate services exist?; ▪ are they at capacity or is some capacity available?; ▪ has Government planned and budgeted for further service provision?; and ▪ developer funding for required service upgrade/access is available. <p><i>A number of sport and recreational and community services are proposed as part of the Concept Plan. An assessment of the demand that the proposed development will have on services in the locality has been</i></p>

<i>Threshold Sustainability Criteria for any proposed development site outside designated areas in regional strategies</i>	<i>Measurable explanation of criteria</i>
	<i>undertaken by Petrac (Section 8.13). It is considered that there are adequate other services provided in Lennox Head and Ballina.</i>

6.9.2 Lennox Head Community Aspirations Strategic Plan

This Strategic Plan was adopted by Ballina Shire Council in November 2002 following a detailed community consultation process. It was developed to reflect the ambitions of the local community for the future of their area. As part of its Mission Statement, the Plan seeks to promote and enhance a sense of community in the area by:

- balancing environmental, social and economic needs;
- reducing conflict by providing clear guidelines for future development; and
- enabling continuing community involvement in its application.

Table 6.6 provides an assessment of the consistency of the Concept Plan in relation to the Lennox Head Community Aspirations Strategic Plan.

Table 6.6 Lennox Head Community Aspirations Strategic Plan

KEY PLANNING ISSUES
<p><i>The community places a very high value on the existing “lifestyle” and “village atmosphere” of Lennox Head and wishes to ensure that these qualities are protected and enhanced in the future.</i></p> <p>The development has been designed to provide ‘village-style’ facilities, such as the Neighbourhood Commercial / Community Centre, to both ease the demand on the existing Lennox Head village centre and to create an alternative village centre for the North Creek Road area.</p>
<p><i>Lennox Head is located in close proximity to a number of important environments which need to be adequately protected into the future. Many of these environments are degraded and require restoration.</i></p> <p>The watercycle management measures proposed for the development area will ensure the future protection of the adjacent SEPP 14 wetland, with stormwater quality improvements of some 30-60 per cent over current discharge quality.</p>
<p><i>There are concerns about significant future population growth in Lennox Head and its impact on the village atmosphere and environment currently enjoyed. There are also concerns regarding the rate of population growth in the area.</i></p> <p>The development continues the staging of the Pacific Pines Estate, to ease perceptions of massive growth. The development will continue as a staged development to meet the needs of the market and the community in a sustainable manner.</p>
<p><i>Community infrastructure, such as playing fields and community halls, are inadequate to meet the current needs of the community.</i></p> <p>The Pacific Pines Estate development has already substantially contributed, and will continue to contribute to the provision of community infrastructure. Sporting fields are currently being constructed as part of an earlier stage of the development. The proposed development provides for further sporting fields and amenities and a Neighbourhood Commercial / Community Centre that will provide for a wide range of services and facilities.</p>
STRATEGIC PRINCIPLES
<i>Village Atmosphere and Lifestyle Principles</i>
<p><i>Housing Design</i></p> <p>The Concept Plan provides for a range of housing types and densities, with higher densities located closer to the Neighbourhood Commercial / Community Centre, open space and main access roads. It also provides for a style</p>

and scale of development that is sensitive to the character, climate and topography of the site, with larger 'hillside lots' on steeper areas, significant vegetation protected, and lots orientated to provide for appropriate solar access.

Transport and 'Walkability'

The Concept Plan encourages the development of a more efficient and better utilised public transport network by co-locating facilities such as the Neighbourhood Commercial / Community Centre and playing fields in a "node" located on the major access road (Hutley Drive). Walkability is encouraged with the provision of a pedestrian network, both within the development area and connecting to adjoining residential areas.

Visual Character

The Concept Plan has adopted the principle of integrating future development with the landscape rather than substantially modifying the landscape to accommodate development. Lots are therefore responsive to the site's topography and visual exposure, with larger lots on steep exposed areas and significant landscape plantings to soften views into the site.

The provision of the substantial north-south environmental corridor, together with the fig tree parks and substantial areas of open space around the Water Quality Control Pond will also ensure that the natural environment dominates the landscape character of the site. A visual Assessment Report has been prepared by Deicke Richards and is attached as **Appendix K**.

Community Involvement

The draft version of the SEPP 71 Master Plan was exhibited for public comment in 2003 in both the Sydney and Grafton offices of DIPNR. It was also available for viewing at the offices of Ballina Shire Council and at the Lennox Head Library. A copy of the documentation was also made available on the internet. This Master Plan was adopted by the Minister for Planning in 2006.

Since then, the property has changed hands and the new owners, Petrac, have recommenced the consultation process with the aim of achieving new community input into the planning of the development.

An Enquiry by Design Workshop (EDB) was held in Lennox Heads which brought together Petrac, community participants, the design team, Council staff, relevant Government agencies and surrounding developers. The new draft Concept Plan was the key outcome from the EDB.

A community survey was also conducted involving 300 Lennox head residents.

Environment Principles

Environment

The Concept Plan protects and enhances the natural resources in and around the site. Existing site vegetation is protected, with significant new plantings provided in the north-south environmental corridor to link existing vegetated areas. The integrity of the adjacent wetland area is protected by the provision of open space buffers and enhanced by the implementation of a suite of stormwater and water cycle controls that will result in a significant (some 30-58 per cent) improvement in existing discharge quality.

Cultural Heritage

Everick Heritage Consultants Pty Ltd reports that there are no specific areas or items of cultural heritage on the site. Notwithstanding of this, the Jali Local Aboriginal Land Council has recommended the protection of a small area of regenerating rainforest and a spring located on the higher lands, because of a general cultural attachment to these items. Both areas are protected within the proposed environmental corridor.

Community Infrastructure Principles

Community Infrastructure

The Pacific Pines Estate, including previously approved stages and the Concept Plan, makes a significant contribution to community facilities for the North Creek Road area and the wider Lennox Head Village. Land for sporting facilities has previously been dedicated, with the sporting fields currently under construction. Petrac proposes to complete construction and improve on the standard of these facilities. Overall, public open space is provided well in excess of requirements.

Perhaps most significantly, the Concept Plan proposes a Neighbourhood Commercial and Community Centre together with a Retirement Community that will contain a range of facilities for use by Pacific Pines Estate residents and the wider community.

STRATEGIC ACTIONS
<p>Urban Growth</p> <p>The preferred average density for new release areas is 8 dwellings per hectare.</p> <p>The development area is 'committed land' in terms of urban growth, in that it is already zoned for residential purposes, with an overall development concept having been adopted since at least the early 1990's.</p> <p>The Concept Plan provides for a total of around 850 dwellings providing a density of about 10.5 dwellings per hectare.</p>
<p>Community Infrastructure</p> <p><i>'A combined sporting complex will be constructed in the vicinity of the "Pacific Pines" Neighbourhood Centre'.</i></p> <p>Land for this sporting complex has been dedicated, with the first stage of the facilities currently under construction. Petrac proposes to complete construction and improve on the standard of these facilities.</p> <p><i>'No further stages of Pacific Pines Estate will be released until such time as a detailed construction program has been agreed to by Council for the Pacific Pines Playing Fields'.</i></p> <p>See above.</p>
<p>Environment</p> <p><i>'Existing native vegetation systems (within both existing and future urban areas) shall be retained and protected for its environmental and landscape value'.</i></p> <p>All of the significant vegetation within the Concept Plan area will be protected within areas of public open space, with substantial additional planting proposed, particularly in the area of the proposed north-south environmental corridor.</p> <p><i>'A Restoration Plan for significant environments will be prepared in consultation with the community. The plan will prioritise areas requiring restoration and identify strategies and actions required to achieve this'.</i></p> <p>It is likely that such a plan would identify the SEPP 14 wetland area adjacent to the site as a 'significant environment'. The Concept Plan protects this environment through the provision of open space buffers and provides for enhancement by way of significant stormwater and water cycle control measures, which will result in 30-60 per cent improvement in current discharge quality.</p> <p><i>'A landscape study will be undertaken into areas of visual prominence in Lennox Head - including ridgelines, headlands and the areas adjacent to the Coast Road'.</i></p> <p>Deicke Richards have carried out a Visual Assessment of the impacts of the Concept Plan (Appendix K) which finds that, although the proposed development will alter how the site is viewed from some waterways, parks, reserves and identified public viewing locations, various urban design strategies have been implemented to ensure that changes to view sheds and view corridors do not result in a reduced level of visual amenity. The development has also been developed having careful regard to the Coastal Design Guidelines for NSW and as such, particular care has been taken to protect scenic areas and minimise the visual imprint of the development in the landscape.</p> <p><i>'Subdivisions will provide for adequate and effective buffers to all areas identified as being of high conservation value with these buffers being zoned for environmental protection purposes'.</i></p> <p>Open space buffers are provided to the adjacent SEPP 14 wetland area.</p> <p><i>'Future planning, development and subdivisions will seek to establish wildlife corridors linking areas identified as high conservation value'.</i></p> <p>The protection of significant site vegetation and the additional landscape planting proposed will provide an environmental corridor linking vegetated areas on the site's north and south. The plantings will also provide a link through Water Quality Control Pond area to the adjacent SEPP 14 wetlands.</p> <p><i>'Improved management of stormwater in existing urban areas'</i></p> <p>The Concept Plan provides significant improvements in this regard, with a range of stormwater and water cycle management measures proposed, based on the principles of Water Sensitive Urban design. The measures proposed are significantly better than any systems existing in the Lennox area, and will result in some 30-58 per cent improvement in current stormwater discharge quality.</p>

'New subdivisions will provide for adequate and effective buffers between new urban developments and areas identified as being key mosquito habitat'.

The open space buffers provided to the adjoining wetland area will be sufficient to prevent mosquitoes from becoming a problem for future residents of the Concept Plan area.

'New subdivisions identified as being located in areas which are bush fire prone will be designed in a manner which is consistent with the relevant requirements of the NSW Rural Fire Service, particularly those documented in the publication entitled "Planning for Bushfire Protection, 2001".'

The Concept Plan has been assessed against the Planning for Bushfire Protection guidelines 2006 and requirements. Adequate asset protection zones are provided, commensurate with the level of bushfire hazard.

Housing and Development Form

Ballina Shire Council will amend their Development Control Plans to promote lower scale housing that responds to the North Coast Climate and the environmental qualities and constraints of land.

These principles are the same as those outlined in the Coastal Design Guidelines for NSW. The Concept Plan has been developed to be consistent with the Coastal Guidelines so this development can provide a model for Council to use in amending its planning controls.

Transport and Accessibility

*'An integrated **Transport Network Strategy** will be developed to identify the required routes, design and function of the transport network in the area. This will include a review of the road hierarchy in Lennox Head and measures to improve access and interpretation of natural areas'.*

The Concept Plan design has specific regard to transport and accessibility. It has made provision for Council's concept of a western arterial bypass road, and provides both vehicular and pedestrian / cycleway access to adjoining residential and natural areas.

A key focus of the EBD Workshop was to plan and design the street network and the street connections to the surrounding community and further destinations. Outcomes from the workshop have been incorporated into the Concept Plan.

Commercial and Economic Development

'A second commercial area will be provided in Pacific Pines Estate to complement those facilities found in the village centre. This centre shall be lower in the retail hierarchy than the CBD and provide facilities of a neighbourhood scale to service the residents located in this area and enhance walkability.'

The Concept Plan provides a Neighbourhood Commercial / Community Centre that will achieve this strategic action.

6.9.3. Lennox Head Structure Plan

The Lennox Head Structure Plan provides the framework for the development of new urban release sites in the Lennox Head area. It outlines Council's broad strategy for the growth and development of Lennox Head.

The Pacific Pines Estate is mapped within the Structure Plan as an existing urban area. The Plan notes that the layout of the Estate is to be determined in the 'master planning process', and that neighbourhood centre community facilities will be provided within the site.

6.9.4 Ballina Urban Land Release Strategy

The Ballina Urban Land Release Strategy 2000 was developed to provide a foundation for the strategic planning process within the Shire. It identifies land that has the potential for future urban development and provides indicative timeframes for the commencement of the rezoning process for these lands.

The Concept Plan area is located within the 'Coastal Corridor' precinct as described within the Strategy. This precinct comprises the existing urban area of East Ballina and Lennox Head. Within the precinct, the coastline to the east and North Creek and the associated Ballina Nature Reserve to the west are noted as 'key natural attractions in the Shire'.

Within the analysis contained in the Strategy relevant to Lennox Head, the Concept Plan area is considered as '*residentially zoned undeveloped land*'.

The Strategy indicates that Council will need to provide in the order of 3,100 to 6,000 dwelling units within the Coastal Corridor precinct by the Year 2016. It also indicates that the lands identified within this release area will only yield a potential of 5,400 dwellings units.

The Urban Land Release Strategy, therefore, provides further justification for the Concept Plan development. The staging proposed within the Concept Plan area will allow for land release to occur within the appropriate timeframes.

6.10 Development Contributions

Ballina Shire Council's 2007/2008 Fees and Charges, list the following applicable Developer Contributions:

Public Open Space	\$675 per lot
Community Facilities	\$1,078 per lot
Road Contributions	\$2,080 per ERA*
Sewerage	\$6,459 per ET
Water	\$2,981 per ET

**ERA means Equivalent Residential Allotment and equates to 6.45 trips per day. This equates to the traffic generation calculated for the site in the Traffic Study (Appendix H), and will therefore equate to a per lot rate.*

Table 6.1 indicates the contributions likely to be required for the first stage of the proposed development. Contributions have not been calculated for future stages, as detailed design has yet to confirm final lot numbers.

Table 6.1 Developer Contributions

<i>No. of Lots</i>	<i>Public Open Space</i>	<i>Community Facilities</i>	<i>Roads</i>	<i>Sewerage</i>	<i>Water</i>
58	\$38,475	\$64,446	\$120,640	\$368,163	\$169,917

*Notes: 1. Contributions are all based on additional lots, i.e. calculated based on 57 additional lots.
2. Includes only residential lots. The development of the 'super lots' will be pursued by way of separate approvals.*

Council's Contribution Plan for roads provides for the construction of Hutley Drive, as part of what is called the Skennars Head Road Link (Stage 1). Given that the proponent will be constructing part of this road link, we would expect that Council would not levy the whole of the \$120,640 nominally payable.

The contributions plan allows for works in kind as well as monetary contributions, and therefore a combination of works and contributions is in accordance with the plan and would not require a separate Planning Agreement at this stage.

Key Assessment Requirements

7.1 Concept Application

The Director-General, in correspondence dated May 2007, has identified a number of key issues requiring assessment for the Concept Plan. These key issues are reproduced below along with a brief summary of how this Environmental Assessment Report addresses each key issue. A full copy of the Director-General's Environmental Assessment Requirements is provided in **Appendix A**. Detailed assessment of the issues is contained in **Section 8**.

<p>1. Strategic Planning</p> <p>1.1 Justify the proposal with reference to relevant local, regional and State planning strategies. Provide justification for any inconsistencies with these planning strategies.</p> <p>1.2 Demonstrate consistency with the Sustainability Criteria set out in the relevant Regional Strategy (including draft Regional Strategies).</p>	<p>The proposed development is consistent with all relevant local, regional and State planning strategies as summarised in Section 6.</p> <p>Section 6.10.1 addresses the Sustainability Criteria contained in the Far North Coast Regional Strategy. The proposed development is consistent.</p>
<p>2. Structure Plan – Land Uses, Subdivision and Urban Design</p> <p>2.1 Provide a Structure Plan for the site that identifies location of indicative landuses, densities, road and open space networks, residential development, senior's housing development, town/neighbourhood centres and protection of areas of environmental significance. The Structure Plan is to include:</p> <ul style="list-style-type: none"> a) consideration of the site's context, topography, opportunities and constraints; b) identification of areas capable of achieving more intensive land uses, that provide increased housing supply and choices and promote social and economic development; c) details of potential building envelopes, built form and design quality controls and the means for implementing them; and d) identification of any inconsistencies with the Ballina LEP 1987, relevant DCP's and policies in relation to key planning controls, including the Senior's Living SEPP. 	<p>A Concept Plan has been prepared addressing the specified requirements and is included in this report (refer Section 4).</p> <p>Context of the site is described in Section 2. The Concept Plan has been development based on this concept, as discussed further in the Urban Design Report (Appendix E).</p> <p>Design and built form controls are outlined in Section 4.14 and in the Urban design Guidelines contained in Appendix F.</p> <p>Planning controls, including the Ballina LEP, are examined in detail in Section 6.</p>

<p>2.2 Consideration of the integration and compatibility of the proposed land uses (eg residential properties, senior's housing, town centres, retail / commercial precinct, open space and environmental protection areas) and potential impacts such as access arrangements for each use, traffic, buffers, density controls; suitability of the proposed development with the surrounding area and visual impacts in the context of adjoining and surrounding development and from all publicly accessible areas.</p> <p>2.3 Consideration of the cumulative impacts of development in the North Creek precinct and identification of mitigation measures such as setbacks and buffer zones.</p> <p>2.4 Consideration of the interface between the proposed neighbourhood centre and residential areas, including mitigation measures to mitigate noise, traffic and other potential conflict issues.</p> <p>2.5 Outline the extent and specifications for filling of land, if proposed.</p> <p>2.6 Demonstrate the consistency of the proposal with the <i>Coastal Design Guidelines for NSW</i>, <i>NSW Coastal Policy 1997</i>, SEPP 71 – Coastal Protection, the <i>Mid North Coast Regional Strategy</i> and any Ballina Council DCP or policy.</p> <p>2.7 Outline the long term management and maintenance of any areas of open space or conservation including ownership and control, management and maintenance funding, public areas, revegetation and rehabilitation works and bushfire management.</p>	<p>These matters are discussed in detail in Section 4, in the Urban Design Report (Appendix E) and in the Urban Design Guidelines (Appendix F).</p> <p>These matters are discussed in detail in Section 8.18.</p> <p>As discussed in the Urban Design Report (Appendix E), the neighbourhood centre provides the focal point for the development. Higher residential development is located in proximity to the centre, to provide a compatible level of vibrancy and activity. Design solutions for this area are discussed in Appendices E and F.</p> <p>Earthworks are described in detail in the Concept Plan Engineering Report (Appendix H).</p> <p>Coastal Design Guidelines – Section 6.8.2; Coastal Policy – Section 6.8.1; SEPP 71 – Section 6.4; Far North Coast Regional Strategy – Section 6.9.1</p> <p>See Section 4.13</p>
<p>3. Visual Impact</p> <p>3.1 Address the visual impact of the proposal in the context of surrounding development and relevant mitigation measures. In particular address impacts on the amenity of the foreshore, overshadowing of public reserves, loss of views from public places and cumulative impacts.</p>	<p>A detailed visual impact assessment is contained in Appendix K and summarised in Section 8.12 of this report. Although the proposed development will alter how the site is viewed from adjoining waterways, parks, reserves and identified public viewing locations, various urban design strategies have been implemented to ensure that changes to view sheds and view corridors do not result in a reduced level of visual amenity.</p>

<p>4. Infrastructure Provision</p> <p>4.1 Address existing capacity and requirements of the development for sewerage, water, electricity, waste disposal, telecommunications and gas in consultation with relevant agencies. Identify and describe staging, if any, of infrastructure works.</p> <p>4.2 Address and provide the likely scope of any planning agreement and/or developer contributions with Council / Government agencies.</p>	<p>Infrastructure capacity and servicing requirements have been investigated by Ardill Payne and Partners and are addressed in detail in Appendices H and I. Although some augmentation of water reticulation will be required for the later stages of the Concept Plan, it is not considered that infrastructure provision would prevent the land being developed as proposed in this Concept Plan and Project Application.</p> <p>Ballina Shire Council has made provision for augmentation of water and sewer infrastructure for growth in Pacific Pines through their Development Servicing Plan (DSP). Staging of augmentation is being determined by Council by way of an update of the DSP.</p> <p>Contributions required for the Stage 1 Project Plan are outlined in Section 6.10. Given that detailed design of the remaining stages will determine the final lot numbers, contributions have not been calculated for those stages. Details of those contributions, and any suggestions for amendments that might be negotiated under a planning agreement, will be determined following detailed design and as part of subsequent approvals to implement the Concept Plan.</p>
<p>5. Traffic and Access</p> <p>5.1 Prepare a Traffic Concept Plan in accordance with Table 2.1 of the RTA's <i>Guide to Traffic Generating Development</i> and Ballina Council's Strategic Plan and Road Hierarchy Plan.</p> <p>5.2 Provide an assessment on the proposed road layout for the development addressing the following concerns:</p> <ul style="list-style-type: none"> a) provision for a suitable location for the potential link road to Henderson Farm and Ross Lane that minimises future cumulative impacts and provides suitable buffers to fish and fish habitat, particularly within the SEPP 14 area and the North Creek Nature Reserve; and b) the potential impacts of Hutley Drive southern link on the SEPP 14 wetlands. 	<p>Traffic and access are discussed in the engineering reports in Appendices H and I. The Traffic Concept Plan outlined therein investigates capacities of major roads that service the subdivision; strategic issues concerning future major roads near the site; and the internal road design.</p> <p>The design of the traffic network has ensured a highly permeable street system which includes (at Stage 1) connection to the adjoining Henderson farm site, located north of the sporting fields, well away from the Ballina Nature Reserve and any SEPP 14 areas.</p> <p>The proposed development of the site does not involve the construction of the southern link of Hutley Drive, nor does the development require that link to be constructed. This report, therefore, has not addressed any potential impacts associated with the delivery of that road infrastructure.</p>

<p>6. Hazard Management and Mitigation</p> <p><i>Contamination</i></p> <p>6.1 Identify any contamination on site and appropriate mitigation measures in accordance with the provisions of SEPP 55 – Remediation of Land.</p> <p><i>Acid Sulfate Soils</i></p> <p>6.2 Identify the presence and extent of acid sulphate soils on the site and, where relevant, appropriate mitigation measures.</p> <p><i>Bushfire</i></p> <p>6.3 Address the requirements of Planning for Bush Fire Protection 2006 (RFS).</p> <p><i>Geotechnical</i></p> <p>6.4 Provide an assessment of any geotechnical limitations that may occur on the site and if necessary, appropriate design considerations that address these limitations.</p>	<p>Ardill Payne has prepared a preliminary report on potential contamination of the site (see Appendices H and I). The investigation found that it is unlikely that the site would have been contaminated by previous land uses.</p> <p>Ardill Payne has prepared a preliminary Acid Sulfate Soil assessment for the site (see Appendices H and I). This report was based on the original acid sulfate soil assessment report prepared by Gilbert and Sutherland in March 2004. The Ardill Payne report found that most of the site excavation works are likely to occur outside of the PASS. Ardill Payne has recommended appropriate mitigation measures in the unlikely event that acid sulphate soils are disturbed.</p> <p>A bushfire risk assessment report has been prepared by GeoLINK and is contained in Appendix M. The report indicates that only the north-west and south-west margins of the site are adjacent to any areas of bushfire risk. It concludes that the development will not be subject to unacceptable bushfire risks.</p> <p>Ardill Payne completed a broad scale geotechnical investigation of the site in 2002-2003. This report has been updated to ensure relevance to this application (see Appendices H and I). The updated Ardill Payne report has found that conventional building construction systems can be applied to the majority of the site.</p> <p>There is a small area of the site that is very steep and may not be suited to conventional construction. The report recommends that where housing is proposed within areas where slope exceeds 25 per cent additional geotechnical investigation and advice be sought on slope stability and design criteria at the stage of individual lot development.</p>
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<p><i>Flooding</i></p> <p>6.5 Provide an assessment of any flood risk on site in consideration of any relevant provisions of the NSW Floodplain Development Manual (2005). Include an assessment of the impacts of climate change and likely sea level rise on the flooding regime of the site; and</p> <p>6.6 Consider the potential impacts of any filling on the flood regime of the site and adjacent lands.</p> <p><i>Mosquito Management</i></p> <p>6.7 Address the potential impacts of nearby known and suspected mosquito breeding areas for future residents of the development. Include consideration of Chapter 11 of Council's Combined DCP.</p>	<p>Ardill Payne has prepared a flood assessment report for the Concept Plan (refer to Appendices H and I). This assessment is based on a number of related flood investigations that have been undertaken over the years. The proposed development requires filling of the lower section of the site which has been approved under a separate approval process. As a result of the previous investigations Ardill Payne and Partners have recommended a minimum fill level of RL 2.3 at the edge of the floodway which has been adopted in the overall design. This recommended level includes an additional 200 mm above existing requirements, to account for variations associated with future sea level rise.</p> <p>Mosquito Consulting Services Pty Ltd were engaged to carry out a mosquito impact assessment on the proposed development (see Appendix L). The findings and conclusions of this report have revealed that management of the mosquito risk can be achieved through a number of design mechanisms. The report contains a number of recommendations to assist in managing potential risk from mosquito impact.</p>
<p>7. Water Cycle Management</p> <p>7.1 Address and outline measures for Integrated Water Cycle Management (including stormwater) based on Water Sensitive Urban Design principles which addresses impacts on the surrounding environment, drainage and water quality controls for the catchment, and erosion and sedimentation controls at construction and operational stages. Address the ability of the nearby waterway system (North Creek Nature Reserve, North Creek and Richmond River) to accommodate the nutrient / pollutant load that will enter the system.</p>	<p>Ardill Payne has prepared a Water Cycle Management Plan for the site (refer Section 8.3 and Appendices H and I). This report is based on WSUD principals and proposes a system that provides for:</p> <ul style="list-style-type: none"> ▪ continued use of existing Water Quality Control Pond as a tertiary treatment system and main detention dam / recycling source for the subdivision; ▪ provision of small dry retention systems upstream of the WQCP; ▪ provision of numerous primary small litter traps in stormwater collection pits; ▪ provision of a stormwater community education program (CEP) by the developer describing why the strategy has been adopted and how it works; ▪ ongoing monitoring of stormwater quality; ▪ provision of swales, infiltration and bio-retention systems in the flatter areas; and ▪ provision of recycled effluent and stormwater for irrigation and toilets.

<p>7.2 Ensure that the development is consistent with any relevant Statement of Joint Intent established by the Healthy Rivers Commissions and the River Flow and Water Quality Objectives.</p>	<p>The Healthy Rivers Commission has been disbanded and replaced with the Natural resources Commission (NRC). A number of river flow and water quality recommendations of the Healthy Rivers Commission have been taken up by the NRC and pursued as catchment based objectives. These objectives have been assessed and are addressed in Section 9.3 of the Concept Plan Engineering report (Appendix H).</p>
<p>7.3 Assess the impacts of the proposal on surface and groundwater hydrology and quality during both construction and occupation of the site. Consideration should be given to flood prone areas; the impact on wetlands, riparian zones, and other important habitat areas and the need for buffers to protect environmentally sensitive lands.</p>	<p>See Section 9 within Ardill Payne's <i>Engineering Report for Part3A Concept Plan</i> (Appendix H)</p>
<p>7.4 Address concept drainage and stormwater management issues arising from the development. This should include:</p> <ul style="list-style-type: none"> a) demonstrating that drainage and stormwater runoff will not have a significant impact on the surrounding environments downstream of the development (especially water, wetlands, and important habitat areas); b) demonstrating that there is not net increase in nutrient loads entering waterways mentioned above; c) details of the proposed stormwater treatment system such as gross pollutant traps, stormwater detention ponds and swales including their locations and capacities; d) maintenance of stormwater control systems and an associated management plan; e) integration of the proposal with the existing Water Quality Control Pond; f) demonstrating consistency with Ballina Council's DCP 13 – Stormwater Management; and g) the identification of any on-site treatment of stormwater and waste water, including recycling, Water Sensitive Urban Design, the need to incorporate dual use reticulation, and drainage infrastructure. 	<p>See Section 9 within Ardill Payne's <i>Engineering Report for Part3A Concept Plan</i> (Appendix H)</p>

<p>8. Heritage and Archaeology</p> <p>8.1 Identify whether the site has significance to Aboriginal cultural heritage and identify appropriate measures to preserve any significance (Aboriginal community consultation should be undertaken in accordance with DEC's interim Community Consultation Requirements for Applicant's).</p> <p>8.2 Identify any items of European heritage significance and, where relevant, provide measures for the conservation of such items.</p> <p>8.3 Address impacts on World Heritage areas, places listed on the National Heritage List and protected under the EPBC Act.</p>	<p>A cultural assessment of Pacific Pines Estate has been carried out as part of this proposal by Everick Heritage Consultants Pty Ltd (refer to Section 8.9 and Appendix J). This assessment found that there were no archaeological or heritage sites within the subject site.</p> <p>The Heritage Report in Appendix J demonstrates that the site does not contain any items of European heritage significance.</p> <p>The Heritage Report in Appendix J demonstrates that the development will not impact on any world heritage areas or places listed under the EPBC Act.</p>
<p>9. Flora and Fauna</p> <p>9.1 Conduct and document a comprehensive field survey in accordance with the draft Guideline for Threatened Species Assessment. Outline potential impacts on aquatic and terrestrial flora and fauna and their habitats (within the meaning of the Threatened Species Conservation Act 1995 and the Fisheries Management Act 1994), including the SEPP 28 littoral rainforest, Ballina Nature Reserve and SEPP 14 wetland areas, and identify consistency with the document Policy and Guidelines Aquatic Habitat Management and Fish Conservation 1999. Provide measures for their conservation and mitigation, where relevant;</p> <p>9.2 Provide a design and management plan providing details of the small creek located to the north-western side of the site which is to be rehabilitated and natural channel design principles and meanders, riparian vegetation and where appropriate, pools and riffles, be adopted;</p> <p>9.3 Address the proposed road crossings of this watercourse to ensure appropriate fish passage ensuring compliance with the NSW Fisheries document Why do Fish Need to Cross the Road/Fish Passage Requirements for Waterway Crossings;</p> <p>9.4 Identify and map proposed buffer zones surrounding aquatic habitats and waterways on the site. Identify key environmental assets that are being protected and outline how these assets are to be protected during the construction and operational phase of the development;</p>	<p>A comprehensive ecological report has been prepared by GeoLINK and is contained as Appendix B. It is supplemented by a Management Strategy prepared for the threatened species, Hairy Joint Grass, which is found on the site and which will be impacted by the proposed development. This strategy is contained in Appendix C.</p> <p>The ecological assessment concludes that, based on adoption and implementation of the Hairy Joint Grass Strategy, the proposed development will not have a significant impact on threatened species, populations or their habitats.</p> <p>The small creek located to the north-west of the site has been realigned in accordance with a previous development approval. It will be landscaped and rehabilitated in accordance with the strategy approved in that consent. The Part 3A application does not propose to change any of the approved details.</p> <p>Road crossing of the creek have also been approved, and the Part 3A proposal does not propose to change this approval.</p> <p>Vegetation and habitat protection is discussed in detail in the Ecology Report in Appendix B.</p>

<p>9.5 Provide a description of the proposed treatment of any existing wildlife corridor values and/or connective importance of any vegetation on the subject land. In particular, address the fragmentation of the major north-south green corridor that was approved in the master plan;</p> <p>9.6 Address impacts on migratory species. RAMSAR wetlands and species listed under Section 18 and 18A of the EPBC Act.</p>	<p>See Appendix B. The Concept Plan provides for the retention and embellishment of the north-south corridor (see Illustration C1)</p> <p>See Appendix B.</p>
<p>10. Noise</p> <p>10.1 Address potential noise impacts, in particular road traffic noise, for future residents and appropriate mitigation measures.</p>	<p>An environmental noise impact assessment for the proposed development was carried out by Carter Rytenskild Group Traffic and Acoustical Consultants (refer to Section 8.10 and Appendix N). This report found that the impacts of traffic noise can be mitigated through various design and setback measures. The environmental assessment makes a number of recommended acoustic treatments to achieve noise levels that are consistent with adopted standards.</p>
<p>11. Future Demographics</p> <p>Identify the likely future community to occupy the site and forecast the community services and facilities required. This report should:</p> <ol style="list-style-type: none"> provide an analysis of demographic projections; identify existing facilities and services and the projected demand the development will have on them, as well as any other implications that might arise; detail strategies and actions to satisfy the future demands for facilities and to mitigate any impacts on existing facilities and services required for the development; and <p>identify future facilities and services that will be required as a result of the development.</p>	<p>A community needs assessment has been undertaken by Petrac Pty Ltd and included in this report (refer to Section 8.13 and Appendix O). The community needs assessment has been based on an analysis of the latest census and housing results, demographic forecasts for Pacific Pines and Department of Sport and Recreation standards. The assessment provides an:</p> <ul style="list-style-type: none"> assessment of availability and adequacy of existing community and open space facilities within the Lennox Head area; analysis of the ultimate impact on facilities generated by the new Pacific Pines community; and evaluation of community needs in response within the proposal. <p>It is proposed to provide a number of sporting facilities, open space areas and community facilities to meet the demand future and existing demand of the Pacific Pines development.</p>

<p>12. Development Staging</p> <p>Identify staging of the development and demonstrate that land supply and demand will be released in an orderly and coordinated manner and will occur in conjunction with associated facilities and services.</p>	<p>Deicke Richards has prepared a staging plan for the proposed development. This is shown in Illustration C5. The staging plan shows how the Pacific Pines development will be constructed and released in an orderly and coordinated manner and in conjunction with associated facilities, services and infrastructure.</p>
<p>13. Off-site Impacts</p> <p>13.1 Demonstrate that the development will not have any adverse impacts on adjoining lands. This is to include consideration of adjacent land uses, water quality, water quantity, erosion, sedimentation, fire management, fencing, and access.</p>	<p>This environmental assessment report has investigated potential off-site impacts from the proposed development. This and other specific reports prepared for the proposed development indicate that potential off-site impacts can be mitigated to ensure there is no significant impact on adjoining properties or other properties in the locality/catchment.</p>

7.2 Project Application

The Director-General has identified a number of key issues requiring assessment for the Project Application for Stage 1. These key issues are reproduced below along with a brief summary of how the Project Application addresses each key issue. A detailed assessment of these issues is contained in **Section 8**.

<p>1. Compliance with Requirements for the Concept Plan</p> <p>The Environmental Assessment must demonstrate consistency with all DGR's detailed above in Part A, and the following additional matters.</p>	<p>Stage 1 has been prepared taking into consideration the Concept Plan.</p>
<p>2. Subdivision Layout, Desired Future Character and Sustainability</p> <p>2.1 Demonstrate the consistency of the proposal with the character of existing development in the locality in terms of street frontage, scale, building envelopes and future built form controls, aesthetics, energy and water efficiency and safety.</p> <p>2.2 Provide details of potential building envelopes, built form and design quality controls and means for implementing them.</p>	<p>The proposed development substantially improves on the existing character of the already developed Pacific Pines residential state. While the residential components of the proposal are generally consistent with the surrounding residential development, the proposal will deliver a residential precinct that is contemporary and innovative and consistent with the principles of ecological sustainable development. Particularly in relation to connectivity and permeability and in relation to variety of lot types, the proposal provides an improvement to existing character.</p> <p>Controls are outlined and discussed in Section 4.14 and the Urban Design Guidelines in Appendix F.</p>

<p>2.3 Assess the consistency of the subdivision with any relevant DCP or policy of Ballina Council.</p> <p>2.4 Demonstrate the consistency of the proposed subdivision design and layout with the Coastal Design Guidelines for NSW, NSW Coastal Policy 1997 and SEPP 71 – Coastal Protection.</p> <p>2.5 Identify the type of subdivision proposed across the site i.e. Community, Torrens, Strata.</p> <p>2.6 Provide details of any staging that demonstrates the lots will be released in an orderly and coordinated manner.</p> <p>2.7 Outline the long-term management and maintenance of any areas of open space or conservation including ownership and control, management and maintenance funding, public access, revegetation and rehabilitation works and bushfire management.</p>	<p>See Section 6</p> <p>See Section 6</p> <p>Stage 1 of the development will involve lots created using Torrens title.</p> <p>Overall staging is described in Section 4.11 and shown in Illustration C5. The first stage, subject to the Project Application, is proposed to be carried out in two 'sub-stages', as described in Section 5.1.</p> <p>See Section 4.13.</p>
<p>3. Infrastructure Provision</p> <p>3.1 Identify staging, if any, of infrastructure works.</p> <p>3.2 Address and provide the scope of any planning agreement and/or developer contributions with Council / Government agencies.</p>	<p>A full range of services and infrastructure will be provided as part of Stage 1. These include standard services such as water, sewer, telecommunications, electricity and roads. Although augmentation to Council's existing reticulated water supply will need to be carried out prior to the completion of all development proposed in the Concept Plan, it is understood that Stage 1 can be catered for without the need for this augmentation. This is discussed in detail in Ardill Payne's Engineering Report (see Appendix I)</p> <p>The contributions required for Stage 1 are outlined in Section 6.10. No planning agreement is considered necessary for this first stage.</p>
<p>4. Water Management</p> <p>4.1 Address the management of stormwater including, but not limited to:</p> <ul style="list-style-type: none"> a) the proposed stormwater discharge points from the site; b) measures to ensure compliance of road runoff quality with Ballina Council's DCP 13 – Stormwater Management; and c) potential impacts of the proposal on stormwater within the drainage swale. 	<p>Ardill Payne has prepared a Water Cycle Management Plan for the site and for Stage 1 of the proposal (refer to Section 8.3 and Appendix I). This plan is based on WSUD principals and proposes a system that is consistent with the provisions of Part 13 – Stormwater of the Combined DCP.</p>

<p>5. Traffic and Access</p> <p>5.1 Prepare a Traffic Plan in accordance with Table 2.1 of the RTA's Guide to Traffic Generating Developments.</p>	<p>Analysis by Ardill Payne indicates that the proposed development can be adequately serviced by the existing road network with the generated traffic loads well within the environmental capacity of the existing road network (see Appendix I)</p>
<p>6. Hazard Management and Mitigation</p> <p><i>Bushfire</i></p> <p>6.1 Address the requirements of Planning for Bush Fire Protection 2006 (RFS).</p> <p><i>Geotechnical</i></p> <p>6.2 Provide an assessment of any geotechnical limitations that may occur on the site and if necessary, appropriate design considerations that address these limitations.</p>	<p>A bushfire risk assessment report has been prepared by GeoLINK and is contained in Appendix M. The report indicates that only the north-west and south-west margins of the site are adjacent to any areas of bushfire risk. It concludes that the development will not be subject to unacceptable bushfire risks. The assessment has been undertaken in accordance with the requirements of PBP 2006.</p> <p>Geotechnical – The investigations of the site by Ardill Payne (see Appendix I) has indicated that conventional building construction systems are applicable for the site. Although the central area portion of the site which is to be filled will require some consolidation of soft clays prior to house construction.</p>
<p>7. Earthworks and Filling</p> <p>7.1 Provide a detailed survey showing existing and proposed levels and quantities of fill, if required.</p> <p>7.2 Where relevant, provide details of the source of fill including types of material and soils</p>	<p>A detailed earthworks plan is included in Ardill Payne's engineering report at Appendix I.</p> <p>As indicated in Appendices H and I, all fill material will come from on-site cuts.</p>
<p>8. Heritage and Archaeology</p> <p>8.1 Identify whether the site has significance to Aboriginal cultural heritage and identify appropriate measures to preserve any significance (Aboriginal community consultation should be undertaken in accordance with DEC's interim Community Consultation Requirements for Applicant's).</p> <p>8.2 Identify any items of European heritage significance and, where relevant, provide measures for the conservation of such items.</p> <p>8.3 Address impacts on World Heritage areas, places listed on the National Heritage List and protected under the EPBC Act.</p>	<p>A cultural assessment of Pacific Pines Estate has been carried out as part of this proposal by Everick Heritage Consultants Pty Ltd (refer to Section 8.9 and Appendix J). This assessment found that there were no archaeological or heritage sites within the subject site.</p> <p>The Heritage Report in Appendix J demonstrates that the site does not contain any items of European heritage significance</p> <p>The Heritage Report in Appendix J demonstrates that the development will not impact on any world heritage areas or places listed under the EPBC Act.</p>

<p>9. Flora and Fauna</p> <p>9.1 Outline potential impacts on aquatic and terrestrial flora and fauna and their habitats (within the meaning of the Threatened Species Conservation Act 1995 and the Fisheries Management Act 1994). Provide measures for their conservation, where relevant.</p> <p>9.2 Outline measures for the conservation of existing wildlife corridor values and/or connective importance of any vegetation on the subject land; and</p> <p>9.3 Address impacts on migratory species, RAMSAR wetlands and species listed under Section 18 and 18A of the EPBC Act.</p>	<p>A comprehensive ecological report has been prepared by GeoLINK and is contained as Appendix B. It is supplemented by a Management Strategy prepared for the threatened species, Hairy Joint Grass, which is found on the site and which will be impacted by the proposed development. This strategy is contained in Appendix C.</p> <p>The ecological assessment concludes that, based on adoption and implementation of the Hairy Joint Grass Strategy, the proposed development will not have a significant impact on threatened species, populations or their habitats.</p> <p>See Appendix B</p> <p>See Appendix B</p>
<p>10. Noise</p> <p>10.1 Address potential noise impacts, in particular road traffic noise, for future residents and appropriate mitigation measures.</p>	<p>An environmental noise impact assessment for the proposed development was carried out by Carter Rytenskild, Group Traffic and Acoustical Consultants (see Appendix N). Their report indicates that the impacts of noise can be mitigated through various design and setback measures. The environmental assessment makes a number of recommended acoustic treatments to achieve noise levels that are consistent with adopted standards.</p>

<p>Consultation</p> <p>You should undertake an appropriate and justified level of consultation with the following agencies during the preparation of the environmental assessment:</p> <p>(a) Agencies or other authorities:</p> <ul style="list-style-type: none"> ▪ Ballina Shire Council; ▪ Department of Environment and Conservation; ▪ Department of Primary Industries; ▪ NSW Rural Fire Service; ▪ Department of Natural Resources; and ▪ NSW Roads and Traffic Authority. <p>(b) Public:</p> <p>Document all community consultation undertaken to date or discuss the proposed strategy for undertaking community consultation. This should include any contingencies for addressing any issues arising from the community consultation and an effective communications strategy.</p> <p>The consultation process and the issues raised should be described in the Environmental Assessment.</p>	<p>As part of the preparation of the Part 3A Concept Plan and Project Application, Petrac undertook a comprehensive consultative process with the community and all relevant Government Agencies. This consultative process involved an Enquiry By Design (EBD) which was an intensive multi day collaborative design process and provided an excellent opportunity to create a well resolved and broadly supported design for the Pacific Pines site. The outcome of the workshop was a draft Concept Plan which included an indicative design for the whole site. Further details on the EBD are contained in Section 3 of this report.</p>
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Assessment of Potential Impacts

8.1 Ecology

A detailed flora and fauna assessment has been carried out, with the resultant report contained in full as **Appendix B** to this report.

The Pacific Pines site has been comprehensively surveyed and targeted searches were completed for all threatened species considered possible occurrences in the study area. The site consists largely of grazing land with low-lying areas characterised by sedgeland / rushland and elevated areas dominated by grassland. The slopes are largely cleared but contain several mature figs. Five broad vegetation communities were recorded including littoral rainforest, swamp oak forest, swamp sclerophyll forest, sedgeland / rushland and low closed grassland. These communities are shown in **Illustration 8.1**.

Three of these vegetation communities (Littoral Rainforest, Swamp Oak Floodplain Forest, and Swamp Sclerophyll Forest) are listed as Endangered Ecological Communities within Part 3 of Schedule 1 of the *Threatened Species Conservation Act 1995*.

Five threatened flora species listed within *Threatened Species Conservation Act 1995* were recorded, Rough-shelled Queensland Nut (*Macadamia tetraphylla*), Red Lilly Pilly (*Syzygium hodgkinsoniae*), White Laceflower (*Archidendron hendersonii*), Arrow Head Vine (*Tinospora tinoporoides*) and Hairy Joint Grass (*Arthraxon hispidus*). Four of these species are also listed as Vulnerable pursuant to the (Commonwealth) *Environmental Protection and Biodiversity Conservation Act 1999*.

Fauna surveys on the site and in the adjacent area of wetland recorded seven amphibian species, five reptile species, 41 birds and eleven mammal species. Three threatened fauna species were recorded on site including the Australasian Bittern, Grey-headed Flying-fox and the Greater Broad-nosed bat.

The proposed development has been designed to retain mature figs and the majority of forested communities including Littoral Rainforest and Swamp Oak Forest. Threatened rainforest plants will generally be retained within areas of open space and protected by buffers. Several threatened flora species (Arrow Head Vine and several specimens of Rough-shelled Bush Nut) occur along fence lines and will be retained at the rear of residential lots (protected by covenant). The rainforest communities will be retained and linked by way of an upgraded 'brook', to provide connectivity between communities and to the existing pond and Ballina Nature Reserve to the west.

A small area in the north-western corner of the proposed development area occurs within the 100m buffer zone of a neighbouring area of SEPP 26 Littoral Rainforest. This area will be set aside as open space and planted as a buffer to the SEPP 26 area. SEPP 14 No. 88, which covers 665 ha, is located to the immediate south-west of the site. The proposed development has been designed to minimise impacts on this coastal wetland. Sports fields, a water quality control pond and internal roads will separate residential development from the wetland areas, providing significant buffers. Stormwater management measures have been designed to ensure that all site run-off is captured and treated prior to discharge to the wetland. Modelling of the stormwater treatment proposals indicates that an improvement of approximately 30-60 per cent can be expected post-development, compared with existing water quality.



Illustration 8.1 Ecological Communities



Section 5A assessments have been completed for the threatened flora and fauna species recorded within the site; for the existing three endangered ecological communities; for one aquatic species; and for threatened fauna species known to occur in the study area. The assessments conclude that the impacts of the proposed development will be unlikely to result in the local extinction of any of these species.

8.1.1 Hairy Joint Grass Strategy

The discovery of Hairy Joint Grass (*Arthraxon hispidus*) is recent. Since 1989, the site has been earmarked for urban development. The original layout, adopted by Ballina Shire Council as a DCP, made no allowance for the species, and its implementation would have completely removed it from the site.

More recently, as part of the approvals for Stage 3 of the Pacific Pines subdivision, filling of the lower parts of the site have been approved. That approval has been commenced, and so the filling approval remains valid. A Construction Certificate has been issued by Council and, again, these approved works have been commenced.

Council's strategic planning for the North Creek Road precinct has provided for urban development of the land, including a neighbourhood-scale commercial centre that will support the existing Lennox village centre as the population of the area grows.

This commercial centre has always been notionally located on the lower parts of the site, right where the Hairy Joint Grass has been found.

Given all of this history, Petrac have investigated ways in which a balance might be achieved between long term protection of a viable population of Hairy Joint Grass in the locality and the implementation of approvals and Council's strategic intent.

This has resulted in the development of a Hairy Joint Grass Management Strategy, which is contained in full in **Appendix E**. Underpinning this strategy is the concept that protection of the species in small islands of protected grasslands surrounded by urban development is unlikely to protect the species in the longer term.

Hairy Joint Grass (*Arthraxon hispidus*) was identified within two main areas of sedgeland / rushland and low closed grassland. Approximately 2.1 ha of Hairy Joint Grass Habitat will be reserved within the development area. Rather than isolating sections of the species in smaller public parks surrounded by urban development, the Concept Plan proposes a strategy to protect and enhance habitat for the species in a larger contiguous area on-site and within larger areas off-site that join the Ballina Nature Reserve. This long-term strategy is outlined in **Appendix E**.



The overall objective of the Hairy Joint Grass Strategy is to compensate for the displacement of Hairy Joint Grass populations that will result from the urban development of the site.

This objective will be achieved through the implementation of the following Management Actions:

- on-site population retention and enhancement within the proposed Open Space Reserve;
- off-site population retention and enhancement of Hairy Joint Grass populations within the proposed Open Space Reserve linkage to the west and north-west of the site; and
- regional surveying and mapping of known and potential Hairy Joint Grass habitat.

On-Site Measures

As shown in **Illustration 8.2**, on-site retention and enhancement of Hairy Joint Grass populations will be achieved within the proposed open space network that links the littoral rainforest and spring in the east of the site to the existing pond through retention and embellishment of an existing watercourse. In all, approximately 2.1 ha of the Hairy Joint Grass habitat will be retained, with the development designed to ensure that existing conditions are not altered in this area. The area shown in **Illustration 8.2** is somewhat indicative as more detailed site assessment will be required to determine the exact planting proposals for the species within this area. The planting of hairy joint grass will also need to coordinate with the landscape proposals for this open space area, in order to maximise the amenity and biodiversity benefits of this area. As shown in **Illustration P5**, bulk earthworks will be designed in this area to ensure that protection of existing areas of Hairy Joint Grass can be maximised. The intention is to ensure that this existing area is not filled.

Trials involving the translocation and propagation of seedlings have commenced to assist in determining the most appropriate enhancement methodology. These trials will continue over the summer months of 2007/2008.

This on-site retention will provide:

- compensation for displacement of populations elsewhere on the site;
- opportunities for short and long term monitoring and research to increase the current understanding of the species biology, ecology and appropriate management;
- an opportunity for the local community to learn about and get involved with the ongoing management of threatened species habitat; and
- development of source populations for seed and/or seedling translocation trials to be conducted on and off the site.

The open space reserve that supports retained populations of Hairy Joint Grass will be privately owned and managed by the retirement community. As such, an Open Space Management Plan (OSMP), with specific reference to retained Hairy Joint Grass habitat, will be developed and provide management specifications relating to:

- delineation of the proposed Open Space Reserve network;
- protection measures for retained vegetation;
- weed removal and control;
- revegetation and landscaping within the Open Space Reserve system;
- ongoing monitoring and maintenance; and
- the provision of suitable access to facilitate management of Open Space Reserve areas.

Appropriate management of the population will be undertaken throughout the life of the development to ensure the long-term viability of Hairy Joint Grass within the Open Space Reserve. Details and specifications pertaining to maintenance, landscaping, access and monitoring of Open Space Reserve that supports Hairy Joint Grass populations will be provided in the OSMP prepared during the Detailed Design Phase.

Off-Site Measures

Areas proposed for off-site hairy joint grass protection and enhancement are shown in **Illustration 8.3**. As shown, two broad areas are proposed. The first, located closest to the Pacific Pines site, will involve plantings along the southern edge of the existing pond, along the southern edge of the adjoining sports fields site, and within the southern part of the adjoining Council-owned land (south part of Henderson Farm).

The second area shown in **Illustration 8.3** highlights a longer term vision that would see a larger area of hairy joint grass habitat linking the southern part of Henderson Farm to the existing hairy joint grass located in the northern sector of Henderson Farm. This could be dedicated as an adjunct to the nearby Ballina Nature Reserve to provide protection for the habitat in perpetuity.

The intention of the off-site retention and enhancement proposals is to establish an off-site reserve system to provide for:

- establishment of a self-sustaining system that reflects pre-existing vegetation types and ecotones that are considered to constitute natural Hairy Joint Grass habitat in the locality;
- creation of a habitat linkage between areas of protected vegetation that occur to the west and north of the site; and
- restoration of biodiversity values that have been lost in the locality through past land management practices.

Land to the north and west of the site has been subject to broad-scale vegetation clearance in the past and currently supports a mosaic of pasture paddocks, sugar cane crops and urban development. Consequently, native vegetation to the north of the site has been reduced to remnant patches that are physically isolated from larger tracts of intact vegetation held within the Ballina Nature Reserve. In this regard, the proposed off-site reserve system will provide a vegetated linkage between Hairy Joint Grass populations identified on a parcel of Council owned land to the west of the site and Hairy Joint Grass habitat associated with the SEPP 14 Wetland within the northern section of the adjoining Henderson Farm. The potential also exists for the proposed reserve to include, or provide linkage to, a small remnant of SEPP 26 Littoral Rainforest adjoining the north-western corner of the site.



Illustration 8.2 Hairy Joint Grass Indicative Retention & Enhancement On-Site



Illustration 8.3 Hairy Joint Grass Indicative Retention & Enhancement Off-Site



It is envisaged that Hairy Joint Grass habitat on the Council-owned land will eventually be dedicated to the State Government as an addition to the adjoining Ballina Nature Reserve. In this regard, it is noted that a specific management objective pursuant to the Ballina Nature Reserve Plan of Management is to '*enhance the viability of habitats by encouraging vegetation corridors off the Reserve where possible*'. The development of the off-site reserve in general accordance with this strategy will therefore contribute to broader biodiversity conservation measures and the ecological value of the adjoining Ballina Nature Reserve.

The Hairy Joint Grass Management Strategy (**Appendix C**) provides further detail as to how this off-site reserve will be embellished using seedlings of the species collected from areas within the site. The strategy also outlines a range of research and investigation measures that will be undertaken to ensure the success of both on-site and off-site retention and to add to the current knowledge of the species, which is sparse at best. Eventually, this research would lead to the development of a local recovery plan for this species.

8.2 Flooding

8.2.1 Flood Risk

Ardill Payne has undertaken an assessment of flood risk in relation to the proposed Concept Plan. This assessment is attached in the Engineering Report in **Appendix H**. The assessment indicates that three flood investigations have previously been undertaken that relate to the subject site. Initially, Ballina Shire Council engaged WBM Oceanics to undertake a Shire-wide Flood Study, which was adopted in 1998. The study included computer modelling of the flooding of the lower reaches of the Richmond River Floodplain between Wardell and Ballina. From this report the 1 per cent Annual Exceedance Probability (AEP) event was determined across the flood plain and minimum fill and floor levels were determined.

These flood heights have been adopted as part of Council's Combined Development Control Plan. In relation to the Pacific Pines Estate, a 1 in 100 year flood level of RL 1.8 m (AHD) has been adopted for the site.

As part of more detailed investigations of local flood impact caused by urban development and the detention effects of the constructed Water Quality Control Pond and local tides at the site, Ardill Payne engaged WBM Oceanics to undertake a site specific study of the Pines Estate in 2002. The results of that study indicated that the local flood levels could potentially reach RL 2.07 m at the Water Quality Control Pond site. This represents a 0.27 m increase over the original levels as identified in the 1998 Shire-wide Flood Study. A conservative fill level of RL 2.2 m was therefore recommended.

Sea level rise, associated with climate change, has the potential to increase local flooding, through more intense local storms and because elevated sea levels would result in 'back-up' of river flows. Ardill Payne has therefore recommended a final fill / flood level of RL 2.3 m to respond to potential climate change impacts.

8.2.2 Potential Impacts

Filling of the low-lying parts of the site has previously been approved by Ballina Shire Council. That filling was approved in conjunction with wider site works associated with Stage 3 of the previous Pacific Pines Estate, approved under Development Consent 1999/248.

A range of works approved by that Consent were commenced and undertaken, and so the approval to fill the low-lying parts of the site remains valid.

The extent of filling proposed as part of this Concept Plan has not changed markedly from the previous approval. Consequently, Ardill Payne has indicated that it is not expected that any significant change will occur to flood levels in the locality. As such, it is considered that the proposed filling to obtain flood

immunity is consistent with Council's Combined Development Control Plan and consistent with the New South Wales Floodplain Development Manual.

8.3 Integrated Water Cycle Management

8.3.1 Concept Plan

Ardill Payne & Partners have prepared an Integrated Water Cycle Management Plan for the Concept Plan. This plan is part of the overall Engineering Report prepared by Ardill Payne and is attached as **Appendix H**.

Water cycle management for the site has been designed based on Water Sensitive Urban Design (WSUD) principles. The Water Cycle Management Plan provides for treatment of stormwater from the site through a specific water treatment train incorporating at source treatment measures as well as subsequent pollutant and nutrient removal, with tertiary treatment provided at the end of the treatment train via the existing Water Quality Control Pond. These stormwater management measures are shown in **Illustration C7**.

The Concept Plan provides for on-site retention of stormwater via rainwater tanks at the individual lot scale and via the existing Water Quality Control Pond. The retained stormwater will be available for a range of domestic uses and, from the existing pond, for irrigation of public open space within the site.

Ballina Shire Council also has a policy to eventually supply treated effluent for domestic non-potable water supply. This policy will be accommodated within the development by construction of a dual reticulation water pipe system.

In summary, the water cycle management system provides for:

- continued use of the existing Water Quality Control Pond as a tertiary treatment system and main detention storage / recycling source for the proposed development;
- provision of small dry detention basins up-stream of the Water Quality Control Pond;
- provision of numerous primary small litter traps in stormwater collection pits;
- provision of a stormwater community education programme by the developer, describing why the strategy has been adopted and how it works;
- ongoing monitoring of stormwater quality and continued maintenance of the stormwater treatment train. Management of the Water Quality Control Plan will be taken over by Council in 2010, whilst management of the stormwater conveyance systems will be split between Council and land owners depending on specific land uses and future land ownership;
- provision of swales, infiltration and bio-retention systems in flatter areas;
- provision of recycled effluent and stormwater for irrigation and toilets;
- construction of swales and detention ponds out of the water table; and
- provision and maintenance of buffers to environmentally sensitive areas.

8.3.2 Project Application

Proposed Stormwater Discharge Points from the Site

The stormwater discharge points for stage one are identified in the Stage 1 Stormwater Management Plan, which is shown in **Illustration P4**. Details with respect to this proposal are contained in the Stage 1 Engineering Report, which is contained as **Appendix I**. As shown, treated stormwater will be discharged to North Creek at the end of the Stormwater Treatment Train.

Treatment of Stormwater from Road Runoff and Compliance with Chapter 13 of the Combined DCP

Stormwater quality from runoff is managed by a treatment train that consists of gross pollutant traps, infiltration, constructed bioretention facilities, swales and permeable paving where appropriate, with tertiary

treatment occurring in the WQCP. Ardill Payne advises that the theoretical modelling of the stormwater treatment train for the development footprint shows that it will meet the 'no pollutant increase' criteria required in Ballina Shire Council's Combined DCP (see **Appendix I**).

8.4 Soils

8.4.1 Contamination

Ardill Payne undertook a Preliminary Site Investigation for the subject site in November 2003. This report was prepared for and considered in the preparation of the previously approved SEPP 71 Master Plan for the site. The preliminary investigation included a desktop site history assessment as well as some preliminary soil sampling. It indicated that the site had been predominantly used in the past for the grazing of dairy cattle. The report suggests that sugar cane may have been grown for a short period but failed due to cane disease. The previous site owners indicated that no horticultural activities have been undertaken during the past 35 years and no chemicals had been used in the recent past.

The report also indicates that the Coral Cattle Dip is located to the north of site but is unlikely to have had any chemical carryover due to its topographical position. The 2003 report prepared accordingly found that the natural site soils were unlikely to have been contaminated by past activities.

A judgemental sampling pattern was adopted by Ardill Payne & Partners in their 2003 reassessment to ensure imported fill was suitable for residential use. Twelve samples were taken from various stockpiles on the site. The analysis indicated that soils typically exhibited elevated levels of chromium and manganese but were clear of any other contaminants. Further research indicated that this was a common finding for soils of volcanic origin. It is believed that the all fill material was sourced from the adjacent stages of the Pacific Pines development.

Composite soil samples exhibited elevated mercury levels, which were above acceptable limits for residential use, but suitable for commercial / industrial and open space and recreational use. The mercury was found to be tightly absorbed to soil particles and thus unlikely to leach. All fill material was classified as inert in accordance with EPA guidelines. Soils with elevated mercury levels were also outside of the Concept Plan area. The Ardill Payne report concluded that fill was suitable for use under sports fields, road embankments and below commercial uses. It also concluded that it would be suitable for residential use if subject to capping with at least 300 mm of virgin excavated natural material. These stockpiles have subsequently been used for the construction of the Water Quality Control Pond and playing fields. There are no longer any stockpiles of fill material on the site.

The Concept Plan proposes that any future fill required for the site will be sourced from the northern slopes of the subject site and will therefore not require any further sampling or investigation.

Ardill Payne has reviewed their previous report as part of the preparation of this Concept Plan and has advised that no further development, other than construction of the Water Quality Control Pond and approved filling of the sports fields and adjacent residential land, has occurred on the site since the original 2003 investigation. They are therefore of the opinion that the previous preliminary site investigation is considered acceptable for lodgement as part of this new application for a Concept Plan. Their latest review of the previous Preliminary Site Investigation report is included in the Engineering Report attached as **Appendix H**.

8.4.2 Acid Sulfate Soils

Gilbert and Sutherland undertook an acid sulfate soils assessment for the subject site in March 2004, specifically in relation to the then proposed Water Quality Control Pond, which was subsequently approved and constructed. In summary, the report found that potential acid sulfate soils (PASS) were observed in soils between 0.75 m and 3 m below natural surface levels in the location of the pond. These levels were

not converted to AHD, however an indicative natural surface level of 1.2 m AHD is assumed based on the site survey information.

The report identifies three soil types found at the site that exhibited PASS. These include coarse sands, silty sands and silty clays in an increasing severity of PASS. A geotechnical investigation of the entire site has been undertaken by Ardill Payne (see **Appendix H**) and indicates that the occurrence of PASS soils is unlikely to occur above the 10 m AHD contour (limit of alluvial soils). This finding is consistent with Sheet 2 of Ballina LEP 1987, which indicates the extent of Class 2 and 5 acid sulfate soils approximately follows the 10 m AHD contour (see **Illustration 6.3**).

Class 2 soils require an assessment for all works below the ground surface or which will lower the water table beyond 1 m. The development proposes to borrow earth from the northern section of the site to be used as fill material in the lower lying central areas. This will increase the ground level adjacent to the WQCP from around 1.2 m to approximately 2.3 m AHD. The surface level, therefore, will be increased by approximately 1.1 m. The majority of site excavation works are therefore not likely to occur within the PASS soil profile which is approximately 1.85 m below the finished surface level.

8.5 Geotechnical

8.5.1 Concept Plan

Ardill Payne has carried out a preliminary geotechnical study of the site as part of the proposed Concept Plan (see **Appendix H**). The fieldwork for this study was undertaken in February 2002. Although this work was undertaken some years ago, Ardill Payne considers that the site remains relatively in the same state (with the exception of a constructed water quality control pond) and the findings are still applicable and relevant to the current proposal.

The aim of the investigation was to assess subsurface and geotechnical conditions at the site in order to provide recommendations and advice on earthworks, AS2870-1996 Classifications and Construction

The geotechnical assessment found that, subject to satisfactory consolidation and treatment of the type 1 soils in the lower sections of the site, conventional footing designs to Class M standard under AS2870-1996 *Residential Slabs and Footings* would be suitable.

The Ardill Payne report also recommends that, where housing is proposed within areas where slopes exceed 25 per cent, additional geotechnical investigation and advice be sought on slope stability and design criteria for individual houses. The report notes that these areas are contained in a number of very large blocks which have alternative building sites to those on slopes greater than 25 per cent.

8.5.2 Project Application

Ardill Payne has prepared a geotechnical assessment as part of the Engineering Report for Stage 1 Project Application (see **Appendix I**). The report indicates that Stage 1 does not contain any land with slopes greater than 25 per cent. They advise that conventional building construction systems are applicable to this site and, upon consolidation treatment of the soft soils in the centre of the site, conventional footing designs to Class M standard under AS2870-1996 *Residential Slabs and Footings* would be suitable.

8.6 Earthworks and Filling

Ardill Payne has carried out investigations into earthworks on the site (see **Appendices H and I**). They advise that the lower section of the site is to be filled under an existing development consent issued by Ballina Shire Council. This area is to be over-filled to allow for expected consolidation of the soil in this area. Material for filling is to be obtained from excavations around the surrounding hills and predominantly from the work on the northern ridge and slopes of Stoneyhurst Road.

Illustration P5 shows the location of bulk earthworks and filling on the site. As shown, material will be cut from the northern side of the existing ridge in the north of the site and from the base of the southern facing slope below this ridge. The material will be used to fill low lying central part of the site and areas adjacent to the main entry road. The filling design will ensure that protection of existing areas of Hairy Joint Grass within the future parkland is protected. Detailed site surveys are being undertaken to accurately locate the species. This information will become a key design criteria for the filling in this area.

8.7 Traffic and Access

8.7.1 Concept Plan

The main roads into and out of the site are Montwood and Hutley Drives, with minor road connections being to Stoneyhurst Drive, Lakeside Way and Fox Valley Way. A detailed traffic assessment has been undertaken by Ardill Payne (see **Appendix H**). This assessment has estimated the likely future traffic generation associated with the proposed development, based on RTA criteria, other relevant studies and on traffic counts undertaken by Ballina Shire Council quantifying the traffic currently using Montwood Drive.

The Ardill Payne assessment concludes that the proposed development can be adequately served by the existing roads, with the final traffic loads being less than their environmental capacity and within the appropriate level of service.

At a strategic level, Ballina Shire Council has been investigating various traffic options for high use roads through and around Lennox Head since 2001. A road reserve was previously dedicated through the Pacific Pines site to be used as a future sub-arterial bypass road, connecting Hutley Drive southwards to North Creek Road. This road reserve is located west of the existing WQCP and is still available to Council.

As shown in the Concept Plan (**Illustration C1**), the proposed development will utilise the northern section of this reserve, from about the WQCP to the northern boundary, to extend Hutley Drive into the site and provide access to the neighbourhood centre and the remainder of the development. It is not, however, proposed that the southern section of this road reserve will be constructed as part of the development. The traffic assessment undertaken by Ardill Payne (see **Appendix H**) indicates that construction of this southern link is not required to service the traffic generated by the development.

An internal road hierarchy has been prepared in response to traffic loads and function. This internal road hierarchy is shown in **Illustration C6**, with road cross-sections showing road, pavement and verge widths and well as landscape treatments, contained in **Appendix G**.

The road hierarchy plan provides for a range of road types depending on usage and location. Generally the roads are to be tree lined with defined parking areas. Road widths also vary according to road type and location and are generally within 18 m wide reserves. Carriageways vary from 5.8 m plus parallel parking to 7 m, depending on road type. Water Sensitive Urban Design features and materials selection are to be incorporated to treat stormwater runoff and identify features of the road system or open space areas.

The concept plan has a high level of connectivity both within and to the surrounding community. Both Hutley Drive and Main Street are proposed as traditional two-lane streets with on-street parallel parking. Shade trees would be planted in the parking lanes to visually narrow the street and provide shade for pedestrians and parked cars. Slow points and kerb extensions at intersections will reduce the crossing distance for pedestrians and slow the speed of turning traffic.



Most of the residential streets will be narrower than typically found in Lennox Head. This is to better fit streets to the hillsides and to help slow traffic. It also contributes to sustainability by reducing the amount of paved area. Most streets will have generous footpaths and shade trees.

Key streets will be designed as traditional north coast avenues, with large trees in wide grassed parking areas. These will include the Stoneyhurst Drive extension along the northern ridge. This will allow an impressive avenue of Norfolk Island Pines to be established as a prominent ridgeline feature, complementing the existing pine skyline at North Creek Road and Henderson Farm.



Provision has also been made for a link road to Henderson Farm to the west. This has been designed and located to minimise future cumulative impacts on the site and provides suitable buffers to ecologically sensitive areas such as the SEPP14 Wetland and the North Creek Nature Reserve

8.7.2 Project Application

Stage 1 of the Concept Plan proposes the construction of the extension of Hutley Drive, the internal connection to Montwood Drive, Lakeside Way, Fox Valley Way. It will also include construction of parts of various new, as yet unnamed, internal roads.

Ardill Payne has prepared a Traffic and Access Plan for Stage 1 of the Concept Plan (see **Appendix I**). This is to support the Concept Traffic Plan also prepared by Ardill Payne for the Concept Plan.

The Stage 1 Report concludes that this stage of the proposed development can be adequately served by the existing roads, with the final traffic loads being less than the environmental capacity of the existing road system.

8.8 Bushfire

A detailed bushfire assessment is contained in **Appendix M**. The report indicates that Ballina Shire Council's Bushfire Prone Land mapping shows that:

- a small area in the south-western portion of the site is located within a 100 m buffer of a category 1 area of bushfire risk; and
- a small area in the north-western corner is located within a 30 m buffer of a category 2 area of bushfire risk and is also located within vegetation category 2.

Because of this mapping, the whole of the site can be classified as 'bushfire prone' and the assessment has therefore investigated the proposed development in accordance with the requirements of *Planning for Bushfire Protection 2006* (PBP, 2006).

The site has been zoned for urban purposes since around 1989. The development constitutes the remaining stages of the Pacific Pines Estate, with four previous stages approved and constructed. Previous subdivision layouts have been approved for the site, in conjunction with the original urban zoning and in 2006 associated with a Master Plan adopted by the Minister for Planning under the provisions of *State Environmental Planning Policy No. 71 – Coastal Development*.

The land is surrounded by existing residential development to the north, east and south. The majority of the site is cleared pasture land and, as indicated above, Council's bushfire mapping affects only the south-western and north-western margins of the site.

Once developed, only the western fringes of the development would be subject to bushfire hazard, as this would be the only part of the site in proximity to vegetated land.

The bushfire assessment report has examined the nature of vegetation located to the west of the site and has calculated Asset Protection Zones (APZs) in accordance with PBP, 2006. It concludes that the development will meet requirements in relation to APZs.

The report has also assessed access and servicing and notes that a dual reticulated water supply will be provided throughout the development. Hydrants will be provided in accordance with requirements.

Within the subdivision, the internal roads do not comply with the access requirements of PBP, 2006. However, as noted above, the bushfire risk will only be relevant to the western boundary. Access to this area will be by way of the extended Hutley Drive, which will be constructed as a local collector road.

8.9 Heritage and Archaeology

8.9.1 Indigenous Heritage

A Cultural Heritage Assessment, prepared by Everick Heritage Consultants, has been carried out as part of this proposal (see **Appendix J**).

An archaeological assessment was conducted over the subject land with the assistance of the Jali Local Aboriginal Land Council (LALC) in 2003 by Adrian Piper Heritage Consultant. No archaeological sites were found in the 2003 investigations and recommendations were formulated with the assistance Jali LALC for the preservation of various attributes of the site. The report by Everick provides a desktop review of this previous work and a review of the DECC, AHIMS register.

A comprehensive consultation process was also undertaken by Everick, which involved the placing of a newspaper ad in the Northern Star on 30 and 31 May and 2 June 2007. A mail out was also sent to interested parties inviting input into the process. An onsite meeting was held with Jali LALC officer, Mr Marcus Ferguson to discuss previous studies and also any potential issues with the site.

The consultation process did not result in the identification of any sites or areas to which any cultural heritage significance is attached. The archaeological assessment prepared by Everick found that there were no changes to the results of the field inspection and report carried out in 2003

The report provides three recommendations, which relate to:

- the Jali LALC being engaged to monitor initial investigations;
- a recommended protocol being adopted if any materials of an Aboriginal origin are found on the site during excavation works; and
- contractors being advised of the statutory requirements of the National Parks and Wildlife Services Act 1974 that in regard to Aboriginal that it is an offence to knowingly disturb, deface, damage or destroy or permit the disturbance, defacement, damage or destruction of a relic without first obtaining written consent to do so from the Director General of the DECC.

8.9.2 Non-Indigenous Heritage

Searches for Non-Indigenous sites of heritage significance were conducted, examining the Ballina Local Environmental Plan 1987, Australian Heritage Council Database Website, the National and NSW Heritage Office databases and the North Coast Regional Environmental Plan.

There are no identified items of heritage significance that will be impacted upon by the proposed Concept Plan or Project Application. It is therefore considered that there is no heritage or archaeological constraints that would prevent the proposed Concept Plan and Project Application for Stage One being approved.

8.10 Noise

Carter Rytenskild Group, traffic and acoustical consultants, have prepared an Environmental Noise Impact Assessment for the development (see **Appendix N**). The study investigates environmental noise impacts of the proposed mixed residential and commercial use of the site and associated traffic noise. It used environmental noise logging and modelling to assess road traffic noise impacts and impacts associated with the commercial component of the proposed development in relation to nearest noise sensitive land uses. The report also makes recommendations regarding acoustic treatment and management principles in response to these predicted noise levels.

The assessment involved the use of a calibrated logger located on Hutley Drive to the west of Silkwood Road, which logged noise statistics in 15 minute intervals. The report then assessed the potential noise impacts resulting from increased road traffic volumes in accordance with the New South Wales EPA *"Environmental Criteria for Traffic Noise"*. Based on the results, recommendations were made on measures required to mitigate any potential noise impacts.

The findings of the study reveal that the commercial area has basic noise mitigation measures integrated into the overall design, with buildings located so that they screen the most active parts of the commercial node from the residential areas. The tavern and community hall are also located away from residential premises, with the nearest residential use being the retirement community. As the retirement buildings will be multi-unit design, there are opportunities to locate open space areas away from the tavern and treat the buildings in the detailed design stage.

Road traffic noise on Montwood Drive will be below the noise limit criteria and is therefore expected to be in compliance with the RTA road noise requirements. Road traffic noise impacts from Hutley Drive are

predicted to exceed the criteria at the most exposed facades of dwellings fronting the road. Compliance can, however, be achieved in an outdoor recreation space if this area is located in the screened side of a building to the road (e.g. using the building as an acoustic barrier). Standard building construction will be sufficient to achieve the indoor criteria as specified in AS/NZ2107.

8.11 Infrastructure Provision

Ardill Payne has undertaken an investigation of utilities and service requirements for the proposed Concept Plan (see **Appendices H and I**), looking at the availability of water, sewerage, electricity and telecommunications services.

8.11.1 Water

Potable Water is supplied to Ballina Shire Council in bulk by Rous Water. Council then provide reticulation to the community as a water supply authority. Ardill Payne's investigations indicate that Ballina Shire Council's strategy for distribution to the Petrac Pacific Pines development is to augment the existing sub-main supply down Montwood Drive and Hutley Drive with a dedicated Pacific Pines reservoir, to be located below North Creek Road on land outside of the Pacific Pines site. Council's Development Servicing Plan also provides for pressure zone mains to be installed through the middle of the Petrac Pacific Pines site.

The Development Servicing Plan programs construction of the reservoir and mains by 2008. Ardill Payne advises that this timing is unlikely to be achieved as Council's engineering staff has advised that future augmentation is unlikely to proceed until further development in the locality commences. At this time, Ardill Payne is currently liaising with council to clarify. Council has undertaken to provide this information as soon as possible. However, Ardill Payne report that previous advice from Council, and anecdotal evidence, indicates that the extension of sub-mains in Hutley and Montwood Drives will allow for adequate water supply to be available to the site for some years, without the need for the new reservoir.

Council also has a water re-use policy and intend to construct a second reservoir, located next to the main potable water reservoir, to hold reclaimed water provided from the nearby Lennox Head sewage treatment plant. As indicated above, dual reticulation is proposed throughout the proposed development, so that all lots will be able to make use of this reclaimed water supply when it becomes available.

8.11.2 Sewerage

Sewage generated by the Pacific Pines site will be treated via the existing Lennox Head Sewerage Treatment Plant. Sewage will flow from the site to an existing pump station adjacent to the Water Quality Control Pond, where it will be pumped to the Lennox Head Sewerage Treatment Plant via an existing rising main. Ardill Payne's investigations indicate that the Lennox Head Sewerage Treatment Plant has sufficient capacity to receive and treat sewerage from the Pacific Pines site, subject to the implementation of Ballina Shire Council's Development Servicing Plan.

8.11.3 Electricity

Power supply will be provided by Country Energy by installation of transformers and underground power reticulation, to be installed at the developers cost. Country Energy have advised Ardill Payne & Partners that, although specific planning for the Pacific Pines Estate has not yet commenced, it considers that it will be able to provide power to the proposed development.

8.11.4 Telecommunications

Standard phone services are installed free of charge by Telstra. Ardill Payne has contacted Telstra in regard to the proposed development and Telstra has yet to respond. Ardill Payne however, considers it is likely that telecommunication services will be available to the proposed development.

The proponent is also investigating provision of additional telecommunication services in order to provide the latest technology for residents and businesses in the new estate. Petrac have been in discussions with Telstra about their Smart Communities Services as well as other telecommunication companies who provide similar services.

8.11.5 Developer Contributions

Petrac proposes a wide range of sporting, recreational and community facilities for new and existing residents in the North Creek Locality. These facilities include sporting fields and associated infrastructure (subject to a separate approvals process), a community hall and public open space in the form of high quality recreation areas that will provide a high level of amenity to new and existing residents in the locality. This is in addition to all standard infrastructure such as water, sewer, roads, electricity and telecommunications.

8.12 Visual Impact

Deicke Richards has prepared a Visual Assessment Report for the Pacific Pines Concept Plan, which is included as **Appendix K**. The site is currently vacant, with the only improvements being the previously constructed WQCP. The majority of the site is otherwise rural in character consisting of paddocks and scattered vegetation. Part of the site, west of the Hutley Drive road reserve, is densely vegetated however this section of the site is not included for proposed development in the Concept Plan.

Views from the site are generally to the west with the focus of these views being the existing pond. The site is surrounded by essentially urbanised areas with the exception of the Ballina wetlands and farming land to the west. Most of the site is only visible within the immediate visual catchment, with the exception of the ridgeline to the north of the site, which can be viewed from some areas to the north.

The proposed development will result in much of the site becoming urbanised. The existing character of the site will accordingly be substantially altered. The Concept Plan provides for a number of proposed urban design strategies to ensure visual impact is minimised, which include:

- retention of significant vegetation on the site;
- provision of a number of high quality open space and recreation areas and parks;
- embellishment of the WQCP with further plantings and public space in the form of a boardwalk and formalised passive recreation areas to ensure it remains the focus of the site;
- provision of neighbourhood centre and retirement community adjacent to the pond to act as an urban focus for the site;
- provision of landscaped bicycle/walkways through the site;
- landscaping and embellishment of the existing brook that runs through the site;
- provision of vegetation buffers from areas of ecological significance and sensitivity;
- plantings on the northern ridgeline of Norfolk Island Pines to match existing;
- regrading of the of the northern face of the prominent ridgeline on the northern section of the site to provide a less steep gradient; and
- provision of vegetated buffers to be implemented as part of a forward planting scheme to assist in minimising the visual impact on the this location when viewed from areas to the north.

8.13 Community Infrastructure and Future Demographics

A community needs assessment has been undertaken, based upon analysis of the latest Census of Population and Housing results, demographic forecasts for Pacific Pines and Department of Sport and Recreation provision standards (see **Appendix O**). The assessment includes:

- assessment of the availability and adequacy of existing community and open space facilities within the Lennox Head area;
- analyse the ultimate impact on facilities generated by the new 'Pacific Pines' community; and
- evaluation of the community need response within the proposal.

The Lennox Head area has experienced consistent growth in recent years, with a current estimated residential population of around 7,500 persons. Growing in excess of 4 per cent per annum and well above the shire wide average, Lennox Head is growing steadily as a proportion of the total shire population, as indicated below in **Table 8.1**.

Table 8.1 Population Growth (1996 – 2006)

	<i>1996</i>	<i>2001</i>	<i>2006</i>	<i>1996-2001</i>	<i>2001-2006</i>
Lennox Head	4,801	6,133	7,595	5.0%	4.4%
Ballina Shire	33,887	36,636	38,461	1.6%	1.0%
Proportion of Shire	14.2%	16.7%	19.7%		

Source: ABS, Census of Population and Housing, 2006

In terms of age profile, the Lennox Head area is considerably younger than the wider Ballina Shire, which compared to other local government areas, has a very high proportion of retirees, aged 65+ (see **Table 8.2**)

Table 8.2 Existing Lennox Head Population Profile (including Skennars Head)

<i>Age Group</i>	<i>Lennox Head</i>	<i>Ballina Shire</i>
0-19	29.9%	25.4%
20-29	8.9%	8.6%
30-39	13.9%	11.4%
40-49	17.6%	14.7%
50-59	14.5%	14.9%
60-69	7.9%	10.5%
70-79	5.1%	8.5%
80+	2.2%	6.2%

Source: ABS, Census of Population and Housing, 2006

Based on the existing population and age profile, an assessment has been undertaken of open space needs. Based on relevant standards, the analysis shows that there is an existing shortfall in open space within the Lennox Head area. Specifically, the analysis indicates that while there is an adequate provision of local and district parks, there is a current shortfall of about 5.9 ha of sporting fields. This result is consistent with the results of community consultation which highlighted significant excess demand on existing sporting facilities.

As indicated previously, Petrac is committed to the completion of the sporting fields development commenced by the previous land owner on adjacent land previously dedicated to Council. Existing approvals are in place for the provision of a range of fields and associated facilities. Following continued consultation with the Lennox Head Combined Sports Association, Petrac will be seeking slight modifications to this approval, through applications to Ballina Council. The provision of sporting fields, while linked to the overall site development, is not part of this Concept Plan application.

Based on the Department of Sport and Recreation standard the ultimate pines population will generate demand for an additional 4.6 ha of open space; being 2.8 ha of sporting fields and 1.8 ha of local / district parks.

The Pacific Pine development will deliver some 18.4 ha of open space; not including the adjacent sporting fields.

The ultimate dwelling mix will provide an ultimate population of some 1,750 residents on development completion. The data is, of course, indicative at this stage, as future stages of the development will be subject to additional design and approval.

With the purchase of the Pacific Pines Estate and the approved master plan, Petrac took responsibility for development of a range of additional community facilities. Based on consultation with the local community, Petrac sort to confirm the relevance of the existing approved facilities and evaluate other options, which may better meet future need.

An assessment of child care need highlighted a significant short-fall in the Lennox Head area, with only a small 46 place ABC Developmental Learning Centre located on North Creek Road. This opportunity was confirmed by the 2007 Community survey, where an overwhelming majority supported inclusion of a childcare facility as part of the development mix.

Other community facility opportunities that received strong support and would ultimately form part of the design testing process included:

- temporary provision of a community centre in shop fronts;
- construction of 300 m2 community hall for use as a venue for public meetings, music, drama, and classes such as yoga and martial arts;
- creation of an arts and business enterprise centre;
- provision of temporary business space in shopfronts;
- investigation into the potential demand for a medical centre; and
- a centre for artistic activities.

8.14 Off-site Impacts

Careful consideration has been given in the design of the Concept Plan to ensure all potential impacts are identified and addressed to ensure that no significant impacts occur on adjoining properties, the surrounding locality or to any nearby waterways / wetlands and areas of ecological significance.

Potential impacts and measures to address these impacts have been identified previously in this Environmental Assessment Report, and are summarised below:

- stormwater will be captured and treated to tertiary level via a comprehensive treatment train designed to ensure the quality of water leaving the site is of a higher quality than that currently leaving the site in its pre-development state;
- a comprehensive construction plan has been prepared and will be implemented prior to any construction works commencing. This Construction Plan will ensure the latest standards and practices are implemented on-site to ensure erosion and sedimentation is captured prior to entering any water course;
- buffers will be created on-site to ensure adequate set backs are achieved from ecologically significant areas that exist on and adjoin the property;
- a noise impact assessment has also been carried out, which demonstrates that, subject to some design recommendations, that the proposed development will not have an adverse impact on adjoining areas of the site;

- a mosquito management plan has been prepared do ensure the development does not increase mosquito risk on adjoining properties;
- an acid sulfate soils management plan has been prepared to ensure that no exposure and leaching of PASS occurs;
- a flood assessment has been carried to ensure that flood risk to properties down stream are not affected by increased flood levels;
- a visual assessment has been carried out that identifies potential impacts on the visual amenity outside of the site and recommends various strategies to mitigate these potential impacts;
- an ecological assessment has been prepared to demonstrate that the project will not significantly impact on threatened species in adjoining ecologically sensitive areas;
- an assessment on the future demographics of the area has been prepared to demonstrate the proposed project will not create a significant demands on existing community infrastructure. The development provides for community and sporting facilities to cater for the needs of the Pacific Pines community and surrounding community; and
- a traffic management plan demonstrates that the existing road connections to the subject site will be able to adequately handle the additional traffic generated from the proposed development without creating adverse traffic impacts.

8.15 Development Staging

A staging plan is shown in **Illustration C5**. The staging can be summarised as follows:

- Stage 1 (see Illustration 2.3) involves the creation of 49 residential allotments and open space and pedestrian links, 6 super lots containing the various components of the proposed neighbourhood centre, community use facility, the retirement community and associated open space and conservation areas and a super lot to be used for a small medium density development, and the associated road network that will create access to these allotments. This will be constructed as Stage 1A, being the 49 conventional residential lots, and Stage 1B, being the remainder. These allotments will also be serviced by a full range of water, sewer, electricity and telecommunication services;
- Stage 2 – residential allotments, medium density housing and parkland and associated road network;
- Stage 3 – medium density housing, residential allotments and road network;
- Stage 4 – residential allotments and road network;
- Stage 5 – residential allotments, parkland and road network;
- Stage 6 – residential allotments and road network;
- Stage 7 – residential allotments, medium density housing, parkland and road network;
- Stage 8 - residential allotments, medium density housing, parkland and road network;
- Stage 9 – residential allotments, parkland and road network;
- Stage 10 – residential allotments, medium density housing, parklands and road network; and
- Stage 11 – residential allotments and road network.

Petrac envisage proceeding with design and approval for the neighbourhood centre and the retirement community immediately upon Part 3A approval for the concept. They would ideally like to link the construction of these facilities with the construction of the Stage 1 subdivision.

8.16 Other Impacts

8.16.1 Mosquito Risk

Mosquito Consulting Services Pty Ltd has undertaken a Mosquito Impact Assessment of the proposed development (see **Appendix L**). The Mosquito Assessment addresses the potential impacts of nearby

known and suspected mosquito breeding areas on future residents of the development and includes consideration of relevant sections of Ballina Shire Council's Combined DCP.

The assessment is based on site data gathered via mosquito collection and characterisation of potentially relevant breeding sites. The report notes that mosquito populations respond rapidly to changes in weather conditions and can increase dramatically following periods of wet and warm weather. During such times, residents within the region may experience higher exposure to mosquitoes than what is characterised as typical weather conditions.

The findings and conclusions of the report reveal that the Pacific Pines development provides an opportunity to eliminate a portion of existing fresh water mosquito breeding habitat from the subject site. Management of the remaining mosquito risks can be achieved through design to provide open space buffers clear of any significant vegetation by the use of playing fields, common roadways and the water quality improvement pond and other open space areas between residential allotments and the site boundary. The realigned watercourse, previously constructed in the sites' north-west, has the potential to produce the important vector mosquito, *Culex annulirostris*. The report contains a number of recommendations for the watercourse construction to adequately manage this risk. These recommendations will be adopted in the landscaping / rehabilitation of this watercourse.

The report also states that conventional use of screening on housing within the development should be required by Council at the Development Application stage.

The report finds that although the subject site, as with the whole of the Ballina region, can experience extremes of mosquitoes on occasion, the evidence of mosquito collection and its location indicate the development site currently has moderate exposure, reducing to relatively low exposure in its developed form. The report finds that subject to limitations and savings contained in the report and the implementation of the recommendations contained in the report, that the potential mosquito risk can be adequately managed to meet the requirements of Ballina Shire Council's DCP requirements.

The risk management recommendations contained in the report are:

- exposure to *Verrallina funerea*, *Culex annulirostris* and *Aedes procax* will be effectively managed by development of the site eliminating ground pool breeding sites or interposing clear open space between breeding sites and residential allotments;
- street lighting should be provided with shields or yellow filters to minimise artificial light attracting mosquitoes from the Ballina Nature Reserve into residential areas;
- exposure to *Aedes vigilax* and mosquitoes in general will be effectively managed in residential allotments by standard type mosquito screening fitted to residential dwelling windows and external doors to restrict entry of mosquitoes during occasional periods of high mosquito numbers;
- mosquito awareness material should be made available to residents of Pacific Pines;
- rainwater tanks should be protected by having mosquito proof screens fitted to openings including inspection openings and overflows. Such screens should be made of durable material such as stainless steel. The mesh size should not provide an aperture of more than 1 mm;
- the proposed watercourse engineering specifications should include the following criteria within its design and also generally comply with The Constructed Wetland Manual Volume 1, Chapter 13:
 - the edge of the constructed watercourse should be as steep as practical (within the design standards for public safety) to minimise shallow water (< 500 mm) suited to mosquito breeding;
 - normal water levels within the watercourse ponds should maintain at a minimum of 500 mm water depth except for the margins;
 - open pond areas should be maintained free of emergent vegetation used by mosquito larvae as harborage and protection from predator species such as fish; and
- monitoring of mosquito production should be undertaken periodically to assess the performance of these mosquito management criteria.

8.17 Subdivision Layout, Desired Future Character and Sustainability

Deicke Richards has prepared an Urban Design Report (see **Appendix E**), the purpose of which is to discuss the various design objectives of the site and also demonstrate how the design of the proposal has been carried out to address the various constraints and opportunities of the site.

The design objectives for the Stage 1 Project Application are:

- integration with existing surroundings;
- optimal routes for walking, cycling and public transport;
- protection and enhancement of environmental features;
- street and drainage network to better fit the natural slopes and valley lines; and
- provision of open space and other community facilities.

The subdivision layout has been designed to ensure linkages exist with the proposed neighbourhood centre, community and sporting facilities and passive open space which makes the site highly walkable. The layout also demonstrates a high degree of interconnectivity and creates a particularly permeable and legible residential precinct. Key streets will be designed as traditional north coast avenues with large trees in wide grassed parking areas to provide visual amenity to future residents.

Building design will need to comply with the development controls outlined in the Concept Plan. These controls discourage houses that are conventional suburban brick and tile designs which require significant cut and fill on sloping land and provide for housing that:

- optimises community interaction and amenity;
- is sensitively built on slopes so that it harmonises with the landform;
- incorporates environmentally sustainable building design features that respond to the North Coast climate;
- creates a distinctive character that refers to building traditions of the Far North Coast; and
- provides a choice of housing and responds to the diverse housing needs including the provision of smaller houses for older people and also affordable housing.

8.18 Cumulative Impacts

The future development of land in the North Creek precinct has been examined and planned within Ballina Council's *Lennox Head Community Aspirations Strategic Plan* (2002) and the *Lennox Head Structure Plan* (2004).

The Pacific Pines site is noted as an existing urban area within these strategic documents, given its existing zoning and that it has had an adopted residential layout in place (as a DCP) since at least 1990. However, the Lennox Head Structure Plan nominates another six sites as 'candidate urban release sites in the immediate vicinity of North Creek (i.e. east of North Creek Road).

All of these sites have been included in the Council's Urban Release Plan and significant preliminary assessment has been undertaken at a strategic level. As part of this work, existing environmental protection zones have been reviewed and broad land assessment undertaken to identify additional land that warrants protection by way of environmental protection zoning. In part, this environmental assessment has been based on protection of the Ballina nature reserve and the associated SEPP 14 wetland area around North Creek.

It is reasonable to assume therefore, that, subject to further more detailed site-specific environmental assessment and design, future development of all of the nominated candidate release sites can occur without detrimental impacts on the North Creek environment.



Statement of Commitments

9.1 Introduction

This Environmental Assessment has identified a number of commitments for the implementation of measures that will mitigate environmental, social and economic impacts. The commitments below are based on all of the environmental assessment and analysis that has been undertaken for the project. They provide a commitment from the proponent to ensure the ongoing sustainability of the project.

9.2 Statement of Commitments

Tables 9.1 and 9.2 set out the key commitments to be undertaken by Petrac as identified throughout this Environmental Assessment Report and the supporting reports. These commitments will ensure that the project is carried out in a manner that minimises environmental, social and economic impacts. They also confirm Petrac's commitment to complying with further legislative requirements.

Table 9.1 Draft Statement of Commitments – Concept Plan Approval

<i>Issue</i>	<i>Commitment</i>	<i>Actions and Timing</i>	<i>Responsibility</i>
General	The developer will carry out the development in accordance with this Environmental Assessment Report, prepared by GeoLINK and dated December 2007; in accordance with plans prepared by Deicke Richards; and in accordance with the specialist supporting reports.	Detailed plans will be submitted to Council for approval prior to issue of a construction certificate for Stage 1, demonstrating compliance	Petrac and consultant team
Ecological	<i>Hairy Joint Grass</i> The developer is committed to the implementation of the Hairy Joint Grass Management Strategy, prepared by Cardno and dated September 2007 (see Appendix C).	Identification and demarcation of Hairy Joint Grass Populations to be retained on site. Manipulation of populations to enhance seedling germination. Translocation of seedlings. Collection of Hairy Joint Grass seed.	GeoLINK/ Cardno
	A Vegetation Management Plan (VMP) will be prepared for the site that addresses the implementation of the Hairy Joint Grass Strategy. The VMP will also provide management measures for all on-site plantings and vegetation removal.	The VMP will be submitted to Council for approval prior to the issue of a Construction Certificate for Stage 1.	GeoLINK / Cardno

<i>Issue</i>	<i>Commitment</i>	<i>Actions and Timing</i>	<i>Responsibility</i>
	<p><i>Weed Management</i></p> <p>The VMP will address weed management. Weeds should be controlled in landscaped areas and areas of retained vegetation. Known environmental weeds such as Camphor Laurel within areas of Littoral Rainforest should be gradually removed by stem injection</p>	<p>The VMP will be submitted to Council for approval prior to the issue of a Construction Certificate for Stage 1.</p>	<p>GeoLINK/ Cardno</p>
	<p><i>Site Plantings</i></p> <p>Vegetation will be established on site as street trees and landscape plantings.</p>	<p>Plantings will occur during construction of all stages. Details to be outlined in the VMP and detailed landscape plans will be submitted to Council with each subsequent DA for subdivision / development.</p>	<p>GeoLINK / Cardno</p>
	<p>Vegetation removed during clearing will be retained and mulched for later use on the site to prevent the introduction of weed seed being imported in mulch from offsite.</p>	<p>Vegetation removal will occur during initial construction stages, with mulch used in landscaping for all stages. Details to be outlined in the VMP.</p>	<p>GeoLINK/ Cardno</p>
	<p><i>Physical Damage during Construction</i></p> <p>Areas of vegetation to be retained will be clearly delineated with temporary fencing during works.</p>	<p>Protective fencing will be erected prior to commencement of construction works, in accordance with the approved VMP</p>	<p>GeoLINK / Cardno</p>
	<p>Trees to be removed will be monitored by personnel (with wildlife caring qualifications) immediately prior to, and during removal to ensure that no animals are directly impacted by the works. Any trees containing fauna will be retained until the species leaves the site or the nests have been vacated. If any animals are injured during the proposed works, they will be immediately transported to a wildlife carer for rehabilitation and release.</p>	<p>Monitoring will occur during all construction works, in accordance with specifications established in the approved VMP.</p>	<p>GeoLINK / Cardno</p>

<i>Issue</i>	<i>Commitment</i>	<i>Actions and Timing</i>	<i>Responsibility</i>
	<p><i>Impacts on Wetland Vegetation</i></p> <p>The boundary of the wetland area will be clearly delineated to prevent vehicles or persons entering the wetland area. Fencing will be provided to discourage the dumping or storage of materials within the wetland area. A sediment control plan has been prepared and will be implemented to prevent the input of sediment into the wetland area;</p>	<p>Protective fencing will be erected prior to any construction activities.</p> <p>A detailed sedimentation / erosion plan will be submitted to Council for approval prior to the issue of a Construction certificate for Stage 1.</p>	GeoLINK / Cardo, Ardill Payne & Partners
	<p><i>Impacts on Plant Reproduction</i></p> <p>Retained areas of vegetation will be rehabilitated and buffered.</p>	Vegetation rehabilitation will be carried out in accordance with the approved VMP	GeoLINK / Cardno
	<p>Landscape plantings will include a majority of species that will provide forage habitat for nectarivorous and frugivorous birds and bats.</p>	<p>Details of plantings will be submitted to Council for approval prior to the issue of a Construction certificate for Stage 1. All plantings will be established on site during construction works and will be maintained for a period of 12 months following construction</p>	Deicke Richards / GeoLINK / Cardno
Integrated Water Cycle Management	<p>Petrac will commit to constructing the creek corridors to convey major flood waters and to design of the subdivision such that the flood planning levels are set at those recommended within Council's relevant Floodplain Management Plan;</p>	<p>Stormwater management details and details of all earthworks will be submitted to Council for approval prior to the issue of a Construction certificate for Stage 1. Approved stormwater controls / management measures will be constructed prior to the issue of a Subdivision Certificate.</p>	Ardill Payne & Partners
	<p>Petrac will construct WSUD measures, including small dry detention systems up-stream of the Water Quality Control Pond, above the 1% ARI flood extent;</p>	<p>Details will be outlined in the stormwater management plan submitted to Council for approval prior to the issue of a Construction certificate for Stage 1. Approved stormwater controls / management measures will be constructed prior to the issue of a Subdivision Certificate.</p>	Ardill Payne & Partners

<i>Issue</i>	<i>Commitment</i>	<i>Actions and Timing</i>	<i>Responsibility</i>
	Petrac also commit to ongoing monitoring of stormwater quality and continued maintenance of the stormwater treatment train.	Details of monitor regimes will be provided to Council for approval prior to issue of a Construction certificate for Stage 1. Management of the Water Quality Control Pond will be taken over by Council in 2010 whilst management of the stormwater conveyance systems will be split between Council and land owners depending on specific land uses and future titling;	Ardill Payne & Partners
Acid Sulfate Soils	Sampling (at a rate of 1/1000 m ³ of excavated material) and laboratory analysis will be undertaken within areas of the site below RL 10 m, where excavation is proposed below natural ground level. The results will be used to determine appropriate liming rates and management requirements if necessary	An Acid Sulfate Management Plan will be submitted to Council for approval prior to the issue of a Construction certificate for Stage 1.	Ardill Payne & Partners
Infrastructure Provision	Petrac will provide reticulated potable and non-potable water supply, sewerage, telecommunications facilities and underground electricity to all lots.	Details will be provided to Council for approval prior to the issue of a Construction certificate for Stage 1	Ardill Payne & Partners
Mosquito Impact	exposure to <i>Verrallina funerea</i> , <i>Culex annulirostris</i> and <i>Aedes procax</i> will be effectively managed by development of the site eliminating ground pool breeding sites or interposing clear open space between breeding sites and residential allotments;	Details will be provided to Council for approval prior to the issue of a Construction certificate for Stage 1	Ardill Payne & Partners
	street lighting will be provided with shields or yellow filters to minimise artificial light attracting mosquitoes from the Ballina Nature Reserve into residential areas;	Details will be provided to Council for approval prior to the issue of a Construction certificate for Stage 1	Ardill Payne & Partners

<i>Issue</i>	<i>Commitment</i>	<i>Actions and Timing</i>	<i>Responsibility</i>
Traffic and Access	Petrac will construct the extension of Hutley Drive, from the northern boundary of the site to a point approximately 50 m south of the intersection with Main Street.	Details will be provided to Council for approval prior to the issue of a Construction certificate for Stage 1. Hutley Drive will be constructed in accordance with approved plans prior to the release of a Subdivision Certificate and will be maintained by the developer for a period of 12 months following completion of construction.	Ardill Payne & Partners
	All internal roads will be constructed in accordance with the road types identified in Appendix F and in accordance with relevant local and Australian Standards.	Details will be provided to Council for approval prior to the issue of a Construction certificate for Stage 1. Internal roads will be constructed in accordance with approved plans prior to the release of a Subdivision Certificate and will be maintained by the developer for a period of 12 months following completion of construction.	Ardill Payne & Partners

Table 9.2 Draft Statement of Commitments – Project Approval

<i>Issue</i>	<i>Commitment</i>	<i>Timing</i>	<i>Responsibility</i>
General	The developer will carry out the development in accordance with this Environmental Assessment Report, prepared by GeoLINK and dated December 2007; in accordance with plans prepared by Deicke Richards; and in accordance with the specialist supporting reports.	Detailed plans and information will be provided to Council prior to the approval of any subsequent development application, submitted under Part 4 of the Act.	Petrac and consultant team
Ecological	<i>Hairy Joint Grass</i> The developer is committed to the implementation of the Hairy Joint Grass Management Strategy, prepared by Cardno and dated September 2007 (see Appendix C).		Petrac

<i>Issue</i>	<i>Commitment</i>	<i>Timing</i>	<i>Responsibility</i>
	A Vegetation Management Plan (VMP) will be prepared for the site that addresses the implementation of the Hairy Joint Grass Strategy. The VMP will also provide management measures for all on-site plantings and vegetation removal.	The VMP will be submitted to Council for approval prior to the issue of a Construction Certificate for Stage 1.	GeoLINK / Cardno
	<i>Weed Management</i> The VMP will address weed management. Weeds should be controlled in landscaped areas and areas of retained vegetation. Known environmental weeds such as Camphor Laurel within areas of Littoral Rainforest should be gradually removed by stem injection	The VMP will be submitted to Council for approval prior to the issue of a Construction Certificate for Stage 1.	GeoLINK/ Cardno
	<i>Site Plantings</i> Vegetation will be established on site as street trees and landscape plantings.	Plantings will occur during construction of all stages. Details to be outlined in the VMP and detailed landscape plans will be submitted to Council with each subsequent DA for subdivision / development.	GeoLINK / Cardno
	Vegetation removed during clearing will be retained and mulched for later use on the site to prevent the introduction of weed seed being imported in mulch from offsite.	Vegetation removal will occur during initial construction stages, with mulch used in landscaping for all stages. Details to be outlined in the VMP.	GeoLINK/ Cardno
	<i>Physical Damage during Construction</i> Areas of vegetation to be retained will be clearly delineated with temporary fencing during works.	Protective fencing will be erected prior to commencement of construction works, in accordance with the approved VMP	GeoLINK / Cardno
	Trees to be removed will be monitored by personnel (with wildlife caring qualifications) immediately prior to, and during removal to ensure that no animals are directly impacted by the works. Any trees containing fauna will be retained until the species leaves the site or the nests have been vacated. If any animals are injured during the proposed works, they will be immediately transported to a wildlife carer for rehabilitation and release.	Monitoring will occur during all construction works, in accordance with specifications established in the approved VMP.	GeoLINK / Cardno

<i>Issue</i>	<i>Commitment</i>	<i>Timing</i>	<i>Responsibility</i>
	<p><i>On-site Protection</i></p> <p>Bulk earthworks within the parkland proposed as part of the retirement community super lot will be design to maximise the protection of existing Hairy Joint Grass</p>	Detailed earthworks plans will be submitted to Council prior to the issue of the Construction certificate. The plans will include survey results highlighting the location of all Hairy Joint Grass in this area, describing and quantifying both the removal and protection of the species in this area.	GeoLINK, Cardno, Ardill Payne & Partners
	<p><i>Impacts on Plant Reproduction</i></p> <p>retained areas of vegetation will be rehabilitated and buffered;</p>	Vegetation rehabilitation will be carried out in accordance with approved Vegetation Management Plans, with all stages of construction.	GeoLINK / Cardno
	<p>landscape plantings should include a majority of species that will provide forage habitat for nectarivorous and frugivorous birds and bats.</p>	Details of all plantings will be provided to Council for approval with all future applications for the site. All plantings will be established on site during construction works and will be maintained for a period of 12 months following completion of construction.	Deicke Richards / GeoLINK / Cardno
Integrated Water Cycle Management	Petrac will commit to constructing the creek corridors to convey major flood waters and to design the subdivision such that the flood planning levels are set at those recommended within Council's relevant Floodplain Management Plan;	Details of all stormwater management measures will be provided to Council for approval with all future applications for the site. Approved stormwater controls / management measures will be constructed prior to the issue of any Subdivision Certificate for the relevant stage.	Ardill Payne & Partners

<i>Issue</i>	<i>Commitment</i>	<i>Timing</i>	<i>Responsibility</i>
	Petrac commit to the continued use of the existing Water Quality Control Pond as a tertiary treatment system and main detention dam/recycling source for the proposed development;	Details of all stormwater management measures will be provided to Council for approval with all future applications for the site. Approved stormwater controls / management measures will be constructed prior to the issue of any Subdivision Certificate for the relevant stage.	Ardill Payne & Partners
	Petrac will construct WSUD measures, including small dry detention systems up-stream of the Water Quality Control Pond, above the 1% ARI flood extent;	Details of all stormwater management measures will be provided to Council for approval with all future applications for the site. Approved stormwater controls / management measures will be constructed prior to the issue of any Subdivision Certificate for the relevant stage.	Ardill Payne & Partners
	Petrac also commit to ongoing monitoring of stormwater quality and continued maintenance of the stormwater treatment train.	Details of all stormwater management measures will be provided to Council for approval with all future applications for the site. Management of the Water Quality Control Pond will be taken over by Council in 2010 whilst management of the stormwater conveyance systems will be split between Councils and land owners depending on specific land uses and future titling;	Ardill Payne & Partners
Acid Sulfate Soils	Sampling (at a rate of 1/1000 m ³ of excavated material) and laboratory analysis will be undertaken within areas of the site below RL 10 m, where excavation is proposed below natural ground level. The results will be used to determine appropriate liming rates and management requirements if necessary. It is not proposed to sample material borrowed from areas above the 10m AHD contour as these are unlikely to contain PASS.	An Acid Sulfate Soils Management Plan will be provided to Council for approval with all future applications for the site.	Ardill Payne & Partners

<i>Issue</i>	<i>Commitment</i>	<i>Timing</i>	<i>Responsibility</i>
Heritage and Archaeology	the Jali LALC will be engaged to monitor initial investigations; a recommended protocol will be adopted if any materials of an Aboriginal origin are found on the site during excavation works; and contractors will be advised of the statutory requirements of the National Parks and Wildlife Services Act 1974 in regard to any items / relics found during construction.	Representatives of Jali will be engaged prior to the commencement of construction for all future stages.	Petrac
Infrastructure Provision	Petrac will provide reticulated potable and non-potable water supply, sewerage, telecommunications facilities and underground electricity to all lots.	Servicing plans will be provided to Council for approval with all future applications for the site. All services will be constructed prior to the issue of any Subdivision Certificate for the relevant stage.	Ardill Payne & Partners
Traffic and Access	All internal roads will be constructed in accordance with the road types identified in Appendix F and in accordance with relevant local and Australian Standards.	Road layout plans will be provided to Council for approval with all future applications for the site. Internal roads will be constructed prior to the issue of any Subdivision Certificate for the relevant stage. Roads will be maintained by the developer for a period of 12 months following completion of construction.	Ardill Payne & Partners
Community facilities	A multi-purpose community building will be provided, with a nominal floor area of around 3,000m ² . The building will be designed in conjunction with Ballina Shire Council.	A Development Application will be prepared and lodged with Ballina Shire Council seeking approval for the construction of the community building within the 'super lot' created during Stage 1B.	Petrac

Conclusion

This Environmental Assessment has been prepared to accompany an application under Part 3A of the Environmental Planning and Assessment Act 1979, in order to address the Director-General's Environmental Assessment Requirements for an urban subdivision of the Pacific Pines Estate at Lennox Head.

The land was originally zoned for urban purposes by the Ballina Shire Council in the late 1980's, and a conceptual subdivision layout for the whole of the land was adopted by Council as a Development Control Plan at that time. The previous land owners pursued the development by way of individual development consents for project stages, and, to date, 4 stages of the original development have been approved and constructed.

In 2006, the Minister for Planning adopted a Master Plan for the remaining stages of the development pursuant to the provisions of State Environmental Planning Policy No. 71 – Coastal Protection (MP 27-12-2003).

Petrac Pty Ltd has purchased the site and are looking to improve aspects of the urban design associated with the adopted Master Plan.

The current application seeks Concept Approval for the urban development of the site, to provide around 500 residential lots plus a number of 'super lots' that will be developed to provide a neighbourhood centre. This centre will provide a village focus for the development and will include a neighbourhood retail centre, a tavern, a mixed-use business centre, child care and a community hall. The Concept Plan also provides for a 'super lot' that will be developed to provide an integrated retirement community, involving high care and assisted living options.

The application also seeks concurrent approval for Stage 1 of the development, to create 49 residential lots, the 6 'super lots' for future development, 3 open space park lots and associated roads, landscaping and infrastructure.

The Environmental Assessment has addressed in detail all statutory and policy provisions relevant to the development of the site. It has also addressed a range of environmental, social and economic issues that have been identified through the detailed consultation undertaken to inform the site design, as well those identified by the Director-General in relation to the project. Design of the Concept Plan has been based on the provision of urban design and environmental solutions that address all relevant issues.

It is considered that the proposed development provides for a contemporary urban development, with minimal on-site and off-site environmental impacts. A range of mitigation and management measures are outlined in this report to ensure that the environment of the site and the surrounding locality is protected and managed.



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