



Lennox Head Structure Plan



A framework to ensure that the growth and development of Lennox Head occurs in a coordinated and integrated manner

Adopted 9 December 2004

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1 Executive Summary

The Lennox Head Structure Plan provides the framework for the development of new urban release areas in the Lennox Head district. The need for the Structure Plan was identified in the Lennox Head Community Aspirations Strategic Plan, which was adopted by Ballina Shire Council in November, 2002.

The Lennox Head Structure Plan outlines Council's broad strategy or "Blue Print" for the growth and development of Lennox Head. All development of new release areas in Lennox Head will need to comply with the framework established by the Structure Plan.

The Structure Plan identifies areas of high conservation value, proposed arterial road networks and preferred locations for sporting, community, commercial, light industrial and other infrastructure in the area. It also identifies a number of "Candidate Release Areas" over which Council will consider rezoning proposals for urban purposes and outlines Council's requirements for these areas.

It is important to remember, however, that all land is constrained in one way or another. It is only after detailed site specific assessment and design work has occurred (via the rezoning and development application processes) that it is possible to determine the actual development potential of any given parcel of land. The Structure Plan provides a framework for these more detailed investigations to occur.

It should also be noted that the Structure Plan is one in a series of planning exercises proposed and underway for Lennox Head. Other important projects that will impact significantly on the development of new release areas include the preparation of a new Development Control Plan (DCP) and Subdivision Code for residential development in Lennox Head. Both of these projects were identified as priority Actions in the Lennox Head Strategic Plan and they are expected to be substantially completed in 2004. Given that rezoning land is quite a lengthy process (often taking a number of years), it is anticipated that the new DCP and Subdivision Code will be completed and operating prior to the consideration of any development application over the Candidate Release Areas.

Some key elements of the Structure Plan are as follows:

- The identification of high conservation value habitats to be retained and protected into the future. These essentially comprise all larger areas of native vegetation within the study area;
- The identification of future wildlife corridors linking high conservation value habitats. These will be provided and enhanced on a staged basis;
- The identification of visually significant land to be retained and protected into the future;
- The identification of a preferred site for the future development of a light industrial / arts & craft / service trades estate. This site is located to the south of the Sanctuary Village / Cooper Close area;
- The identification of a candidate site for the construction of a trial regeneration wetland for the disposal of highly treated reclaimed water. This site comprises the low lying flood plain adjacent to the Ballina Nature Reserve;
- A proposal to construct a multi-purpose community building on Williams Reserve in the vicinity of the Recreation Hall, CWA Hall and Fire Shed; and

-
- A proposal to provide additional active open space facilities to cater for the ultimate population, on Council owned property known as the 'Henderson Land South'.

2 Introduction

2.1 Reason for the Structure Plan

In November, 2002 Ballina Shire Council adopted the Lennox Head Community Aspirations Strategic Plan (the Strategic Plan). The Strategic Plan applies to the broader Lennox Head District - from Fig Tree Hill Estate in the north to Headlands Estate to the south. The Ballina Nature Reserve comprises the western boundary, whilst the ocean forms the eastern boundary of the District. The District includes the original village subdivision, the older estates along North Creek Road and newer areas such as Lennox Meadows and Pacific Pines Estate. The Strategic Plan also considers the planning of Headlands Estate, located in neighbouring Skennars Head, as part of the broader Lennox Head District.

The Strategic Plan is an umbrella document which provides guidance for future Council activities – including town planning, works programs and annual budgets. It does this by establishing a series of Actions to be implemented by Council over a ten year time frame. It also establishes a set of development principles to be applied as these Actions are progressed.

Preliminary constraints mapping was undertaken as part of the preparation of the Strategic Plan. This work identified that there appear to be a number of areas in and around Lennox Head which could be considered “relatively unconstrained” with respect to issues such as flooding, habitat, geotechnical characteristics or visual qualities. These areas were identified as warranting further investigation to determine whether or not they are indeed suitable for urban development.

During the public exhibition of the draft Strategic Plan there was considerable interest in the issue of population growth in Lennox Head and the timing of the rezoning and release of the “relatively unconstrained land” referred to above. Following consideration of the submissions received in response to the exhibition, Council resolved to adopt the following growth model:

- “1. For the Lennox Head village area (being all land north of the Coast Road) no more rezoning requests will be considered for 10 years, with this decision reviewed after that time; and*
- 2 For the broader Lennox Head district, the current moratorium on rezonings is to remaining place for 10 years or until a Structure Plan has been prepared, adopted and implemented for Lennox Head”.*

The completion of the Structure Plan was identified to be a very high priority action within the Strategic Plan.

2.2 Role of the Structure Plan

The Lennox Head Structure Plan sets the broad framework or “blueprint” for the development of new release areas in Lennox Head. It identifies preferred locations for environmental protection and enhancement, community and sporting infrastructure, and conceptual road, pedestrian and cycle linkages. It has involved completion of the community and sporting needs analysis, transport network strategy, stage 1 of the environmental restoration plan, landscape / visual analysis and an assessment of water and sewer infrastructure. All rezoning applications must demonstrate compliance with the framework established by the Structure Plan.

2.3 How the Structure Plan was Prepared

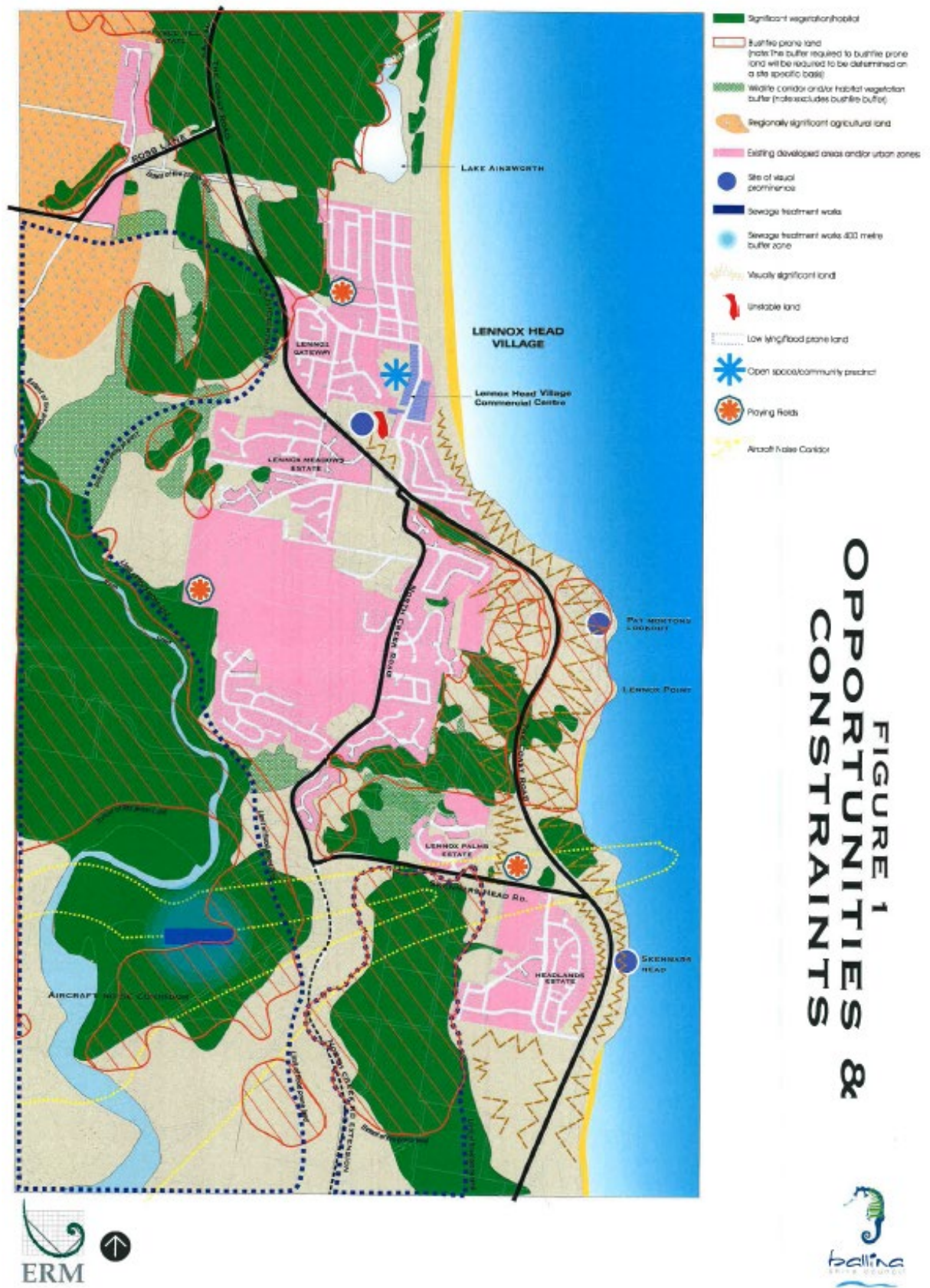
2.3.1 General

Council's Strategic Services Section prepared the Structure Plan, with technical input from the Civil Services, Regulatory Services and Corporate Services Groups of Council. Consultants were engaged to assist with aspects of this work. The Structure Plan was prepared having regard to the provisions of the following State Government policies and guidelines:

- NSW Coastal Policy 1997;
- NSW Coastal Design Guidelines 2002;
- NSW Sustainable Urban Settlement Guidelines;
- Planning for Bushfire Protection;
- North Coast Regional Environmental Plan;
- North Coast Urban Design Guidelines;
- Urban Settlement Strategies – Guidelines for the North Coast; and
- Farmland Protection Directives.

A number of reports and studies have provided background material to the Structure Plan. Some of these were prepared specifically as an input to the Structure Plan, whilst others have been prepared independently from the Structure Planning process. Information outlining the key findings of these projects of relevance to the Structure Plan can be found in Chapter 4. A summary of the constraints and opportunities identified through these Background Studies and other information available to Council is provided at Figure 1.

Figure 1 Constraints and Opportunities



2.3.2 Community Vision

The Community Vision for the future of Lennox Head was an important input to the preparation of the Structure Plan. The Vision, as developed by the Lennox Head community¹ during the preparation of the Lennox Head Strategic Plan, is reproduced below:

“The seaside village atmosphere and environmental heritage of Lennox Head will be retained and enhanced as the community works together to provide for the needs of existing and future generations.”

The finalisation of the Structure Plan involved input from the re-convened Lennox Head Community Access Group.

2.3.3 Development Principles

The Development Principles adopted by Council in the Lennox Head Strategic Plan formed the foundation of the Structure Plan. All rezoning applications prepared following the lifting of the rezoning moratorium will need to demonstrate compliance with these Principles. These Principles are reproduced on the following pages.

Village Atmosphere and Lifestyle Principles

Housing Design

The design of development is very important to the future visual character and environmental sustainability of the area. New development therefore needs to be sensitive in terms of form and character to the natural environment and terrain and to incorporate design elements which reduce energy consumption. Development will therefore be encouraged to comply with the following:

- *Providing for a range of housing types and densities, with higher densities located closer to activity nodes;*
- *Providing for housing choice, including a range of housing densities, designs and construction materials;*
- *Providing for a style and scale of development which is sensitive to the character, climate and topography of the area; and*
- *Promotion of “energy smart” design and construction of dwellings, commercial buildings and subdivisions.*

Transportation and “Walkability”

Whilst transport within and around Lennox Head and to other places within the Shire is primarily by private motor vehicle, the character, lifestyle and environment of Lennox Head requires flexibility of approach. Planning will therefore provide for a settlement pattern which encourages walking, cycling and public transport usage where practicable. This will be achieved by way of the following:

- *Promotion of an integrated transport network for all modes of transportation;*

¹ A panel of representatives from key community groups in Lennox Head developed the Community Vision. This Panel was known as the “Lennox Head Community Access Group”.

-
- *Encouraging the development of a more efficient and better utilised public transport network by co-locating facilities such as shops, playing fields and community facilities into "nodes";*
 - *Ensuring that road infrastructure, both within Lennox Head and linking Lennox to other areas, is planned having regard for future population, employment locations, the environment and community views; and*
 - *Providing for improved access to, and interpretation of, the beach and foreshore areas.*

Visual Character

For all development, whether or not it includes buildings, there are important elements which need to be considered, including its appearance and how it fits on the land and within the land's context. As such, the following principles will be applied to the assessment of the visual character of development:

- *Integrating future development with the landscape rather than substantially modifying the landscape to accommodate development;*
- *Protecting views and vistas to and from prominent ridgelines, headlands, beaches and other coastal areas by maintaining height, bulk, scale, materials and detailing consistent with the local context;*
- *Recognising the close relationship of the urban areas of Lennox Head to nearby coastal, rural and environmental landscapes. Future development should seek to minimise impacts of urban development on these landscapes by way of sensitive design;*
- *Maintaining Lennox Head as a place where the natural environment dominates in terms of views, environmental systems and vegetation types. Ecological systems surrounding and penetrating the built environment need to have a high level of environmental integrity;*
- *Recognising the desire for Lennox Head to remain physically and visually separate from other urban areas; and*
- *Designing new development in a manner which is sympathetic to the privacy and amenity of existing residents. The provision of buffers between and within large urban release areas may assist.*

Community Involvement

Community consultation is a valuable and critical part of the planning process, leading to improved decision-making and better understanding of issues. There is recognition within this Strategic Plan that the Lennox Head community should be afforded opportunities to continue to be active participants in the ongoing plan implementation process. In this regard the Strategic Plan will provide for:

- *Active and timely community consultation in Council decision making processes; and*
- *Developing ongoing partnerships between Council and the community in the implementation of the actions proposed in the Strategic Plan.*

Environment Principles

Environment

The maintenance of biodiversity, water and air quality, and soil resources are key requirements in achieving sustainability. As such, the protection and, where necessary, enhancement of these natural resources is the underlying environment principle. This will be achieved by way of the following:

- *Ensuring that future urban development does not impact negatively on environmental qualities of the area;*
- *Protecting and enhancing high conservation habitats by providing appropriate buffers between such areas and urban development and providing corridors linking these ecosystems;*
- *Maintaining and enhancing habitat for native fauna and flora – particularly that which is designated endangered, vulnerable or rare, or is otherwise protected;*
- *Maintaining ground, water and air quality;*
- *Maintaining low ambient noise levels;*
- *Maintaining an environment which is not deleteriously affected by inappropriate signage and other forms of visual pollution;*
- *Retaining existing native vegetation both within and around existing and proposed urban areas and encouraging the provision of native vegetation in new plantings;*
- *Protecting and enhancing public health and safety by providing appropriate buffers between urban development and areas identified as being key mosquito habitats or at high risk of bushfire hazard;*
- *Managing new development in a manner which ensures that it does not significantly increase stormwater runoff or lead to contamination of groundwater;*
- *Recognising that land may have attributes which limit or preclude its suitability for a range of land uses. These constraints include acid sulfate soils, bushfire hazard, flooding, proximity to land or waterways having significant environmental values, slope stability, soil suitability and susceptibility to airport noise or other such impacts; and*
- *Recognising that information about natural resources is not static. Significant new or improved information may result in the need to review plans and policies.*

Cultural Heritage

Respecting and conserving the cultural, archaeological and historical heritage which exists in Lennox Head, including both Indigenous and European heritage, is integral to the future of the area. It is recognised, however, that information about cultural and heritage values is not static and changes over time.

Lennox Head Village Centre Principles

Village Centre

The Village Centre of Lennox Head will continue to provide a clearly defined area where people can meet, interact and socialise. This will assist in maintaining a sense of community and provide a focus for community-building activities. Decisions relating to this area will endeavour to achieve the following:

- Promoting a retail and commercial hierarchy which encourages the retention of the existing Village Centre as the commercial and social “heart” of the district and which discourages the establishment of large scale commercial enterprises;*
- Improving visual and physical access to the foreshore areas adjacent to the Village Centre;*
- Providing for an interconnected system of streets and public spaces in the Village Centre; and*
- Encouraging low scale buildings constructed of complementary materials, forms and colours to produce cohesion throughout the Village Centre.*

Employment and Tourism

The Community Aspirations Survey recognised that most people who are in the workforce and who reside in Lennox Head work outside the area and are generally happy for Lennox Head to largely exist as a dormitory suburb for Ballina, Lismore and Byron Bay. It is also recognised, however, that low key employment opportunities in Lennox Head will reduce transportation demands and provide for a more dynamic community. As such, the Strategic Plan provides for the following:

- Ongoing provision of low key employment opportunities in Lennox Head with a focus on retailing, tourism and hospitality and home-based businesses;*
- Providing for low key “family oriented” tourism and ecotourism;*
- Limiting the scale and number of tourist establishments to minimise impacts on residential amenity, village atmosphere and sense of community; and*
- Planning for the provision of appropriate low key service type industrial activities in the area.*

Community Infrastructure Principles

Community Infrastructure

There is a view within the community that growth and development in Lennox Head has not been accompanied by adequate community infrastructure to meet the needs of the community. It is therefore important that any existing shortfalls are redressed and that any future development is accompanied by adequate community infrastructure. As such the planning for the area will be undertaken in a manner which:

- *Provides for long term strategic and financial planning relating to community infrastructure required by existing and future populations;*
- *Provides for an adequate level and standard of community infrastructure without adding to existing shortfalls;*
- *Recognises that population increases and changes in community composition will lead to changing demands on infrastructure;*
- *Recognises that population growth outside of Lennox Head may impact on the demand for facilities in Lennox Head; and*
- *Reviews available funding mechanisms for community infrastructure – including developer contribution plans, general Council revenue, Government grants and community fund-raising.*

Population Growth & Strategic Planning Principles

Role of Strategic Plan

The Lennox Head Strategic Plan will provide the framework and guiding principles for future planning, development and operational matters in Lennox Head. Council shall have regard for the principles and actions documented in the Strategic Plan when considering matters such as amendments to town planning documents, rezoning proposals, development applications and operational matters.

Structure Planning

It is important that the growth and development of Lennox Head occurs in a co-ordinated and integrated manner. To achieve this the Strategic Plan will:

- *Impose a moratorium on rezonings in the Lennox Head Village (north of the Coast Road) for ten years;*
- *Impose a moratorium on rezonings in the greater Lennox Head area until such time as a detailed Structure Plan has been prepared, adopted and implemented; and*
- *Ensure that future rezonings are consistent with the Structure Plan.*

Monitoring and Review

Strategic planning is not a static activity. Changes in information, community values, technology, economic climate and government policy can all impact on the implementation of plans and policies. As such, the Lennox Head Strategic Plan will:

- *Recognise that the Strategic Plan will be a living document which will be subject to review; and*
- *Develop ongoing partnerships between Council and the Community during the review of the Strategic Plan.”*

3 The Lennox Head Structure Plan

3.1 Introduction

The Lennox Head Structure Plan outlines Council's broad strategy or "Blue Print" for the growth and development of Lennox Head. All development of new release areas in Lennox Head will need to comply with the framework established by the Structure Plan.

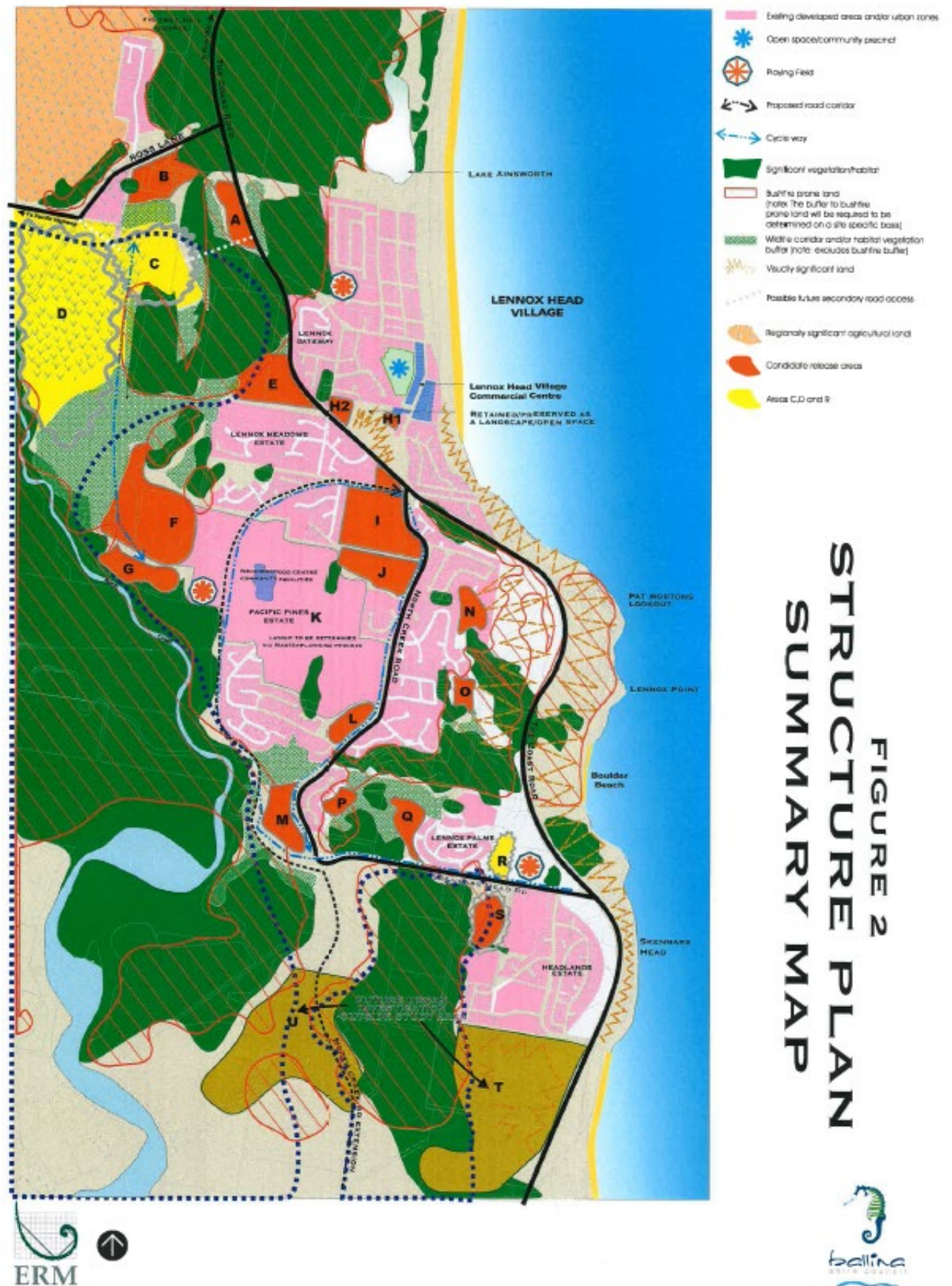
The Structure Plan identifies areas of high conservation value, proposed arterial road networks and preferred locations for sporting, community, commercial, light industrial and other infrastructure in the area. It also identifies a number of "Candidate Release Areas" over which Council will consider rezoning proposals for urban purposes and outlines Council's requirements for these areas.

Figure 2 provides a summary illustration of the key features of the Structure Plan. It should be read in conjunction with the following:

- The General Requirements for all Candidate Release Areas as outlined in Section 3.2; and
- The Site Specific Requirements for the Candidate Release Areas outlined in Section 3.3.

It is important to note, however, that detailed environmental assessments are required in order to determine the actual development potential of any parcel of land. This assessment will occur by way of the rezoning process (including the preparation of a Local Environmental Study where required) and the development application process (which, in turn, may require the preparation of a Master Plan pursuant to State Environmental Planning Policy No 71 – Coastal Lands). These assessments may determine that part or all of any Candidate Release Area is not suitable for urban development, or alternatively, is most suited to development of a particular kind.

Figure 2 Structure Plan Summary Map



3.2 General Requirements

The development of the Candidate Release Areas, as illustrated on Figure 2, must comply with the following:

- The broad framework established by the Lennox Head Structure Plan, as illustrated on Figure 2;
- The Development Principles established by the Lennox Head Community Aspirations Strategic Plan (as documented on Pages 11 to 15 of the Structure Plan);
- The findings of the various Background Reports outlined in Part 4 of the Structure Plan;
- Relevant Council planning documents and policies, such as development control plans concerning mosquito management and stormwater control. (A glossary of the key Council planning documents and policies is provided at Section 4.13);
- Relevant State Government planning documents and policies, such as the NSW Coastal Design Guidelines and Planning for Bushfire Protection. (A glossary of the key State Government planning documents and policies is provided at Section 4.13); and
- The findings of any other planning document prepared as part of the implementation of the Lennox Head Strategic Plan. In this regard, it should be noted that the Structure Plan is one in a series of planning exercises proposed or underway for Lennox Head. Other important projects that may impact significantly on the development of new release areas include the preparation of a new Development Control Plan (DCP) and Subdivision Code for residential development in Lennox Head. Both of these projects were identified as priority actions in the Lennox Head Strategic Plan and are expected to be substantially completed in 2004. Given that rezoning land is quite a lengthy process (often taking a number of years), it is anticipated that the new DCP and Subdivision Code will be completed and operating prior to the consideration of any development application over the Candidate Release Areas.

3.3 Candidate Release Areas

3.3.1 Introduction

The following information outlines Council's requirements for each of the Candidate Release Areas illustrated on Figure 2. Rezoning proposals and development applications over these areas will need to demonstrate compliance with the site specific requirements documented for each of these areas.

It should be noted that there are a number of areas of land currently zoned for urban purposes which are either not developed or not developed to their full potential under the current planning controls. The Structure Plan does not provide development criteria for these parcels, as this level of detail would prove impractical in what is effectively a broad strategic document. Instead, the Structure Plan illustrates only two large areas of urban zoned land which will accommodate future "green field" development, namely future stages of Pacific Pines Estate (Area K) and the Survey Street locality (Area N).

If an area exists which is currently not zoned for urban purposes and is not illustrated as a Candidate Release Area, this land is not considered suitable for future urban development. The reasons for excluding any given parcel of land are based on the findings of one or more of the background studies outlined in Part 4 of the Structure Plan.

3.3.2 Area A – North Lennox Head (Adjacent to Coast Road)

Area A is approximately 5 ha in size. It is currently zoned 1(d) Rural (Urban Investigation) Zone under the *Ballina Local Environmental Plan 1987*. It is flat, cleared of native vegetation and regularly mown. It is also located above the 1 in 100 year flood level. Area A is located in close proximity to high conservation habitats, archaeological sites and fire hazards. The land is also relatively isolated from other urban development.

Whilst constrained by the above planning factors, the Structure Plan recognises that Area A appears to be suited to accommodating future urban development. Should detailed assessment (via the rezoning process) confirm this to be the case, low key integrated tourist or holiday facilities are considered to be the preferred uses for this site².

The following planning factors will require particular attention as part of the possible rezoning and development of this area:

- Buffering for environmental, bushfire, road traffic noise, archaeological and mosquito management reasons; and
- Vehicular access shall be via a new road connecting to the Coast Road, with this road linking to Area C. It is noted that providing access through to Area C will necessitate traversing a known habitat of the Wallum Froglet, being a fauna species listed as vulnerable for the purpose of the *Threatened Species Conservation Act 1995*. Accordingly, sensitive design will need to occur to mitigate against any impacts on this habitat.

² Having regard to the constraints applying to this land, it is considered that this site is not suitable for permanent residential accommodation. The development of the site for retail or commercial activities is also considered inappropriate because of visual issues associated with such development and the inconsistency of retail or commercial development in this location with the Ballina Shire Retail Strategy.

In the event that a rezoning proposal incorporates land in addition to that identified in the Structure Plan, the onus is on the proponent to clearly demonstrate the suitability of the land for rezoning.

3.3.3 Area B – Cooper Close

Area B is approximately 10 hectares in size and comprises a number of large rural / residential allotments in separate ownership, as well as a place of worship. It is currently zoned 1(b) Rural (Secondary Agricultural Land) Zone under the *Ballina Local Environmental Plan 1987*. Access to the allotments is via Cooper Close which, in turn, links to Ross Lane. The area is generally flat and located above the 1 in 100 year flood level. Area B adjoins land identified as being of high conservation value as well as areas identified as comprising bushfire hazard.

As discussed in Section 4.12, part of Area B is presently identified as Regionally Significant Agricultural Land in accordance with the Northern Rivers Farmland Protection Project. A S117 Direction has been issued for the interim protection of farmland of State or regional significance, pending the completion of the project. The S117 Direction prevents land identified on the draft maps produced as part of the project from being rezoned for urban or rural residential uses. The direction applies for a period of 2 years. Any rezoning of this land is to be considered on an integrated basis and involve all land holdings within the area. Therefore, any future rezoning of this area will not be able to commence until the completion of the Northern Rivers Farmland Protection Project and / or the expiry of the S117 Direction. The mapping for this project will be refined over the coming 12 month period. Should this work reveal that the land does not warrant protection for agricultural purposes then the rezoning of this land may be considered. If the area presently identified on the draft maps is confirmed as Regionally Significant Farmland, then the relevant area will be required to be excluded from any rezoning proposal.

Whilst constrained by the above planning factors, the Structure Plan recognises that Area B appears to be suited to accommodating an intensification of residential development, over and above that already occurring on the land. Should detailed assessment (via the rezoning process) confirm this to be the case, low density large lot (L1 – 1200m²) residential development is considered to be the preferred use for this area.

The following planning factors will require particular attention as part of the possible rezoning of this area:

- Buffering for environmental, bushfire, road traffic noise and mosquito management reasons;
- Rezoning is to be considered on an integrated basis and should involve all land holdings within the area;
- Rezoning of the land is unable to proceed until the completion of the Northern Rivers Farmland Protection Project and / or the expiry of the Section 117 Direction detailed above; and
- Vehicular access is to be via Cooper Close. In this regard it is noted that any intensification of development of Area B is likely to require an upgrade to the Ross Lane / Cooper Close intersection.

3.3.4 Area C – South of Cooper Close

Area C is approximately 18 ha in size. It is currently zoned 1(b) Rural (Secondary Agricultural Land) Zone under the *Ballina Local Environmental Plan 1987* and is used for cattle grazing. It does not adjoin any public road, however is in relatively close proximity to both the Coast Road and Ross Lane.

Whilst Area C is generally clear of native vegetation, it adjoins land identified as containing high conservation value habitat. The Sanctuary Village Mobile Home Park and the Cooper Close rural / residential areas are located directly to the north. A portion of the site is located above the 1 in 100 year flood level, however, the majority of the site will require filling to facilitate development. Preliminary flood studies have revealed that such filling will have negligible effect on flood levels up or down stream.

As discussed in Section 4.12, the recently introduced Farmland Protection Project has identified Area C as being "Regionally Significant Agricultural Land". The S117 Direction introduced concerning this project prevents Council from considering rezoning proposals for urban or rural / residential purposes on such land. Accordingly, it is not appropriate for the Structure Plan to identify this land for urban development at this time. The mapping for this project will be refined over the coming 12 month period. Should this work reveal that the land does not warrant protection for agricultural purposes, Area C has been identified as the preferred candidate site for a Service Trades Centre.

As outlined in Section 4.6 this Centre should be approximately 11 hectares in size (plus buffering to adjoining land uses). The following planning factors will require particular attention as part of the possible rezoning of this area:

- Buffering to sensitive environments in the locality;
- Buffering and screening from Sanctuary Village and various rural / residential properties in the area;
- Careful design to ensure that potential pollutants such as trade waste and stormwater are managed in a manner which does not impact on the environmental qualities of the area;
- Development of specific planning controls to manage the scale, type and design of industrial activities to provide for low scale, non polluting land uses; and
- Vehicular access would be via a new road linkage from Ross Lane. A secondary access road is also proposed linking via Area A to the Coast Road.

In the event that a rezoning proposal incorporates land in addition to that identified in the Structure Plan, the onus is on the proponent to clearly demonstrate the suitability of the land for rezoning.

Should the refinement of the Farmland Protection Project mapping confirm that this site warrants protection for agricultural purposes, then urban purposes will not be considered on this site.

3.3.5 Area D – North West Lennox

Area D is approximately 70 ha in size. It is currently zoned 1(b) Rural (Secondary Agricultural Land) Zone under the *Ballina Local Environmental Plan 1987* and is used for cattle grazing. Vehicular access is obtained via Ross Lane.

Area D is generally clear of native vegetation, however, it adjoins land identified as containing high conservation value habitat. It also contains an area identified by

Council's consultant, ERM, to be the preferred location for the development of an environmental corridor linking two areas of wetland habitat. The land is flat, poorly drained, located below the 1 in 100 year flood level and has generally poor geotechnical characteristics.

Given the above constraints, the Structure Plan recognises that this land is generally not suited for urban development. However, as outlined in Section 4.7, Area D has been identified as a candidate site for the construction of a 50 hectare trial regeneration wetland. As this land is currently in private ownership, it would need to be acquired by Council in order for this project to proceed on the site. The provision of a regeneration wetland in this location would also provide the opportunity to establish a substantial wildlife corridor linking natural wetlands of environmental significance in this locality. Opportunities also exist for ancillary open space to be considered as part of the overall project.

It is noted that the Farmland Protection Project has identified this land as being "Regionally Significant Agricultural Land". The S117 Direction introduced concerning this project prevents Council from considering rezoning proposals for urban or rural / residential purposes on such land. The Direction appears silent with respect to ancillary infrastructure as proposed.

In the event that a rezoning proposal incorporates land in addition to that identified in the Structure Plan, the onus is on the proponent to clearly demonstrate the suitability of the land for rezoning.

3.3.6 Area E – Henderson Farm North (Adjacent to "The Grove")

Area E is approximately 10 ha in size. It is currently zoned 1(d) Rural (Urban Investigation) Zone under the *Ballina Local Environmental Plan 1987*. It is gently undulating, generally cleared of native vegetation and utilised for grazing purposes. Several natural drainage lines traverse the area, however the majority of the site is located above the 1 in 100 year flood level. The site is generally triangular in shape, with an existing residential subdivision located to the south, high conservation value wetlands to the west and the Coast Road to the north-east.

Whilst constrained by the above planning factors, the Structure Plan recognises that those portions of Area E located above the 1 in 100 year flood level appear to be suited to accommodating future urban development. Should detailed assessment (via the rezoning process) confirm this to be the case, low density large lot residential development (L1 – 1200m² pursuant to DCP No.1) is the preferred use for Area E. This density is consistent with that currently provided for in the Greenfield Road area.

The following planning factors will require particular attention as part of the possible rezoning of this area:

- Buffering for environmental, bushfire, road traffic noise and mosquito management reasons;
- Screening from the Coast Road and adjoining residential areas;
- Stormwater management to mitigate impacts downstream; and
- Vehicular access is likely to occur from either Greenfield Road or The Grove. The scale of development should therefore be such that the existing road networks can accommodate the additional traffic flows without unduly effecting amenity in these areas.

3.3.7 Area F - Henderson Farm Central (adjacent to Pacific Pines Estate)

Area F is approximately 25 ha in size. It is currently zoned 1(d) Rural (Urban Investigation) Zone under the *Ballina Local Environmental Plan 1987*. A ridgeline runs through the centre of Area F, with a number of visually prominent trees located along the ridge. A dwelling and associated farm buildings are located in the vicinity of this vegetation. The remainder of the site is sloping, generally cleared of native vegetation and is used for grazing.

It is separated from Area E by two clumps of Littoral Rainforest identified by Council's consultant, ERM, to be of high conservation value. To the south is an area of land in Council ownership (Area G), nominated by the Structure Plan for the purpose of providing open space and community infrastructure. To the west is a low lying area nominated in the Structure Plan as future wildlife corridor. A dry stone wall runs in a north-south direction on the western side of this area.

Whilst constrained by the above planning factors, the Structure Plan recognises that Area F appears to be suited to accommodating future urban development. Should detailed assessment (via the rezoning process) confirm this to be the case, residential development comprising a range of low and medium density housing (L1, L2 & M1 pursuant to DCP No.1) is the preferred use for this area.

The following planning factors will require particular attention as part of the rezoning of this area:

- Buffering for environmental, bushfire and mosquito management;
- Stormwater management to mitigate impacts downstream;
- Development should not project above the ridgeline, with existing prominent native vegetation along the ridge retained as part of the development of the site.
- Vehicular access is to occur via a (yet to be constructed) linkage through Pacific Pines Estate to Hutley Drive;
- Cycleway networks are to be designed such that they will facilitate the future expansion of the network northward to areas A, B and C; and
- Dry stone walls found on the site should be retained and protected as part of the development of the land.

3.3.8 Area G – Henderson Land South (Adjacent to Pacific Pines Estate Playing Fields)

Area G is approximately 15 hectares in size. It is currently zoned 1(d) Rural (Urban Investigation) Zone under the *Ballina Local Environmental Plan 1987*. The property is currently in Council ownership and is classified as Operational Land under the Generic Plan of Management. At the time of purchase, this land had tentatively been considered for the provision of sporting and community infrastructure. The use of the land for this purpose was also envisaged in the Lennox Head Strategic Plan.

The land is relatively flat adjacent to the Ballina Nature Reserve, however rises steeply as one moves away from the Reserve. The provision of a buffer to the Ballina Nature Reserve may also present a further constraint to the area of land available for the provision of sporting facilities. Given the topography of the site significant modification to the landform will be required to provide sporting infrastructure on this land. This will also have implications regarding the cost of provision of such facilities.

On the eastern portion of the site, immediately adjoining the Pacific Pines Estate Complex there is an area of relatively flat land. To the west of this area, located on elevated land overlooking the Pacific Pines Estate Playing Complex, is a clump of vegetation which appears to have some historical significance with respect to early European settlers in the area.

Notwithstanding the above constraints, a preliminary review of the site indicates that the land available will be capable of catering for a significant proportion of the active open space identified by Council's consultant as required for the ultimate population. Detailed design work is required to determine the exact layout and nature of sporting facilities able to be catered for on the subject land. It is envisaged that the land will provide 2 to 3 adult fields, tennis and / or netball courts, and a mini skate park. The detailed design work will be undertaken as part of the preparation of the Section 94 Contributions Plan for open space facilities.

3.3.9 Area H - The Hill Behind the Lennox Head Village Centre

Area H comprises the hill located between the Lennox Head Village Centre and the Coast Road Lennox Head Bypass. The land is currently zoned 1(d) Rural (Urban Investigation) Zone pursuant to the *Ballina Local Environmental Plan 1987* and comprises two land holdings. Area H is currently used for grazing and has a generally open landscape reflective of its previous use as a dairy farm. There are several areas of vegetation identified as being of ecological value in the report prepared by Council's consultant, ERM. A dwelling is located on the ridge at the eastern end of the site which obtains access from the Coast Road. It should be noted that Area H is the subject of the 10 year moratorium on rezonings (refer page 8).

The key planning issue associated with Area H relates to the visual prominence of the site, and the important role it plays in the Lennox Head landscape. This quality has been identified by:

1. The Lennox Head community during the preparation of the Lennox Head Strategic Plan;
2. The former planningNSW (now the Department of Infrastructure Planning and Natural Resources or "DIPNR") in its submission to the draft Lennox Head Strategic Plan. This submission advised that *"most of this area is of outstanding visual prominence and amenity to the whole village environment, whether viewed from the north, east or west..."*; and
3. The Landscape and Visual Analysis report prepared by Council's consultant ERM Pty Ltd.

Issues relating to geotechnical stability, vehicular access and road traffic noise are also of relevance when considering land use planning on this site.

Following consideration of these issues, the Structure Plan recognises that two parts of Area H appear suited to development for urban purposes, namely:

- Area H1. At the base of the hill immediately adjoining the Lennox Head Medical Centre; and
- Area H2. The south-western portion of the site generally between Greenwood Place and the existing stand of Banksia trees.

The Structure Plan proposes that a draft Local Environmental Plan be prepared with the view to rezoning the balance of Area H to zone 7(d) Environmental Protection (Scenic Escarpment) Zone pursuant to the *Ballina Local Environmental Plan 1987*.

Should detailed assessment (via the rezoning process) confirm that areas H1 and H2 are suitable for development, the following requirements will apply to the development of the sites:

- Area H1. The preferred land use for area H1 is an extension of the Consulting Room Precinct immediately adjacent to the site. Any development in this area will need to be designed having careful regard to the impact of the development from a geotechnical perspective and to ensure that views to the scenic escarpment are retained. A built form of light weight construction with little or no excavation to minimise disruption to the landform, is also considered appropriate for this site.
- Area H2. A combination of low and medium density residential development (L2 and M1 pursuant to Ballina DCP No.1) is the preferred use for this site. Any such development would need to ensure adequate buffering for road traffic noise and be well screened from the Coast Road. Access to area H2 is to be via Greenwood Place. A built form of light weight construction with little or no excavation to minimise disruption to the landform, is considered appropriate for this site. Any buildings on this site shall have a building height lower than the red roof of the duplex building to north of site at 14 Blue Horizon Drive, so as to minimise the visual impact of development in this area.

Any rezoning of Area H is to occur on an integrated basis and should involve all land holdings within the area.

3.3.10 Area I – Adjacent to the Water Reservoir

Area I comprises the land located between Lennox Meadows Estate and North Creek Road, generally in the vicinity of the Water Reservoir. It is approximately 17 ha in size and in two landholdings. The land is zoned 1(d) Rural (Urban Investigation) Zone pursuant to the *Ballina Local Environmental Plan 1987*. Area I is currently used for grazing and has a generally open landscape reflective of its previous use as a dairy farm. A dwelling and associated outbuildings are located in the vicinity of the intersection of Henderson Lane and North Creek Road, together with a clump of native vegetation.

The eastern portion of the site slopes relatively steeply from North Creek Road towards the west, whilst the western portion of the site adjoining Lennox Meadows Estate is low lying. A prominent drainage line runs along the southern portion of the site, generally parallel to Henderson Lane.

Whilst constrained by the above factors, the Structure Plan recognises that Area I appears to be suited to accommodating future urban development. Should detailed assessment (via the rezoning process) confirm this to be the case residential development comprising a range of low and medium density housing (L1, L2, D & M1 pursuant to DCP No.1) is the preferred use for this site.

The following planning factors will require particular attention as part of the possible rezoning of this area:

- Any rezoning of Area I is to occur on an integrated basis and should involve all land holdings within the area;

- As discussed in Section 4.8, the development of Area I will need to make provision for the construction of the northern extension of Hutley Drive to the satisfaction of Council;
- No vehicular access is to be obtained from North Creek Road, with all access either by way of either Henderson Lane or Hutley Drive. Vehicular access from Hutley Drive is to be via an integrated road access. No direct vehicular access to individual allotments from Hutley Drive will be permitted. At such time as the Hutley Drive extension is constructed, opportunities for direct access from Henderson Lane will be considered;
- Stormwater management will need to address both the retention and quality of stormwater generated on the site. It is envisaged that this will require the construction of on-site detention ponds on the lower portion of the site;
- The subdivision design should seek to minimise cut and fill on the steeper portions of the site; and
- Mature native vegetation on the site is to be retained as part of the development of the land.

3.3.11 Area J - Stoneyhurst Drive

Area J comprises 11 rural / residential landholdings in separate ownership. It is currently zoned 1(d) Rural (Urban Investigation) Zone pursuant to the *Ballina Local Environmental Plan 1987*. Vehicular access to eight of these allotments is via Stoneyhurst Drive, whilst two obtain access from North Creek Road and the remaining lot from Henderson Lane.

The Structure Plan recognises that Area J appears to be suited to accommodating future urban development. Should detailed assessment (via the rezoning process) confirm this to be the case, residential development comprising a range of low and medium density housing (L1, L2, D & M1 pursuant to DCP No.1) is the preferred use for this site.

The following planning factors will require particular attention as part of the rezoning of this area:

- Any rezoning of Area J is to occur on an integrated basis and should involve all land holdings within the area;
- Vehicular access should primarily be from Stoneyhurst Drive. Vehicular access from Henderson Drive is to be via integrated road access points, although at such time as the Hutley Drive extension is constructed, opportunities for direct access from Henderson Lane will be considered;
- The subdivision design should be such that development should not protrude above the ridgeline;
- The subdivision design should seek to minimise cut and fill on the steeper portions of the site; and
- Mature native vegetation on the site is to be retained as part of the development of the land.

3.3.12 Area K – Pacific Pines Estate

Area K involves the remaining stages of Pacific Pines Estate. It is currently zoned 2(b) Village Area Zone pursuant to the *Ballina Local Environmental Plan 1987*. The topography comprises a flat-bottomed valley running in an east-west direction.

Relatively steep slopes leading to ridgelines flank the valley to the north, east and south. The Estate adjoins the Ballina Nature Reserve to the west, which has been identified as being of high conservation value in various reports and documentation. The undeveloped portions of the site are generally cleared and used for grazing, although a number of clumps of native vegetation remain.

The Estate comprises a total of about 800 residential allotments and is being developed in stages, with each stage the subject of a separate development application. To date, 225 allotments have been approved and/or constructed with the remaining 580 allotments yet to receive development consent. The constructed lots are generally in the southern portion of the Estate.

Ballina Shire Development Control Plan No.1 – Urban Land identifies the Council endorsed layout for the Estate and nominates land use designations for all land within the Estate. This layout includes sites for a neighbourhood shopping centre, community centre, playing fields and local playgrounds. However, the recent introduction of State Environmental Planning Policy No.71 - Coastal Protection (SEPP 71) has meant that it is necessary to revisit the layout of the Estate to ensure that it is consistent with contemporary planning practice. This requires the preparation and approval of a Master Plan pursuant to SEPP 71. A draft Master Plan for the subdivision of the remaining 580 lots has been lodged with the Department of Infrastructure, Planning and Natural Resources. The Master Plan proposes significant changes to the layout of future stages of the Estate.

The State Government is responsible for the approval of the Master Plan and, subject to the scale of subsequent development applications for the subdivision of the site, is also likely to be responsible for the assessment of such applications. Council is, however, able to make submissions to both the Master Plan and Development Application processes. In this regard, Council will require as follows:

- that any future development of the site comply with the development principles documented in Section 2.3.3;
- that the revised layout include the community and commercial infrastructure envisaged in the current endorsed layout; and
- that the revised layout include opportunities for the provision of the southern extension of Hutley Drive as outlined in Section 4.8.3.

3.3.13 Area L - Various blocks, North Creek Road

Area L is approximately 4 ha in size and currently comprises four rural / residential landholdings in separate ownership. It is currently zoned 1(d) Rural (Urban Investigation) Zone pursuant to the *Ballina Local Environmental Plan 1987*.

Whilst constrained by a number of planning factors, the Structure Plan recognises that Area L appears to be suited to accommodating future urban development. Should detailed assessment (via the rezoning process) confirm this to be the case, residential development comprising a range of low and medium density housing (L1, L2, D & M1 pursuant to DCP No.1) is the preferred use for this site.

The following planning factors will require particular attention as part of the rezoning and development of this site:

- Any rezoning of Area L is to occur on an integrated basis and should involve all land holdings within the area;

-
- Vehicular access to the site is to be via a single integrated access point from North Creek Road; and
 - Stormwater management will need to address both the retention and quality of stormwater generated on the site.

3.3.14 Area M - South of Pacific Pines Estate

Area M comprises a number of landholdings in separate ownership. It is currently zoned 1(d) Rural (Urban Investigation) Zone pursuant to the *Ballina Local Environmental Plan 1987*. It is predominately cleared and is currently used for grazing and/or rural residential purposes. The site adjoins the Ballina Nature Reserve, which is identified as being of high conservation value in a wide variety of reports and publications.

Area M has previously been the subject of a request to rezone the land to a combination of environmental protection and residential land uses. This work necessitated the preparation of a comprehensive Local Environmental Study over the site. The rezoning has been placed on exhibition on two occasions and been the subject of extensive negotiations with relevant Natural Resource Agencies. The rezoning request over this land is currently “on-hold” pending the outcomes of the Structure Plan. The most recent layout for this project involves approximately 100 residential allotments at an overall site density of about 5 dwellings / hectare.

The Structure Plan recognises that this site appears to be suited to accommodating future urban development. This development should generally be in accordance with the site layout previously negotiated with Government Agencies and Council over the site. This layout includes a number of key initiatives as proposed in the Structure Plan, including:

1. Retention of existing native vegetation;
2. Provision of vegetated buffers to the existing vegetation adjoining the Ballina Nature Reserve;
3. Provision of buffers for mosquito and fire management purposes;
4. Retention of Dry Stone Walls existing over the site; and
5. Provision of an “investigation corridor” for the proposed Hutley Drive extension (refer Section 4.8.3).

One issue that is not adequately addressed in the most recent layout over this site is its relationship to the environmental corridor proposed to be located between the site and Pacific Pines Estate. Any future development of Area M should incorporate measures to enhance this environmental corridor.

3.3.15 Area N – East of Survey Street and Amber Drive

Area N is approximately 8 hectares in size. It is currently zoned mainly 2(a) Living Area Zone pursuant to the *Ballina Local Environmental Plan 1987*. The site is generally cleared and currently used for grazing, although an area of littoral rainforest identified

to be of high conservation value exists on the southern part of the site. The site lies within a basin with relatively steeply sloping sides.

In 2000, this site was the subject of a development application to subdivide the site into 54 residential allotments and associated open space, storm water drainage and roads. Council refused the application, based on a number of planning and engineering grounds. The proponent subsequently appealed this decision to the Land and Environment Court, however the Court dismissed the appeal.

The proponent is currently developing a Master Plan for the development of the site pursuant to State Environmental Planning Policy No.71 (SEPP 71). It is understood that the proposed subdivision involves the creation of approximately 40 residential allotments. The State Government is responsible for the approval of the Master Plan and, subject to the scale of subsequent development applications for the subdivision of the site, is also likely to be responsible for the assessment of such applications.

Council is, however, able to make submissions to both the Master Plan and Development Application processes. In this regard, Council will require that any future development of the site comply with the development principles documented in Section 2.3.3 and the findings of the earlier Court case on this matter.

3.3.16 Area O – South of Amber Drive

Area O is approximately 2 hectares in size and comprises a number of landholdings in separate ownership. It is currently zoned 1(d) Rural (Urban Investigation) Zone pursuant to the *Ballina Local Environmental Plan 1987*. It is predominately cleared and currently used for grazing. A stock yard is located at the northern end of the site.

Area O adjoins existing residential development to the east (Sandstone Crescent) and to the north (Amber Drive). The southern most boundary of Area O comprises a “finger” of littoral rainforest which links to a substantial area of littoral rainforest further to the south. Both of these areas have been identified in the report prepared by Council’s consultant, ERM, to be of high ecological value, as has a low lying wetland located to the east of the site.

The property slopes relatively steeply as it rises up away from the Coast Road and is visible from that road. Whilst the site is visible from the Coast Road the Landscape and Visual Analysis report prepared by ERM. concludes that, from a visual perspective and subject to careful subdivision and dwelling design, residential development can be accommodated on the site. The site exhibits some evidence of geotechnical instability which will require detailed investigations at the rezoning stage.

Whilst constrained by the above factors, the Structure Plan recognises that Area O appears to be suited to accommodating future urban development. Should detailed assessment (via the rezoning process) confirm this to be the case, low density residential development (L1 – 1200m²) is the preferred use for this site.

The following planning factors will require particular attention as part of the possible rezoning of this area:

- Detailed geotechnical assessment;
- Compliance with the ERM recommendations concerning subdivision design and built form, as documented in Section 4.4.3;

-
- Development of revegetated corridor linkages between high conservation habitats in the area;
 - Storm water management to minimise impacts down stream; and
 - Vehicular access to be via an extension of Amber Drive. No vehicular access is to be obtained to the Coast Road.

3.3.17 Area P – East of Tara Downs

Area P is approximately 1.4 hectares in size and comprises a single landholding. It is currently zoned 1(b) Rural (Secondary Agricultural Land) Zone pursuant to the *Ballina Local Environmental Plan 1987*. It is a residue allotment created when the Tara Downs Estate was subdivided. The site slopes gently downward from west to east and forms part of the foot slope of the ridge upon which Tara Downs and North Creek Road are located. The site is generally cleared of native vegetation, however to the east is an area identified in the ERM Report as being of high ecological importance. A decommissioned cattle tick dip is located down hill and to the south of the site.

Whilst constrained by the above factors, the Structure Plan recognises that Area P appears to be suited to accommodating future urban development. Should detailed assessment (via the rezoning process) confirm this to be the case, low density residential development (L1 – 1200m²) is the preferred use for this site.

The following planning factors will require particular attention as part of the rezoning of this area:

- Buffering for environmental and mosquito management reasons;
- Stormwater management to mitigate impacts downstream and on surrounding environments;
- Establishment of dwelling envelopes to minimise impact on views of existing residents of Tara Downs; and
- Vehicular access is to occur via a single integrated access point to Tara Downs Drive.

3.3.18 Area Q - West of Lennox Palms Estate

Area Q is approximately 5 ha in size and currently comprises a number of allotments in single ownership. It is zoned 1(d) Rural (Urban Investigation) Zone pursuant to the *Ballina Local Environmental Plan 1987*. The site is generally open and gently undulating with several drainage lines running through the site. To the north is an area of littoral rainforest, whilst to the west is a wetland community, both of which are recognised in the ERM Report as being of high ecological value.

The Structure Plan recognises that Area Q appears to be suited to accommodating future urban development. Should detailed assessment (via the rezoning process) confirm this to be the case, low density residential development (L1 – 1200m²) is the preferred use for this site, consistent with the density of Lennox Palms Estate.

The following planning factors will require particular attention as part of the rezoning of this area:

- Buffering for environmental, bushfire and mosquito management reasons;
- Stormwater management to mitigate impacts downstream and on surrounding environments; and

-
- Vehicular access is to occur via a single integrated access point to Henderson Drive.

3.3.19 Area R - East of Lennox Palms Estate

Area R is approximately 2.5 ha in size and comprises a single allotment of land. It is located between Henderson Drive in Lennox Palms Estate and the Skennars Head Playing Fields.

This land is currently zoned 7(l) Environmental Protection (Habitat) Zone pursuant to the *Ballina Local Environmental Plan 1987*. The ERM Environmental Protection Zone Review has concluded, however, that the environmental characteristics of this land are such that most of it does not warrant the 7(l) zoning. The ERM Landscape and Visual Analysis has concluded that the site is not of outstanding visual quality. The site is located within the 20 – 25 ANEF aircraft noise zone. Whilst most land uses are acceptable within this zone, caution should be taken if siting residential buildings, schools, nursing homes or hospitals within this area. The site is also located immediately adjoining the Skennars Head Playing Fields and provides an effective buffer between housing and the playing fields. Any future use of this site should be such that it does not introduce conflict with the legitimate use of these fields.

Given the site constraints outlined above, the Structure Plan concludes that Area R is not suited to urban development. Rather, it is proposed that the site be rezoned to Zone No.7(d) Environmental Protection (Scenic Escarpment) Zone under the *Ballina Local Environmental Plan 1987*³. It is noted, however, that the property is understood to have a dwelling entitlement and therefore a single dwelling or dual occupancy may be permitted on the land with development consent. Ideally, any such development would include extensive planting with littoral rainforest species so as to complement the remnant rainforest in close proximity to the site.

3.3.20 Area S - West of Headlands Caravan Park

Area S is approximately 5 ha in size and comprises a single allotment of land. This land is currently zoned 7(a) Environmental Protection (Wetlands) Zone pursuant to the *Ballina Local Environmental Plan 1987*. The ERM Report has concluded, however, that the environmental characteristics of this land are such that most of it does not warrant the 7(a) zoning. The site is located within the 20 – 25 ANEF aircraft noise zone. Any future development of the land would need to be designed in a manner which achieves buffers to adjoining wetland areas and provision of vegetated corridors. The land is also low lying and it is preferable in this regard to nominate a land use that does not require substantial filling.

Given the site constraints, conventional residential development is not envisaged on this land. However, the Structure Plan recognises that Area S appears to be suited to accommodating some form of future urban development. Should detailed assessment (via the rezoning process) confirm this to be the case, some form of low-key tourist use associated with the adjacent caravan park, such as 'overflow' camping, is the preferred use for this site.

3.3.21 Area T – South of Headlands Estate, Skennars Head

³ It is noted that the ERM Landscape and Visual Analysis concluded that this site does not have outstanding visual qualities. However, given the existing and proposed zoning pattern of the surrounding area, the 7(d) Zone is considered most appropriate for this site.

Area T is approximately 60 hectares in size and comprises a number of allotments in single ownership. It is generally zoned 1(d) Rural (Urban Investigation) Zone pursuant to the *Ballina Local Environmental Plan 1987*. Area T is located outside of the scope of the study area for the Lennox Head Structure Plan. However, it is illustrated on the Structure Plan Map in the interest of providing information as to where other urban development may occur in the vicinity of Lennox Head.

Notwithstanding the above, the Lennox Head Community Aspirations Strategic Plan identified the need for a buffer to provide for ongoing visual separation of Lennox Head from East Ballina. Such a buffer will need to be provided as an integral part of any development of Area T. As advised in Section 4.4, ERM was engaged to undertake a Landscape and Visual Analysis over this area. The ERM recommendations recognise the importance of providing for the ongoing visual separation of Ballina and Lennox Head. ERM also recommend, however, that activities such as tourism development may be appropriate on the land subject to detailed visual assessment and sensitive design.

Given that Area T is located outside the study area and that more detailed visual assessment is required to refine the future development footprint, the Structure Plan does not nominate preferred land uses, or changes to the zoning of Area T at this time. Rather the future development potential of this area will be the subject of a separate planning exercise. The recommendations of the ERM Report will be considered as part of that work.

3.3.22 Area U – North Creek Road Extension, Skennars Head

Area U is approximately 50 hectares in size and comprises a number of landholdings in separate ownership. It is generally zoned 1(d) Rural (Urban Investigation) Zone pursuant to the *Ballina Local Environmental Plan 1987*. Area U is located outside of the scope of the study area for the Lennox Head Structure Plan and the future development potential of this land will be the subject of a separate planning exercise. However, it is illustrated on the Structure Plan Map in the interest of providing information as to where other urban development may occur in the vicinity of Lennox Head.

4 Background Materials

4.1 Introduction

A number of reports and studies have provided input to the Structure Plan. Some of these were prepared specifically as an input to the Structure Plan, whilst others have been prepared independently of the Structure Plan. The reports and studies are as follows:

- Review of Population Projections
- Ballina Urban Land Release Strategy 2000 – Addendum
- Lennox Head Landscape and Visual Analysis (ERM Pty Ltd)
- Lennox Head Environmental Protection Zone Review (ERM Pty Ltd)
- Community Facilities and Open Space Needs Analysis (ERM Pty Ltd)
- Shire Wide Analysis of Industrial Land Provision
- Urban Water Management Strategy
- Road Network Strategy (Eppell Olsen Pty Ltd)
- Pedestrian and Mobility Study (PAMP)
- Public Transport and Infrastructure Needs Analysis

The following information provides a brief outline of the purpose and key findings of each piece of work.

4.2 Review of Population Projections

4.2.1 Existing Population

At the time of the 2001 Australian Bureau of Statistics Census, the Lennox Head District (including Headlands Estate at Skennars Head) had a population of approximately 6300 people. It is estimated that there is currently a population in the Lennox Head District of approximately 6,600⁴.

4.2.2 Ultimate Population

There is limited land which appears to be suited to development for urban purposes. These areas are illustrated on the Structure Plan Map. Should all of these areas be developed, it is expected that the ultimate population of the Lennox Head District will be between 12,000 and 13,500. For infrastructure planning purposes it is appropriate to over-estimate the ultimate population levels – in that it is better to have “too much” rather than “too little”. This also allows for a little flexibility in the future should government policies change in a manner which requires increased densities in locations like Lennox Head.

Accordingly, the Structure Plan assumes a maximum population of approximately 13,500. It must be emphasised, however, that this is considered to be an over-estimation of actual yield that will be achieved.

4.2.3 Population Projections

In July 2003, Council prepared revised population projections for Ballina Shire. These projections have been prepared using a methodology developed by the Department of Infrastructure Planning and Natural Resources (DIPNR). The projections from 2003 to the year 2021 have been endorsed by DIPNR for the purpose of infrastructure planning.

In summary, the projections assume that population levels in Ballina Shire will rise at an average rate of 800 people per year to the year 2021. This equates to the average annual growth rate for the period 1991 – 2001. The main areas in the Shire which are likely to accommodate this growth are Cumbalum, Wollongbar and the Lennox Head District.

In the Lennox Head District, the population is projected to grow at the rate of approximately 250 people per year (or 100 dwellings). This is a slowing in growth rate from that experienced during the 1991 – 2001 Census periods where the population grew at an average of 310 people per year. As shown in Table 4-1, if the population continues to grow at the rate of 250 people per year, the ultimate population for the Lennox Head District (of approximately 13,500) would be reached in about 2031.

⁴ This estimation assumes a continuation of the 1991 – 2001 average annual population increase for the District.

Table 4-1 Population Projections		
Year	Lennox Head District	Ballina Shire Total
2001	6,301	38,388
2002	6,446	39,188
2003	6,591	39,987
2004	6,841	40,792
2005	7,091	41,597
2006	7,341	42,402
2007	7,591	43,207
2008	7,841	44,012
2009	8,091	44,817
2010	8,341	45,622
2011	8,591	46,427
2016	9,841	50,452
2021	11,091	54,477
2026*	12,341*	58,477*
2031*	13,591*	62,477*
* <i>Note: The projections beyond 2021 have not been endorsed by the Department of Infrastructure Planning and Natural Resources.</i>		

It is acknowledged that the task of developing population projections is not straightforward. There is a wide range of variables which potentially impact on the rate of population growth. These include:

- Land supply and housing prices – both within Lennox Head and elsewhere;
- Birth rates and migration levels;
- Retirement policies; and
- Community trends (such as the “sea change” factor).

Similarly, it is difficult to determine precisely the ultimate population that will be achieved in Lennox Head, as this will be influenced by various factors such as:

- Local and State Government planning policies;
- Changing environmental knowledge & requirements; and
- Market demand for different housing types.

Accordingly, population projections should only be used as a guide for infrastructure planning purposes. Projections also need to be monitored and reviewed on a regular basis.

Note: A copy of the Urban Land Release Strategy Update Addendum, which provides more information on population projections for the Shire, can be found at **Appendix 1**.

4.3 Environmental Protection Zone Review

Environmental Resource Management Pty Ltd (ERM) was engaged to undertake a review of the natural environments located in and around Lennox Head and to make recommendations with respect to the adequacy and suitability of the zoning of these areas pursuant to the *Ballina Local Environmental Plan, 1987*. In summary, this work identified as follows:

- The existing environmental protection zones apply to approximately 83% of the important habitat resources in the study area. Approximately 17% of the important habitat resources are currently located outside of environmental protection zones;
- A large proportion of the littoral & subtropical rainforest habitat is not currently zoned for environmental protection purposes. The report recommends that a number of significant stands of this vegetation community be rezoned for environmental protection purposes. The report further identifies that all areas of this habitat type are ecologically important, and recommends that smaller clumps of this vegetation which are located outside of environmental protection zones be retained and protected as part of the development assessment process;
- Overall, the swamp forest habitat is well covered by environmental protection zones. There are, however, several large areas of this habitat type in the north of Lennox Head which are currently zoned for urban investigation purposes. There is also an area of this habitat type in the vicinity of the Sewage Treatment Works, which is located outside of the environmental protection zones. The Report recommends that these areas be rezoned for environmental protection purposes;
- The mangrove forest habitat is generally well covered by environmental protection zones, but that there is a small area adjacent to the Ballina Nature Reserve which appears to be located in an Urban Investigation Zone. The Report recommends that this area be rezoned for environmental protection purposes;
- That the shrubland, open forest, wet & dry heath and sedgeland & rushland habitats are typically well represented in the existing environmental protection zones. There are a few small areas of these habitats which appear to be located outside of the environmental protection zones;
- There is an area of land in the north of the study area which provides habitat for the wallum froglet (*Crinia tinnula*) which is listed as a vulnerable species. The Report recommends that this land be rezoned from urban investigation purposes to environmental protection;
- That a number of corridors should be created within the study area linking areas of ecological significance;
- That buffer zones are required to protect remnant areas of habitat and wetland areas zoned for environmental purposes from edge effects, pollutants and nutrient inputs. There are no specific standards for buffer widths, however NPWS recommend a buffer of 50 metres. The impacts of introducing a buffer would depend on the specific location in which the buffer is to be applied. Where the habitat to be protected is located in or adjacent to areas zoned for urban investigation purposes, it is recommended that the buffer be designed as part of the rezoning process and be zoned for environmental protection purposes. A buffer of 50 metres would generally be appropriate in these circumstances. In cases where habitat areas to be buffered are adjacent to undeveloped residential zoned land, it is recommended that buffers be

designed as part of the subdivision with the width of the buffer being determined having regard to the environmental qualities of the habitat being protected, surrounding land uses and subdivision patterns. Consideration is also given in the report to requirements for specific areas; and

- That there are three areas of cleared land which currently have either habitat or wetland zonings, which do not display the environmental characteristics which warrant these zonings. The report recommends that these areas be provided with an alternative zoning. The subject areas are as follows:
 - The Skennars Head Playing Fields which are currently zoned for wetland protection purposes. The Structure Plan proposes that a scenic protection zone be applied over this land;
 - Immediately to the west of the Skennars Head Playing Fields is an area of cleared land which is currently zoned for habitat protection purposes (identified as Area R on Figure 2). The Structure Plan proposes that a scenic protection zone be applied over this land; and
 - Immediately to the west of Headlands Caravan Park is a cleared paddock which is currently zoned for wetland protection purposes (identified as Area S on Figure 2). The Structure Plan acknowledges that this area appears to be suited to accommodating some form of urban development. Should detailed assessment (via the rezoning process) confirm this to be the case, some form of low-key tourist use associated with the adjacent caravan park, such as 'overflow' camping, is the preferred use for this site.

Figure 3 illustrates the location of the various habitat types in Lennox Head whilst Figure 4 illustrates the zoning of these habitat areas. Figure 5 illustrates the proposed changes to the environmental protection zones in Lennox Head.

Note: The above information is a summary of the key findings of the ERM Report on the Review of Environmental Protection Zones. A copy of the complete ERM Report can be found at **Appendix 2**.

Figure 3 Extent of Habitat Types

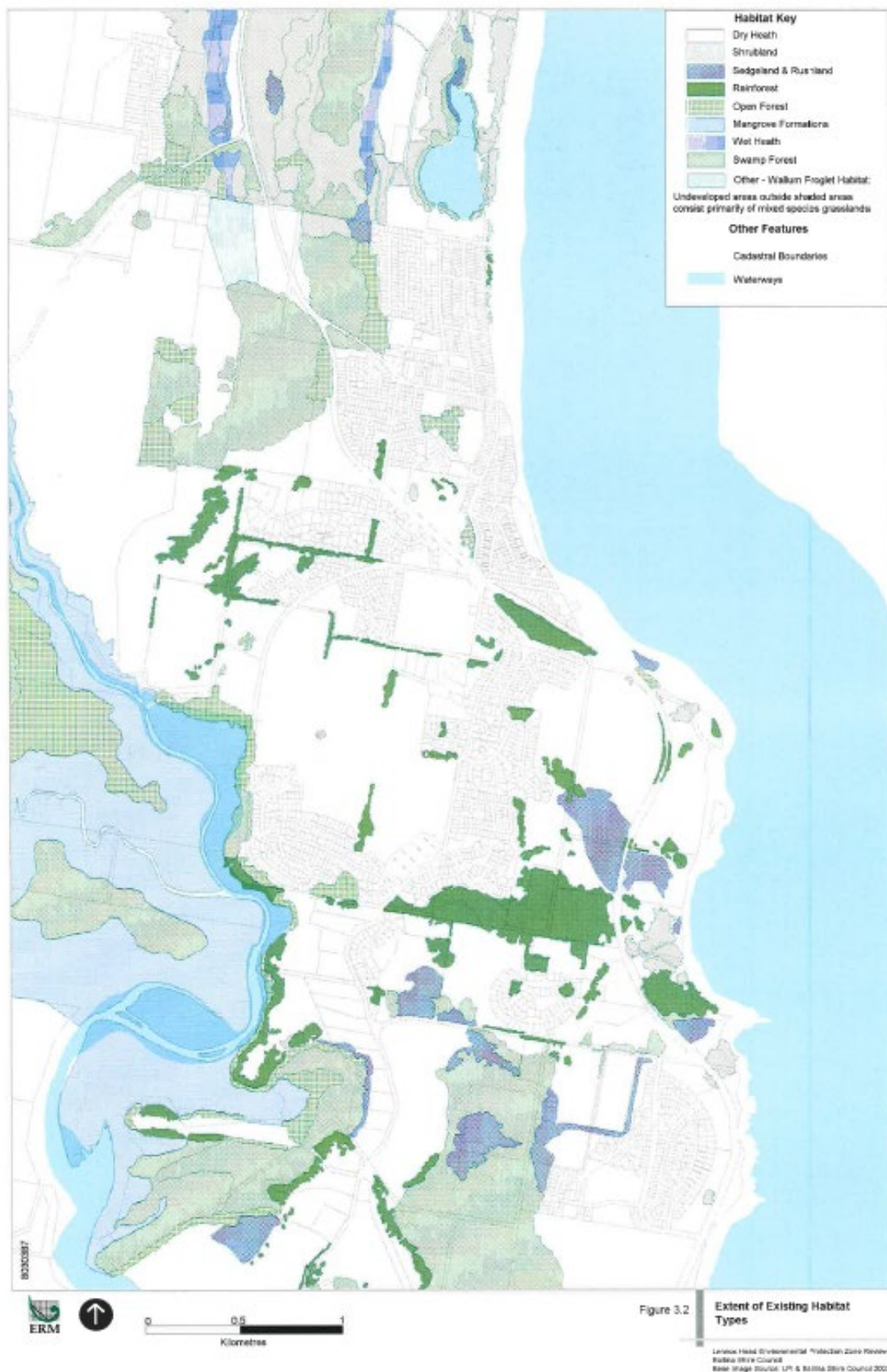


Figure 4 Existing Zoning of Habitat Types

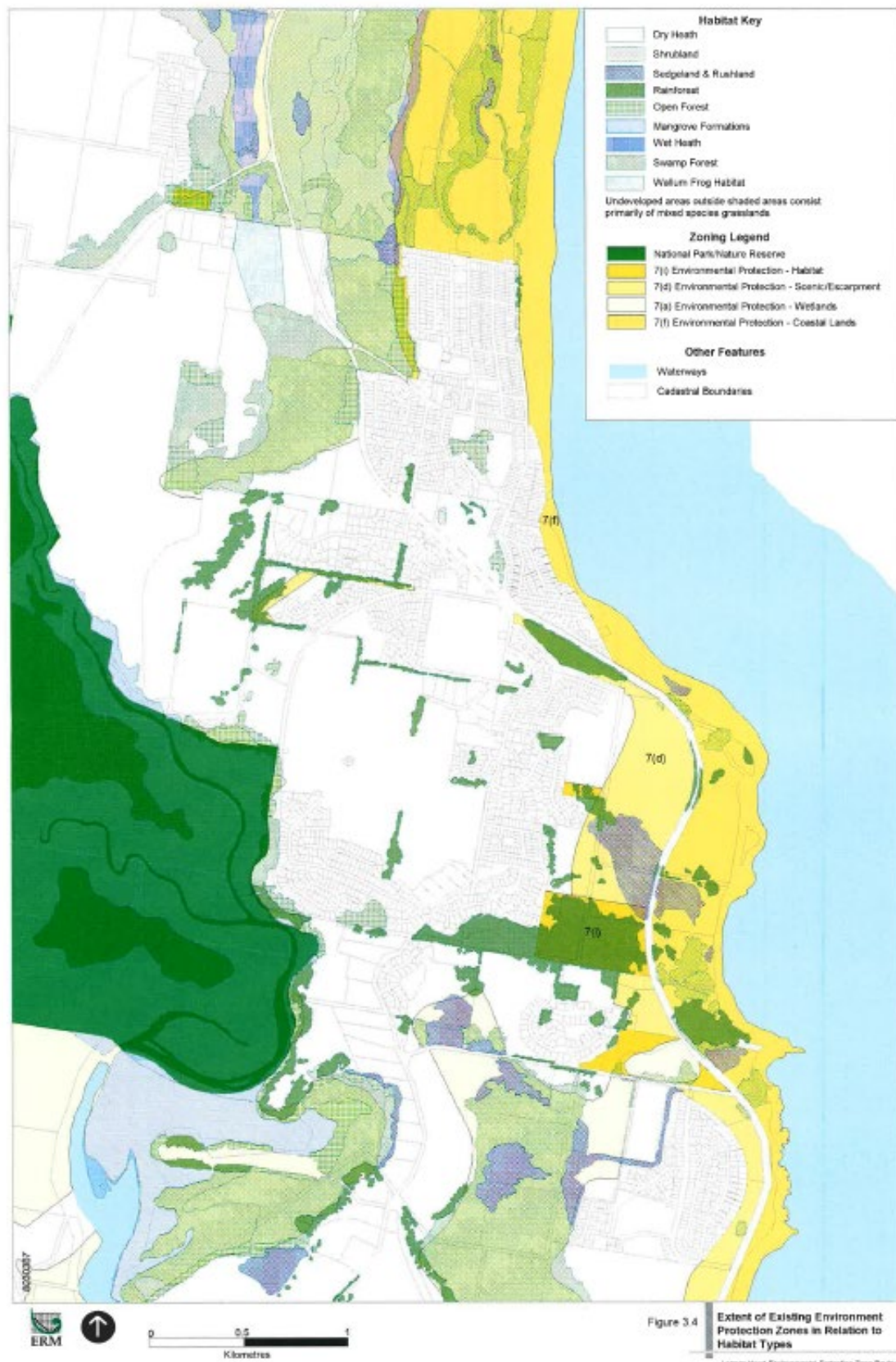
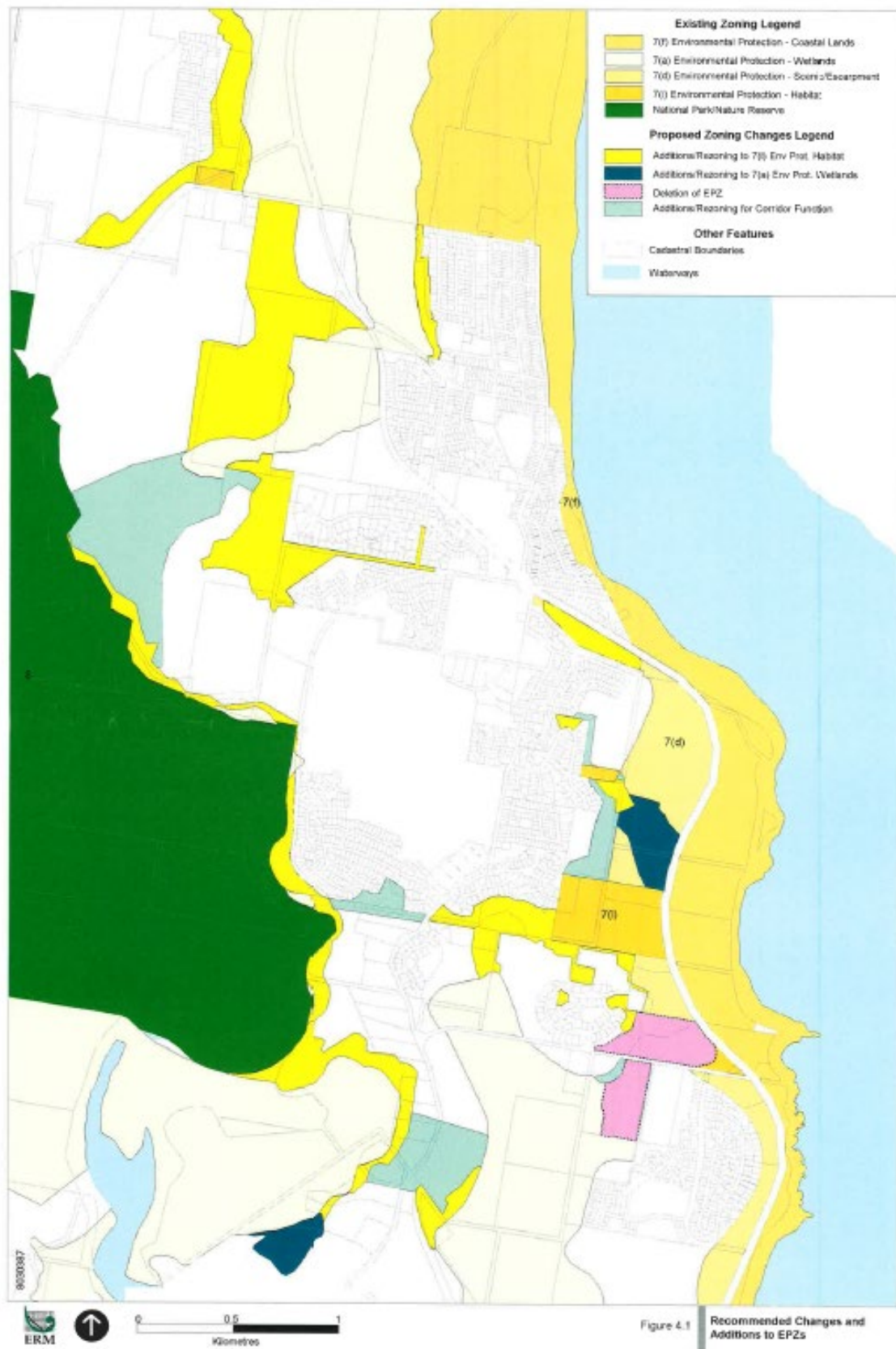


Figure 5 Changes and Additions to Environmental Protection Zones



4.4 Landscape and Visual Analysis

4.4.1 Introduction

Environmental Resource Management Pty Ltd (ERM) was engaged to review areas of visual prominence in Lennox Head and to make recommendations concerning the zoning of these areas and formulate controls that should apply to development in these areas. In summary this work identified as follows:

4.4.2 General Recommendations

Ridgelines

- Natural ridgelines and vegetation on ridgelines should be preserved to reduce the impact of development on natural skylines;
- There should be no development or excavation on (undeveloped) ridgelines;
- Where redevelopment of existing dwellings on ridgelines is proposed, a visual assessment of the individual proposal should be required to ensure that the development does not adversely impact on the ridgeline. This should include a photomontage of the development in the context of the ridgeline. Matters that the Council may wish to consider are:
 - limiting the building height to a maximum of two storeys;
 - limiting the building footprint to ensure that vegetation can penetrate between buildings;
 - use of light weight building form; and
 - the colour of building materials to be complementary to the existing landscape.

Lennox Head Village

- Controls need to be developed for beachfront lots in Lennox Head to limit building height and footprint. These need to be developed as part of an overall plan which determines the future urban design / village character⁵; and
- The escarpment behind the Lennox Head Village Centre should be retained as a backdrop to the village;

Retention of Vegetation

- Placement of development should have regard to requirements for bushfire protection. Existing stands of vegetation that are of high scenic value should not require removal or modification to provide bush fire protection for urban development;
- Native vegetation remnants near Kelly Anne Crescent should be retained;
- Future extension of Stoneyhurst Drive and future development of the Henderson Farm and Greenfield Road should ensure the retention of ridgeline vegetation; and
- Consideration should be given to the inclusion of the existing Norfolk Island Pines on Council's significant tree register.

⁵ The need for this work was also identified as a priority project in the Lennox Head Strategic Plan and is scheduled to commence in early 2004.

Fig Tree Hill

- Development to be limited to a maximum of two storeys. Existing vegetation is to be retained.

The ERM general recommendations have been incorporated into the Lennox Head Structure Plan and should be considered as part of the rezoning and development of the Candidate Release Areas.

4.4.3 Site Specific Recommendations

At Council's request, ERM also did a specific visual assessment of four properties within the study area. It must be emphasised, however, that the following assessment relates only to visual issues and does not consider the wide range of issues which may limit or preclude urban development on any parcel of land. Detailed environmental assessment is required in order to determine the suitability or otherwise of any parcel of land for urban development. Such assessment would occur as part of the rezoning process. A summary of the ERM findings of these assessments is provided below:

Area H – The Hill Behind the Lennox Head Village

This land comprises the undeveloped hill located between the Lennox Head Village Centre and the Coast Road (identified as Areas H1 and H2 on the Structure Plan Map). ERM recommendations concerning this land are as follows:

- *“Development on this site should be limited to the following locations:*
 - *The portion of the property adjoining Greenwood Place; and*
 - *Ballina St. behind the existing residential/commercial precinct at the base of the escarpment;*
- *Development of these areas should be controlled with respect to height, impact on the landform and colour;*
- *The built form be of light-weight construction with little or no excavation to minimise disruption to the landform;*
- *The extent of massing should be limited to encourage variation and to break up the form of any construction as much as possible;*
- *The colour of building materials should be complementary to the existing landscape; and*
- *The balance of the site should be retained as an open landscape, in its current form”.*

Area T – South of Headlands Estate, Skennars Head

The visual assessment of the Stewart Farm property related to the eastern portion of the property, generally between Headlands Estate and North Angels Beach (identified as “Area T” on the Structure Plan Map). ERM recommendations concerning this land are as follows:

- *“a green belt should be provided between Ballina and Lennox Head to provide a visual separation and retain the individual urban identities of the two settlements;*
- *the existing scenic protection zone and urban investigation zone could be replaced with a rural zone allowing a range of permissible uses;*
- *tourist development on the property would be acceptable subject to sensitive design, a two storey height limit and the inclusion of significant areas of open*

-
- space to ensure that the separation of Lennox Head and Ballina is retained; and*
 - any development application for the land should be accompanied by a detailed visual assessment."*

Given that Area T is located outside of the study area and that more detailed visual assessment is required to refine the future development footprint, the Structure Plan does not nominate preferred land uses, or changes to the zoning of Area T at this time. Rather the future development potential of this area will be the subject of a separate planning exercise. The recommendations of the ERM Report will be considered as part of that work.

Area O – South of Amber Drive

This assessment relates to an area of land immediately to the south of Amber Drive (identified as Area O on the Structure Plan Map). ERM recommendations concerning this land are as follows:

"From a visual perspective, residential development of the land would be acceptable subject to the following criteria:

- There should be no development to the south of the area of remnant vegetation within the property;*
- Dwelling height should be limited to two storeys;*
- The vegetation on the escarpment should be extended into the property by siting buildings to allow adequate separation for planting. A ratio of 1:1 is recommended. This means that the width of the lots would need to be twice the width of the building envelope;*
- Developments that require extensive earthworks should be avoided. Eg tennis courts and some swimming pools; and*
- Lightweight construction should be implemented".*

The above recommendations have been incorporated into the Lennox Head Structure Plan.

Area R – East of Lennox Palms Estate

This assessment relates to an area of land immediately to the west of the Skennars Head Playing Fields (identified as Area R on the Structure Plan Map). ERM recommendations concerning this land are as follows:

"From a visual perspective, residential development of the property would be acceptable subject to the following criteria:

- the existing stands of vegetation on the hill above Henderson Drive should be retained to maintain the characteristic mosaic;*
- the height of dwellings should be limited to two storeys;*
- development should be restricted to the western section of the property, between the playing fields and Henderson Drive to ensure that the coastal buffer is retained;*

-
- *lightweight construction should be implemented; and*
 - *provision of a pedestrian link from the public reserve below Henderson Drive through to the playing fields”.*

Whilst the property may not be heavily constrained by visual prominence, there are a number of other factors which limit opportunities for future urban development on this site. These are discussed in more detail on page 33. Accordingly, the Structure Plan proposes that this area be identified as a buffer between the Skennars Head Playing Fields and the existing residences at Lennox Palms Estate.

Note: The above information is a summary of the key findings of the ERM Report on the Lennox Head Landscape and Visual Analysis. A copy of the complete ERM Report can be found at **Appendix 3**.

4.5 Community Facility and Open Space Needs Analysis

4.5.1 Introduction

Environmental Resource Management Pty Ltd (ERM) was engaged to undertake a review of community facility and open space infrastructure in Lennox Head. Given that such infrastructure is, in part, a Shire wide asset, the ERM study was carried out in the context of Shire wide service levels and demands. A copy of the ERM study is provided at **Appendix 4**. It should be noted that this study comprises the first stage in the development of new Community Facility and Open Space Strategies for the Shire. As such, more detailed studies and investigations are required to develop the details concerning infrastructure standards, location and timing of provision of such infrastructure.

4.5.2 Summary of Findings – Open Space

Total Level of Provision

The ERM Report recommends that open space be provided at a rate of 2.83ha per 1000 people. ERM further recommends that open space be divided between Passive Open Space and Active Open Space as follows:

Table 4-2 Open Space – Total Level of Provision		
	Facility	Hectares per 1000 people
Passive Open Space	Local Parks	0.4 ha
	District Parks	0.73 ha
Active Open Space	Sports Facilities	1.7 ha
	Total	2.83 ha

Passive Open Space

Two different types of Passive Open Space shall be provided, namely Local Parks and District Parks. The split between Local Parks and District Parks is intended to be flexible, provided that the overall requirement for Passive Open Space is met.

Local Parks

Local Parks are small neighbourhood parks, which are intended to service the needs of residents living nearby. Typically Local Parks will provide play equipment, shading and seating. They will be a minimum size of 2000m² and be located within 500m of residents. Given the relatively small scale of Local Parks, the Structure Plan does not examine in detail the location and provision of this infrastructure.

District Parks

District Parks are larger scale parks which will attract people from throughout the Lennox Head area and possibly beyond. Typically, District Parks will include facilities such as play equipment, toilet facilities, shade structures, BBQ areas and picnic facilities and be at least 1ha (10,000m²) in size. The following tables outline the existing and proposed provision of District Parks within Lennox Head.

Table 4-3 District Parks – Level of Provision			
Existing Provision (6,500 Population)			
Facility	Area	Required Area	Shortfall / Surplus
Lions Park / Allens Parade	2.4 ha	-	-
Williams Reserve (Excluding existing sports fields)	2 ha	-	-
Ocean Breeze Park	1.24 ha		
Total	5.64 ha*	4.75 ha	+0.89ha**
Ultimate Provision (13,500 Population)			
Facility	Area	Required Area	Shortfall / Surplus
Lions Park / Allens Parade	2.4 ha	-	-
Williams Reserve (Including existing sports fields)	4.0 ha	-	-
Ocean Breeze Park	1.24 ha		
Henderson Land (adjoining Pacific Pines Playing Fields)	2.0 ha		
Total	9.6 ha	9.8 ha	-0.2 ha**
<p>* It is noted that these parks typically do not currently have the level of embellishment recommended by ERM and, accordingly, some level of embellishment is required.</p> <p>** It should also be noted that Lennox Head has large areas of land contained within the Coastal Reserve Network which also provide District Park functions. These areas include Lake Ainsworth, Seven Mile Beach, Sharps Beach and adjacent open space areas.</p>			

Active Open Space

Introduction

ERM recommends that Active Open Space facilities be provided at the rate of 1.7ha per 1000 people. ERM further recommends that the rates shown in Table 4-4 be used as a guide for determining the types of facilities to be provided within this area.

Table 4-4 Active Open Space – Recommended Rates of Provision	
Sports Facility	Rate of Provision
Soccer Fields	1 field per 1500 people
Football Fields	1 field per 4000 people
Hockey	1 field per 4000 people
Cricket	1 oval per 3000 people
Tennis Courts	1 court per 2000 people
Netball Courts	1 court per 2000 people
Other Sports Facilities: - eg. AFL, Baseball, Athletics, Indoor Sports, pools, skateboarding etc	Approximately 0.5ha per 1000 people.

Note: As advised in Section 4.2, the Structure Plan assumes that the existing population of the Lennox Head District is approximately 6600 and that the ultimate population of the Lennox Head District will be approximately 13,500 people. For the purpose of projecting demand for Active Open Space, 5% of the total rural population has been added to the Lennox Head population – in that it is estimated that this proportion of the rural population regularly utilise sporting facilities in Lennox Head. This results in an existing population to be catered for of approximately 6970 and an ultimate population of approximately 13,900.

Existing Provision of Active Open Space in Lennox Head

The following tables outline the existing provision of Active Open Space in Lennox Head. Table 4-5 provides information concerning the area of Active Open Space provided, whilst Table 4-6 outlines the location and type of infrastructure provided.

Table 4-5 Active Open Space Infrastructure – Existing Area Provided (Population approximately 6,970*)			
Facility	Area	Required Area	Shortfall / Surplus
Skennars Head	4.7 ha	-	-
Megan Crescent	1.7 ha	-	-
Williams Reserve	2 ha	-	-
Total	8.4 ha	11.8ha	-3.4 ha**
* For the purpose of determining demand for Active Open Space, 5% of the total rural population has been added to the Lennox Head population.			
** This shortfall will be alleviated in the near future as construction work has commenced on the first stage of the Pacific Pines Playing Fields. This will comprise two junior league / union fields for winter use and one cricket oval for summer use). It is also noted that other infrastructure utilised by Lennox Head residents, such as hockey fields, is also provided in Ballina.			

Table 4-6 Open Space Infrastructure - Existing Location and Type (Population Approximately 6,970*)				
Sport	Rate	Requirement	Provision	Location
Soccer	1 field per 1500 people	4.3 Fields	2 Senior Fields 4 Junior Fields 2 "overflow" Junior Fields	Skennars Head Road Megan Crescent
Football (League & Union)	1 field per 4000 people	1.6 Fields	2 Senior Fields**	Williams Reserve Megan Crescent
Cricket	1 field per 4000 people	1.6 Ovals	2 Ovals***	Williams Reserve Megan Crescent
Netball	1 court per 2000 people	3.25 Courts	Nil provided in Lennox Head	Ballina
Tennis	1 court per 2000 people	3.25 Courts	Nil provided by Council in Lennox Head****	Ballina
Hockey	1 field per 4000 people	1.6 Fields	Nil provided in Lennox Head	Ballina
Skate boarding	No fixed standard.	-	Nil provided in Lennox Head	Ballina
* For the purpose of determining demand for Active Open Space, 5% of the total rural population has been added to the Lennox Head population.				
** Rugby League policy requires junior league to be played only on grounds with amenities. Lack of such infrastructure at Megan Crescent means that League is not played on that ground.				
*** Neither of the existing ovals are suitable for 1 st Grade Cricket.				
**** NSW Sport and Recreation Facility includes tennis courts which can be accessed by the Lennox Head community.				

Table 4-6 demonstrates that the current shortfalls experienced in Lennox Head relate to netball, tennis, hockey and skateboarding. It is also noted that there are a number of improvements required to the existing infrastructure to enable their optimum utilisation.

Future Active Open Space Provision for Lennox Head

As advised above, most sporting infrastructure is used by both the “home team” and a “visiting team” from elsewhere in the Shire and Region. This means that sporting infrastructure in Lennox Head is used by residents of other parts of the Shire, just like Lennox Head residents utilise infrastructure in places such as Ballina and Alstonville. Accordingly, ERM recommends that Active Open Space provision in Lennox Head have regard to Shire wide service levels and demands. They further recommend that a proportion of the total infrastructure needs for new growth areas, such as Lennox Head, be provided in that settlement - with the remainder in a new centralised facility accessible to residents of the whole Shire (probably in Ballina). The new growth area of Cumbalum would also be subject to this requirement.

A centralised facility would enable larger scale sports facilities to be developed which are capable of hosting regional events. It would also enable lighting, noise and traffic to be controlled and potentially reduce the conflict of sporting fields with residential areas. Sports to be provided for in the centralised facility would include hockey, athletics, baseball and swimming pools. The sports catered for in Lennox Head, would be soccer, football, cricket, netball and tennis.

With the above recommendation in mind, the Structure Plan proposes the following approach for the provision of Active Open Space in Lennox Head. It is important to note that this is a long-term strategy aimed at providing infrastructure to meet the needs of the ultimate population of Lennox Head. Accordingly, it is likely to be a number of years before this infrastructure is fully developed. A staging and funding strategy for the provision of the infrastructure will need to be developed following the adoption of the Structure Plan.

1. Skennars Head Playing Fields (North of Skennars Head Road)

The existing Skennars Head Playing Fields accommodates two adult soccer fields and four junior soccer fields. The report prepared by Council’s consultant, ERM, identifies a need to upgrade the existing playing surface and provide both parking areas and amenities on this site. The Lennox Head Soccer Club has recently been granted development consent for the construction of a Club House on the land which will assist with regard to the provision of amenities. Initial plans for the complex had also identified the provision of an adult turf cricket wicket on the site for use during the summer months. However, the property is not currently large enough to accommodate this infrastructure.

2. Pacific Pines Estate Playing Fields

Pacific Pines Estate comprises the major future land release area for Lennox Head. A draft Master Plan for the subdivision of the land has recently been lodged with the Department of Infrastructure, Planning and Natural Resources, in accordance with the provisions of State Environmental Planning Policy No. 71 – Coastal Protection. The layout provided in the draft Master Plan indicates the provision of approximately 650 additional dwellings within the Estate, providing for about 1600 people. Commercial, community and sporting facilities are also proposed.

With respect to active open space, the developers have dedicated 6.1 hectares of land to Council for the provision of sporting facilities. The sporting infrastructure will be constructed by the developer on a staged basis linked to the land release program for the remainder of the Estate. This complex will ultimately comprise 2 senior football fields (which can also be used as 4 junior fields), 2 cricket ovals and six netball courts.

The construction of the Complex is to occur on a staged basis (including the provision of temporary amenities) with the current release program being as follows:

- **Stage 3** – (Approved) Dedication of land to Council.
- **Stage 4** (Approved) Two junior football fields, which can be used as a cricket oval in the summer months, and temporary parking. Filling of this portion of the site has commenced;
- **Stage 6** (Proposed) - 2 netball courts;
- **Stage 8** (Proposed) - 4 netball courts and 2 senior football fields (which can also be used as 4 junior fields in winter months and a cricket oval in summer months); and
- **Stage 10** (Proposed) - Permanent parking and amenities.

(It should be noted that a development application to construct the Complex in one stage was lodged with Council in June 2004, and is pending determination).

The Structure Plan proposes that once the senior football fields become available, both Rugby Union and Rugby League would relocate from Williams Reserve to the Pacific Pines Fields. Similarly, once the cricket ovals become available, Cricket would relocate from Williams Reserve and Megan Crescent to the Pacific Pines Estate Fields, the Henderson Land and / or an alternative site as discussed below. This would enable the adaptation of the Williams Reserve and Megan Crescent Fields to alternative open space activities, as outlined below.

3. Megan Crescent Playing Field

The existing field is currently used for junior and senior cricket in the summer months and by junior soccer during the winter months. There are a number of shortfalls with the existing facility which contribute towards it not being utilised as fully as what would otherwise be expected. These include a lack of shade and insufficient room for club house / amenity buildings or off-street parking.

With the proposed provision of additional facilities, particularly at Pacific Pines Estate and the Henderson Land, the demands on the site from both cricket and soccer are likely to be reduced, and alternate open space activities uses can be considered on this site. Accordingly, at such time as adequate larger playing fields are provided elsewhere, the Megan Crescent Playing Field will be redeveloped for the following purposes:

- Tennis courts;
- Offstreet parking & associated amenities; and
- Mini-Skate Park.

Such infrastructure will be designed with the view to providing enhanced buffers to the Bora Ring immediately to the east of the site and to the environmental areas to the west of the site. Careful design will also be needed to ensure that impacts on nearby residents are minimised and that appropriate pedestrian linkages are provided through the site.

4. Williams Reserve

Williams Reserve contains one adult football field (which converts to two junior fields) and a junior field. The reserve is currently utilised by both Rugby League and Rugby Union. In summer months, the reserve is used as a cricket oval. However, given the

dimensions and standard of the oval, it is typically used for lower grade and junior cricket.

The Lennox Head Strategic Plan identified that once adequate alternate playing fields are provided, Williams Reserve should become a “village green” or “gathering place” whilst preferably continuing to provide some low key playing field function.

The Structure Plan therefore proposes that once adequate football and cricket facilities are provided elsewhere in Lennox Head, the playing field function of Williams Reserve will be removed. Williams Reserve will then be converted to a District Park for passive recreation. Open grassed spaces would be incorporated into the layout to enable the ongoing use of the Reserve for informal sporting activities and community gatherings, however organised sports would no longer be played at the Reserve. Given the timeframes associated with the provision of alternate sporting infrastructure, it is likely to be some time before this aspect of the Structure Plan eventuates.

This medium to longer term objective will be complemented by the proposal to construct an integrated multi-purpose community building on the northern end of Williams Reserve in the vicinity of the existing community buildings and rural fire service shed. Please refer to Section 4.5.3 for more information on this matter.

5. Henderson Land

Ballina Shire Council currently owns approximately 15 ha of land immediately to the west of the proposed Pacific Pines Playing Fields Complex. It is currently zoned 1(d) Rural (Urban Investigation) Zone under the Ballina Local Environmental Plan 1987 and is classified as Operational Land under the Generic Plan of Management. At the time of purchase, this land had tentatively been considered for the provision of sporting infrastructure.

The land is relatively flat adjacent to the Ballina Nature Reserve, however rises as one moves away from the Reserve. The provision of a buffer to the Ballina Nature Reserve, which is identified as a ‘high conservation area’ may also present a further constraint to the area of land available for the provision of sporting facilities. Given the topography of the site, significant modification to the landform will be required to provide sporting infrastructure on this land. This will also have implications regarding the cost of provision of such facilities.

On the eastern portion of the site, immediately adjoining the Pacific Pines Estate Complex there is an area of relatively flat land. To the west of this area, located on elevated land overlooking the Pacific Pines Estate Playing Complex, is a clump of vegetation which appears to have some historical significance with respect to early European settlers in the area.

Notwithstanding the above constraints, a preliminary review of the site indicates that the land available will be capable of catering for a significant proportion of the active open space identified by Council’s consultant as required for the ultimate population, as well as providing area for a district park. Detailed design work is required to determine the exact layout and nature of sporting facilities and district park area able to be catered for on the subject land. It is envisaged that the land will provide 2 to 3 adult fields, tennis and / or netball courts, and a mini skate park. The detailed design work will be undertaken as part of the preparation of the Section 94 Contributions Plan for open space facilities.

The detailed design work for the Henderson Land will determine the adequacy of, or shortfall in, the provision of active open space for the ultimate Lennox Head population. It is proposed that once the adequacy or shortfall has been determined further investigation will be carried out regarding potential sites within the study area suitable for the provision of additional facilities. The options available in this regard include the consolidation and rationalisation of existing facilities and / or the provision of new stand-alone facilities.

Conclusion

It is envisaged that the above approach will provide for adequate Active Open Space infrastructure to cater for the needs of the Lennox Head community. Table 4-7 and Table 4-8 summarise the results of the above discussion.

Table 4-7 Active Open Space - Ultimate Provision (Area) (Population Approximately 13,900*)			
Facility	Area (Hectares)	Required Area	Shortfall / Surplus
Skennars Head	4.7 ha	-	-
Megan Crescent	1.7 ha	-	-
Pacific Pines Estate	6.1 ha	-	-
Henderson Land	15.0 ha**		
Sub Total	27.5 ha	-	-
Centralised Facilities	3 ha		-
Total	30.5ha	23.63ha	+ 6.87***
*	<i>For the purpose of projecting demand for Active Open Space, 5% of the total rural population has been added to the Lennox Head population.</i>		
**	<i>The constraints identified regarding the Henderson Land may result in a shortfall in the provision of active open space. If a shortfall is identified via detailed design the provision of additional active open space on other land within the Study Area will be investigated.</i>		
***	<i>Given ** above the total provision of active open space is likely to approximately equate to the required area of 23.63 ha.</i>		

Table 4-8 Active Open Space - Ultimate Provision (Location and Type) (Population Approximately 13,900*)				
Sport	Rate	Requirement	Provision	Location
Soccer	1 field per 1500 people	9.2 Fields	4 Senior Fields 6 Junior Fields	2 Senior Fields & 6 Junior Fields Skennars Head Road 2 Senior Fields Henderson Land and / or alternative location
Football (League & Union)	1 field per 4000 people	3.47 Fields	2 Senior Fields 2 Junior Fields	Pacific Pines Estate
Cricket	1 field per 4000 people	3.47 Ovals	3 Ovals	2 at Pacific Pines Estate 1 at Henderson land and / or alternative location
Netball	1 court per 2000 people	6.95 Courts	7 Netball courts	Pacific Pines Estate / Henderson Land
Tennis	1 court per 2000 people	6.95 Courts	7 Tennis courts	Megan Crescent
Skate boarding	No fixed standard.	-	2 Mini skate parks	1 at Megan Crescent 1 at Henderson Land
Other infrastructure*	Various	-	-	Centralised facilities in Ballina.
* For the purpose of projecting demand for Active Open Space, 5% of the total rural population has been added to the Lennox Head population. ** Such as hockey, AFL, baseball, athletics and swimming pools.				

4.5.3 Summary of Findings – Community Facilities

The Community Facility Needs Analysis primarily examined the community's requirements for multi purpose community halls, libraries and preschools. As with the Open Space Needs Analysis, the work involved developing recommended standards to be applied Shire-wide which would then be applied to Lennox Head. A summary of the key findings of this work is provided below.

Multi Purpose Community Halls

Recommended Shire Wide Standard

ERM recommends that on a Shire wide basis, one multi purpose community hall be provided for every 4,000 people. A multi purpose hall is defined as a building with a floor area of approximately 250m², which includes the following:

- A meeting hall, which is able to be divided into two separate spaces, suitable for social activities of local groups;
- At least two offices for groups or visiting services;
- A capability for use for vacation and after-school care;
- A kitchen suitable for meal preparation;
- Toilets;
- Access for the disabled; and
- Secure equipment storage; and an attached play area to assist with childcare for the users of the hall.

Proposed Approach for Lennox Head

Lennox Head currently has three halls on public land, managed by Council, namely the Lennox Head Scout Hall, the Lennox Head Recreation Hall and the Lennox Head CWA Hall – all of which are located on Williams Reserve. The potential use of the halls is limited, as they are small, single purpose facilities that are not freely available to the community due to the current management arrangements. It is assumed for planning purposes that the existing halls are equivalent to one multi purpose hall as described above. (It should also be noted that the Department of Sport and Recreation facilities are also on public land however they are not managed by Council and not always readily accessible to the community). Given that the current population of Lennox Head is approximately 6600, there is currently a shortfall with respect to halls to meet the needs of the current population.

In order to meet the existing shortfall, ERM therefore recommends the expansion or replacement of the existing Recreation Hall and / or CWA Hall to provide a minimum of 100m² of additional floor space in a manner that meets the criteria listed above.

Detailed cost estimates will need to be prepared to determine the most cost effective way of achieving this upgrade – opportunities include expansion and/or refurbishment of the existing buildings or, alternatively, the construction of a new purpose built facility. There are currently funds available under the applicable S94 Developer Contribution Plan, which may be allocated to the construction of such a facility. Additional Council funds, grant money and/or community fund raising is likely to also be required.

Either proposal will require careful liaison and negotiation with the management committees currently overseeing the existing halls to ensure that the needs of these groups and the existing and likely future users of the facilities are met as part of any

redevelopment or expansion of the facility. It is also noted that such a proposal may require the relocation of the Rural Fire Service shed to an alternative site. Such a site will need to meet Rural Fire Service site selection requirements with respect to response times and accessibility. Alternatively, it may be possible to integrate the Rural Fire Service requirements as part of the expanded multi purpose facility.

In addition to the above facility, the Structure Plan envisages that there will also be a second multi purpose hall constructed in the vicinity of the Pacific Pines Neighbourhood Centre in Pacific Pines Estate. This facility will be designed in a manner to be of adequate area (that is, approximately 500m²) such that when combined with the provision of the facilities on Williams Reserve, it will cater for the ultimate needs of the population of Lennox Head. This is likely to require construction to occur in at least two stages. A S94 Contributions Fund will be developed to achieve this.

Pre-schools and Childcare Centres

The ERM Report advises that the current levels of childcare provision in the Shire are generally adequate to meet the needs of the existing population and in excess of accepted standards of 1:3 to 1:10 places for children aged up to 4 years. However, in order to meet the needs of future estimated population growth, it will be necessary to provide approximately five additional facilities by 2021. These should be provided in new growth areas of the Shire, including Lennox Head.

The ERM Report further advises that a Shire-wide strategy needs to be developed concerning the provision of Pre-schools and Childcare Centres. In particular, Council needs to determine whether it wishes to continue to be involved in the provision of such infrastructure or whether this should be left to the private sector.

The Structure Plan acknowledges a need for the identification of a site for the construction of a Childcare Centre, with the preferred site being in the vicinity of the proposed Pacific Pines Neighbourhood Centre. The decision as to whether Council or the private sector will provide such infrastructure has not been canvassed at this time.

Libraries

The ERM Report advises that a Shire-wide strategy also needs to be developed concerning the provision of Library Infrastructure. In this regard, ERM advises as follows:

“Whilst Ballina has approximately 44% of the Shire’s population, 71% of the borrowing’s occur from this Library. This suggests that many residents of other centres prefer to borrow from the central library facility. It is likely that visits to the library are combined with shopping or other activities that are centred in Ballina. As a result, and given the limitations on expansion of the Branch Libraries, additional library facilities should be concentrated in Ballina. Existing Branch libraries should be retained to provide a service to the residents of the Shire. As borrowing statistics indicate that the majority of borrowing’s occur from the central library, additional branch libraries are not recommended.”

Given the above, the Structure Plan does not propose the expansion of the existing Library Facilities in Lennox Head at this time. Rather, this issue will be forwarded to Council’s Library Committee and (pending the recommendation of the committee) possibly the Richmond River Regional Library for further consideration.

4.6 Service & Trade Centre Investigations

4.6.1 Background

During the preparation of the Strategic Plan, a number of representations were made concerning the need for suitable locations within Lennox Head for activities such as mini-storage sheds, landscape suppliers and other similar “light industrial” or “service trade” uses. The Lennox Head Strategic Plan therefore identified that a low key light industrial / arts / craft park will be provided at an appropriate location in Lennox Head. The investigation and provision of this facility was to occur via the following steps:

- Investigations into the need for such a facility;
- Investigations into the appropriate location for such a facility; and
- The provision of such a facility (via normal processes).

4.6.2 Demand for Facility

A Shire wide analysis of industrial land provision has revealed that there is an average of 16.4m² of industrial zoned land per person. This is slightly below the regional average of 17.5m². At the current time, there is no industrial zoned land in Lennox Head, with much of the demand for industrial land generated by the existing Lennox Head population being accommodated outside of the Lennox Head District.

Table 4-9 Light Industrial Estate - Demand outlines the demand for industrial land generated by both the existing Lennox Head community and the projected population of the area.

Table 4-9 Light Industrial Estate - Demand			
	Population	Demand (ha) (16.4m ² / person)	Demand (ha) (17.5m ² / person)
Projected Population	13,500	22.1 ha	23.6 ha
Existing Population	6,600	10.8 ha	11.5 ha
Industrial Land Required to meet needs of additional population	-	11.3 ha	12.1 ha

If industrial land was to be provided to meet the total projected population of Lennox Head, between 22 and 24 hectares would be required. However, the Lennox Head facility is envisaged to accommodate low scale/non polluting industrial uses and service trades. Accordingly, a proportion of the industrial land requirements generated by the Lennox Head population will still need to be accommodated elsewhere – in areas designated for general industrial activities. Similarly, there will be a need for some of the Shire’s industrial activities to be centralised in the larger industrial estates of Ballina and Wollongbar.

Therefore, for the purpose of this exercise, it has been assumed that the needs of a population the equivalent of the existing population (6600) will continue to be accommodated outside of Lennox Head, whilst the needs of a population the equivalent of the projected additional population (6900) will be accommodated within Lennox Head. Accordingly, a site approximately 11 hectares in size is required to accommodate this facility. Additional lands will also be required to buffer the facility from adjoining land-uses.

4.6.3 Site Selection Criteria

The following criteria have been used to select an appropriate site for the light industrial / service area;

- **Size** - Approximately 11 hectares in size plus buffer areas;
- **Access** - Easy access to transportation / arterial road networks;
- **Topography** - Flat or gently undulating topography;
- **Separation** – Opportunity to be buffered from environmentally sensitive and residential areas;
- **Servicing** – Land either serviced or able to be serviced; and
- **Visual** – Non visually prominent location.

Each of the potential development precincts in Lennox Head have been assessed against these criteria. The results of this assessment are shown in Table 4-10 Light Industrial Estate - Site Selection Matrix.

Table 4-10 Light Industrial Estate - Site Selection Matrix						
Precinct	Size	Access	Topography	Separation	Servicing	Visual
A	✗	✓	✓	✓	✓	✗
B	✗	✓	✓	✗	✓	✓
C	✓	✓	✓	✓	✓	✓
D	✓	✓	✓	✓	✓	✓
E	✗	✗	✓	✗	✓	✓
F	✓	✗	✗	✓	✓	✗
G	✓	✗	✗	✗	✓	✓
H	✗	✗	✗	✗	✓	✗
I	✓	✓	✗	✗	✓	✗
J	✓	✗	✗	✗	✓	✗
K	✓	✓	✗	✗	✓	✗
L	✓	✓	✗	✗	✓	✗
M	✓	✓	✗	✓	✓	✓
N	✓	✗	✗	✗	✓	✗
O	✗	✗	✗	✗	✓	✗
P	✗	✗	✗	✗	✓	✗
Q	✗	✓	✗	✗	✓	✗
R	✗	✓	✗	✗	✓	✗
S	✗	✓	✓	✗	✓	✓
T	✓	✓	✓	✓	✓	✗
U	✓	✓	✗	✓	✓	✓

4.6.4 Conclusion

From the above analysis, Areas C and D appear to be the candidate sites best suited to the provision of the Light Industrial Estate. However, as advised in Section 3.3.5, Area D is located within the floodplain and requires filling in order to facilitate urban development. It also has poor geotechnical characteristics. Accordingly, Area D is not considered appropriate for urban development.

As such, Area C has therefore been identified in the Structure Plan as the preferred site for the future development of the service and trade centre. It is noted that careful design would need to occur to ensure that adequate buffers are provided to

environmentally sensitive areas in close proximity to the site as well as to Sanctuary Village and various rural / residential properties in the area.

As previously discussed in Sections 3.3.4 and 4.12, the recently introduced Farmland Protection Project has identified Area C as being “Regionally Significant Agricultural Land”. The S117 Direction introduced concerning this project prevents Council from considering rezoning proposals for urban or rural / residential purposes on such land. Accordingly, it is not appropriate for the Structure Plan to identify this land for urban development at this time. The mapping for this Project will be refined over the coming 12 month period. Should this work reveal that the land does not warrant protection for agricultural purposes, Area C has been identified as the preferred candidate site for a Service Trades Centre.

Further information concerning design, access and other requirements can be also be found in Section 3.3.4 of the Structure Plan.

4.7 Urban Water Management Strategy

Council adopted the Ballina Urban Water Management Strategy (UWMS) in September, 2003. The UWMS involves a “whole of water cycle” approach to planning water supply, wastewater management and stormwater services in Ballina Shire over the next 30 years. The process for preparing the Strategy was extensive, taking over two years to complete. The Strategy covers the urban centres of Ballina and Lennox Head as well as the villages of Alstonville, Wardell and Wollongbar.

The 2003 Strategy has identified some significant changes to the earlier 1992 Sewage Treatment and Ocean Discharge Strategy, and incorporates many new integrated urban water initiatives. Some of the key new initiatives developed by the 2003 Strategy, relevant to the Lennox Head Structure Plan, are outlined below:

- **Limit the ultimate capacity of Lennox Head Sewage Treatment Works** – The Lennox Head Sewage Treatment Works (STW) currently has a capacity of 18,000 equivalent persons (EP). Earlier planning and approvals had proposed the closure of the Ballina STW and the staged upgrade of the Lennox Head STW to 58,000 EP. The new UWMS limits the ultimate capacity of Lennox Head STW to 28,000 EP. This is supported by a decision to retain Ballina STW and commence planning immediately for the upgrade of this facility.
- **Lennox Head STW Stage 2 Optimisation Upgrade** – Planning will commence for the immediate upgrade of the treatment technologies at the Lennox Head STW. This will enable an increase in the capacity of the plant from 18,000 EP to its ultimate capacity of 28,000 EP.
- **Enhanced Wastewater Treatment Initiatives** - The existing wastewater is treated to a level which meets statutory standards. During the exhibition of the UWMS, there was broad community support for treatment standards that go beyond the minimum required. The UWMS therefore recommends further investigation of enhanced treatment options at Lennox Head STW. Options to be investigated include micro filtration.
- **Disposal and Use of Reclaimed Water** – Large quantities of highly treated reclaimed water are generated by the Lennox Head STW. Under the 1992 Strategy, during dry weather, a proportion of reclaimed water is used for irrigation of sporting and open space infrastructure, whilst unused reclaimed water is discharged into the ocean at Skennars Head. During wet weather, the opportunities for irrigation are diminished and the water is mainly discharged into the ocean. The UWMS proposes an alternative approach to managing treated wastewater which involves the following:
 - **80-100% Target for Dry Weather Reuse of Reclaimed Water** - These proposed dry weather targets are significantly higher than those adopted in previous Strategies. This will be achieved by way of an intensification of the existing irrigation program for open space infrastructure, the use of dual reticulation in larger new release areas and the development of wetland regeneration areas.

-
- **Residential Reuse (Dual Reticulation)** – This involves the provision of two sets of water pipes to urban areas: the first providing potable water and the second containing reclaimed water. The potable water is used for activities like drinking, cooking and bathing, whilst the reclaimed water is utilised for flushing of toilets and watering of gardens (other than edible crops). This system is already being established at Ballina Height Estate in Cumbalum, where all new houses must be plumbed for dual reticulation.

The UWMS recommends that the policy be further developed and extended to other areas in the Ballina / Lennox Head catchment where applicable. Initial indications are that there are opportunities to extend this program to some of the proposed new release areas in Lennox Head. It is therefore a requirement of the Lennox Head Structure Plan that for all future developments where dual reticulation is considered viable, the developer will be required to fund the installation of dual reticulation pipe work and services. Given the costs associated with the installation of such infrastructure, it is likely to only be viable in the larger green field release areas.

- **50 Hectare Trial Regeneration Wetland** – In order to achieve the target for dry weather reuse, it will be necessary to implement large-scale reuse projects. In this regard, planning is to commence shortly for a 50 hectare trial regeneration wetland in the vicinity of Lennox Head. Whilst detailed planning for the wetland has yet to commence, initial indications are that it is preferable for it to be located to the north of the Lennox Head STW. This will enable the pipes to deliver the reclaimed water to the regeneration wetland to also be used to distribute water to future dual reticulation areas in Lennox Head as well as for the irrigation of sporting infrastructure at Pacific Pines Estate.

- The Structure Plan has identified an area of land between Lennox Head Village and the Ballina Nature Reserve as a potential candidate site for the construction of this wetland (identified as Area D on the Structure Plan Map). The land is currently in private ownership and would need to be acquired by Council in order for this project to proceed on this site.

This land is considered unsuited for urban development because of a number of physical constraints - including flooding and geotechnical characteristics. These factors do not, however, limit the use of the site for regeneration wetlands. The provision of a regeneration wetland in this location would also provide the opportunity to establish a substantial wildlife corridor linking natural wetlands of environmental significance in this locality. There may also be opportunities to provide some ancillary recreation and/or open space facilities in conjunction with the wetland.

Detailed engineering and environmental investigations will need to occur into this site prior to this matter progressing further. These investigations would also need to examine whether or not there are feasible alternative sites in the Lennox Head area. Should these investigations conclude that the nominated land is the preferred site, a range of approvals will need to be obtained prior to construction. In this regard, the design of the facility would need to consider a wide range of issues including protecting sensitive environments in the locality, providing appropriate separation to future residential development, acid sulphate soil management and mosquito hazard reduction.

Note: A large amount of detailed technical work has occurred as part of the development of the UWMS. The above information is simply a brief snap-shot of some of the key initiatives relevant to the Lennox Head Structure Plan. Further information concerning the UWMS can be viewed on Council's web page www.ballinacouncil.com.au (via the "water" link).

4.8 Review of Arterial Road Network

4.8.1 Introduction

Eppell Olsen Pty Ltd was engaged by Council to review the arterial road network strategy for Lennox Head. This work recalibrated the work undertaken as part of the preparation of the Road Network Strategy having regard for the outcomes of the Lennox Head Strategic Plan and the revised population projections for the area. A summary of the findings is provided below.

4.8.2 Existing Road Network Strategy

With respect to Lennox Head, the existing adopted Arterial Road Network Strategy provides for the following:

- **North Creek Road Extension** – an extension of North Creek Road from the Skennars Head Road intersection to Angels Beach Drive in East Ballina;
- **Hutley Drive Extension** – aimed at linking the Skennars Head Road / North Creek Road intersection with the Coast Road / North Creek Road intersection via Lennox Meadows Estate and Pacific Pines Estate. This involves two pieces of work:
 - Southern extension – linking the southern end of the existing Hutley Drive in Lennox Meadows Estate to the Skennars Head Road / North Creek Road intersection; and
 - Northern extension - linking the northern end of the existing Hutley Drive (also in Lennox Meadows Estate) to the Coast Road / North Creek Road intersection.
- **Ross Lane / Hutley Drive Link Road** – to link Ross Lane (generally in the vicinity of Sanctuary Village) with the southern Hutley Drive extension (in the vicinity of the Pacific Pines Estate Playing Fields).

In addition to the above, the Lennox Head Strategic Plan provided for the realignment of the eastern end of Ross Lane to the south so as to remove through traffic from the Fig Tree Hill and Sanctuary Village area and to enable the rehabilitation of the wetland and heath environments in that area. This realignment would connect to the Ross Lane Link Road and provide access to future development area in the vicinity of Sanctuary Village.

4.8.3 Findings of the Review to the Road Network Strategy

North Creek Road Extension - The modelling undertaken as part of the review has highlighted the need for an additional corridor linking Lennox Head with East Ballina. Without an additional north-south corridor, traffic levels on the Coast Road will exceed the design capacity of that road and substantially decrease the level of service provided. This will necessitate lane duplication of the existing Coast Road carriageway which, given the visual prominence of this Road, is not considered ideal. Given that there is an existing zoned road corridor, in Council's ownership, linking North Creek Road with Angels Beach Drive it is considered reasonable to continue planning for the construction of that road. It is noted, however, that there are a number of important environmental issues that will need to be addressed as part of the design and approval stages of that project.

Hutley Drive Extensions – The modelling undertaken as part of the review confirms the desirability, from a traffic management perspective, of extending Hutley Drive as proposed in the earlier modelling. There are, however, a number of important planning issues which will need to be addressed as part of the detailed planning and approval phase of this project. These are outlined below:

- **Southern extension** - The traffic modelling has indicated that should this road not be constructed, a significant proportion of traffic that would have used this road will be diverted to Montwood Drive. Should this occur and the link road to Ross Lane be constructed, traffic flows on Montwood Drive will exceed its environmental design capacity to an unacceptable level. If the link road to Ross Lane is not constructed, the modelling indicates that Montwood Drive will be operating at the upper limits of its design capacity – at approximately twice the traffic flows currently experienced on Montwood Drive.

State Government Agencies have previously expressed concern about the southern extension of Hutley Drive. In particular, the Agencies have expressed concern about the road encroaching within 50 metres of the existing vegetation adjoining the Ballina Nature Reserve. The road also traverses an area currently listed under State Environmental Planning Policy No.14 Coastal Wetlands (SEPP 14). The road is sited at the rear of existing residences and also has the potential to result in land use conflicts in this regard. The ERM Report has confirmed that much of the existing vegetation adjoining the Nature Reserve is of ecological value and warrants an environmental protection zoning.

The above environmental concern needs to be balanced against the impact on residents in Montwood Drive of substantially increasing the traffic movements on this road. Other issues include the NSW Rural Fire Service requirement to provide adequate buffering between urban development and bushfire hazard areas (such as the Nature Reserve). Similarly, Ballina DCP No. 11 Mosquito Management has identified the importance of providing separation between mosquito habitats and residential areas. It is also relevant to note that a major water supply line and sewer rising main currently traverse the area in question, which are extremely unlikely to be relocated due to both topographic and financial constraints.

The only way to obtain a definitive decision with respect to the future of the southern Hutley Drive extension is for Council to prepare a comprehensive Application and Environmental Impact Statement for assessment and determination. This work would need to weigh up the environmental, social and economic costs and benefits of the road, consider the implications of not providing the road and examine alternatives. Given the timeframe and costs associated with this, it is not possible to obtain a definitive answer in the timeframe associated with the preparation of the Structure Plan. Accordingly, the Structure Plan proposes the following approach:

- Identifying Hutley Drive Extension as the preferred arterial road linkage in the vicinity of Pacific Pines Estate; and
- The removal of the proposed Ross Lane / Hutley Drive arterial road linkage. This approach clearly identifies Hutley Drive as part of Council's preferred network, but which provides some (limited) flexibility should this not eventuate.

-
- **Northern extension** – As advised above, the modelling has confirmed the importance of the Hutley Drive extension as a whole. Should the northern extension not be constructed, traffic flows which would otherwise use this linkage will be diverted along Silkwood Drive and Henderson Lane. This approach is less than ideal for an arterial road, particularly once Pacific Pines Estate is fully constructed and the Henderson Farm developed. Accordingly, the Structure Plan advocates the construction of the northern extension of Hutley Drive.

It is noted that there are a number of technical difficulties with the construction of this part of this road - primarily associated with the construction of the intersection of Hutley Drive with the Coast Road and North Creek Road. Issues at this location include the topography of the area, the location of major Telstra services and managing the mixing of traffic flows from three separate arterial roads. These issues mean that the northern most section of this road will need to be constructed on part of Area I. Accordingly, the Structure Plan requires that any future development of Area I will need to make provision for the construction of this road to the satisfaction of Council's engineers.

In addition to the above, the Strategic Plan identified the community desire to ensure that arterial roads are designed and located in a manner so they do not form major physical barriers within the urban area of Lennox Head. The existing constructed Hutley Drive corridor traverses residential areas and has been constructed in a manner which makes it compatible with normal residential activities. Similarly, both the northern and southern extensions will need to be constructed in a manner that is sensitive to the needs of both existing and future residents. In this regard, it is noted that Hutley Drive had initially been envisaged to be an 80km/hour road. Through the Structure Planning work, this has been reduced to 60 km/hour, thereby substantially reducing the impact of the road on the predominately residential areas adjoining the road.

Ross Lane / Hutley Drive Link Road - The traffic modelling indicates that traffic levels on the proposed link road to Ross Lane is expected to be at the level normally associated with a local distributor road, rather than an arterial road. As such, whilst it will provide a useful corridor between the Sanctuary Village area and the sporting and commercial infrastructure at Pacific Pines Estate, it is not an essential link in the arterial road network. Rather, it is a linkage which would be desirable in the overall road network.

Whilst the traffic flows between Hutley Drive and Ross Lane are expected to be modest for an arterial road, should the southern Hutley Drive extension not be constructed, they will be high enough to significantly impact on the function of Montwood Drive. In addition, given that the road will need to be elevated out of the floodplain, the construction of the road will be relatively expensive to service low traffic numbers. Accordingly, the Structure Plan proposes that this road be removed from the arterial road network for Lennox Head. The Structure Plan also proposes, however, that a corridor be retained for the purpose of providing infrastructure and services.

Realignment of Eastern End of Ross Lane - Two issues have emerged as part of the Structure Planning work which impact on this proposal. Firstly, it has become evident that the Ross Lane Link Road does not appear to form an essential link in the arterial road network for Lennox Head and has been removed from the Structure Plan. Secondly, there would seem to be only limited opportunity for residential development in the vicinity of Sanctuary Village. These issues impact on firstly the need for the realignment of Ross Lane from a traffic management perspective and also the financial viability of constructing this road.

The major impacts of not proceeding with the realignment, relate to traffic safety in the vicinity of Fig Tree Hill and Sanctuary Village and the removal of opportunities to link habitats in the area. With respect to traffic safety, Council's Civil Services Group advises that the intersection of Ross Lane and Fig Tree Hill Drive will require upgrading in the medium term to provide for a safer road network. Sanctuary Village will also be encouraged to upgrade their driveway access.

With respect to environmental outcomes, Council's Environmental Scientist advises that given the longevity of Ross Lane in its current location, the road has very little impact on the adjacent vegetation. As a result, the surrounding vegetation communities are healthy functioning ecosystems. The relocation of Ross Lane to the south will have the same ecological effect as the current road intersecting important ecological fauna habitats while only achieving minimal environment gain.

In light of the above, the previously foreshadowed realignment of Ross Lane is not proposed as part of the Lennox Head Structure Plan.

4.9 Pedestrian and Mobility Study

Introduction

The Ballina Shire Council Pedestrian Access and Mobility Plan (PAMP) has been developed to provide a comprehensive and integrated framework for the development of coordinated, convenient and safe pedestrian networks within the Ballina Shires' towns, villages and hamlets. It focuses on the major "arterial" pedestrian linkages, rather than local networks.

The PAMP Study endeavoured to gain a detailed knowledge of the pedestrian areas and users behaviour to improve functionality of existing pedestrian networks. The PAMP Study intention is to ensure areas where major trip generators are located - such as hospitals, local clubs, major employers, retail centres, schools, community facilities and popular recreational areas - have adequate and appropriate pedestrian facilities and are well connected to cycling and public transport facilities.

Community consultation, site investigations and pedestrian counts were conducted to determine high pedestrian activity areas. Pedestrian accident data were used to assist with identifying pedestrian hot spots and the warranting of appropriate pedestrian facilities. In addition, a survey was distributed to community groups within the Shire. The survey results assisted with Ballina Shire Council's understanding of pedestrian network's facilities, operational performances and deficiencies, and identifying key pedestrian needs and hazardous areas along pedestrian routes.

A draft of the PAMP Report was place on exhibition for public comment in late 2003. As such, the outcomes of the exhibition process were not known at the time of drafting the Lennox Head Structure Plan. Accordingly, the provisions of the draft document have been incorporated into the Structure Plan on the understanding that they may be subject to review following the exhibition of the PAMP Report.

Outcomes of PAMP Study relevant to Lennox Head

Extracts from the draft PAMP Report relating to the existing and proposed pedestrian network for Lennox Head are provided from Figure 6 to Figure 9. Subject to adoption of the final PAMP Report by Council, this network will be developed on a staged basis as funding becomes available. To assist with this, it is envisaged that a S94 Developer Contributions Plan will be developed to ensure that new development contributes towards the construction of such infrastructure.

In addition to the routes identified in the PAMP Report, the Structure Plan identifies the desirability of providing a pedestrian / cycleway linkage from the Sanctuary Village / Figtree Hill area to the playing fields and neighbourhood centre at Pacific Pines Estate.

Figure 6 Existing Pedestrian Network – Skennars Head

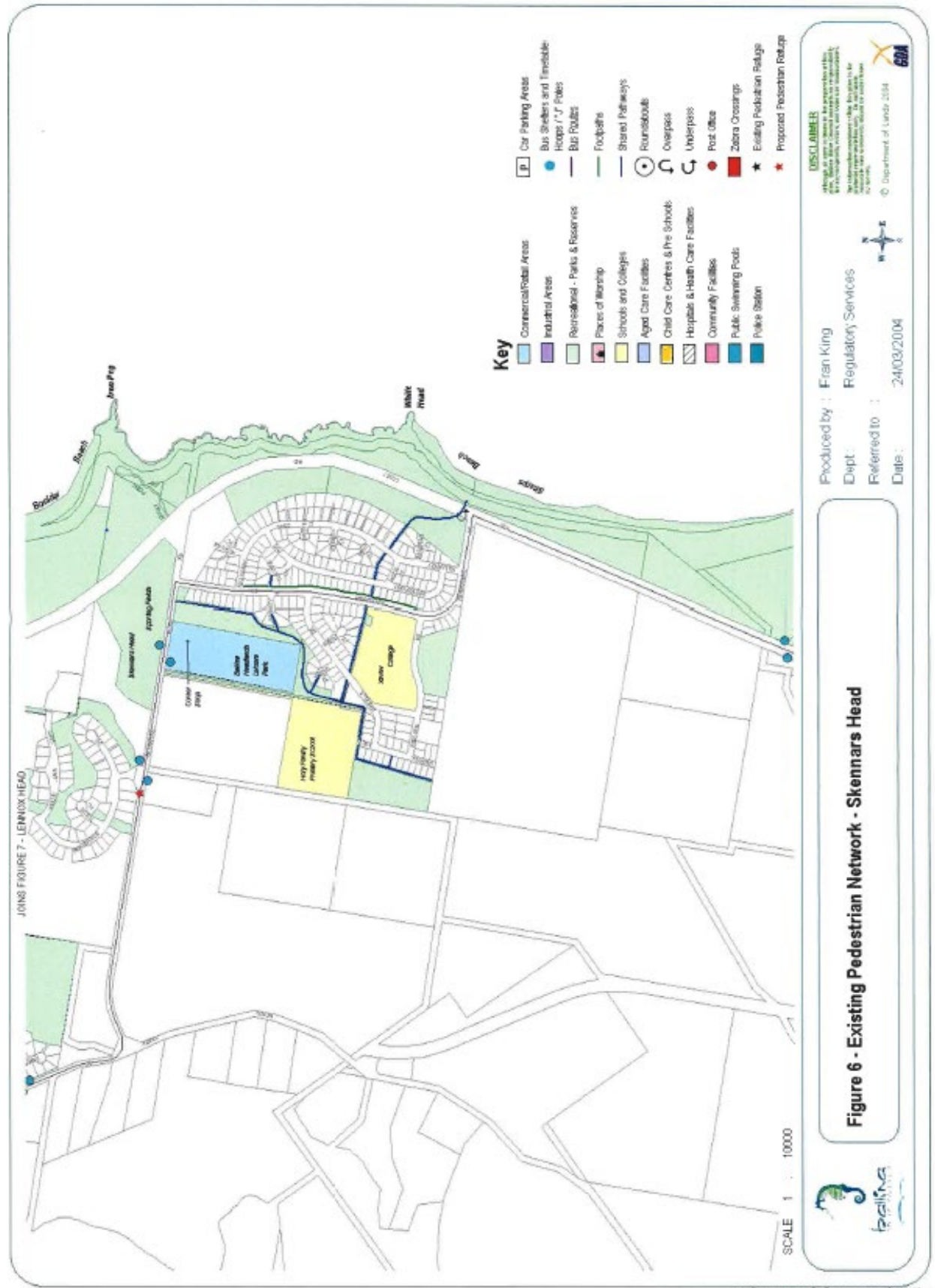


Figure 7 Existing Pedestrian Network – Lennox Head

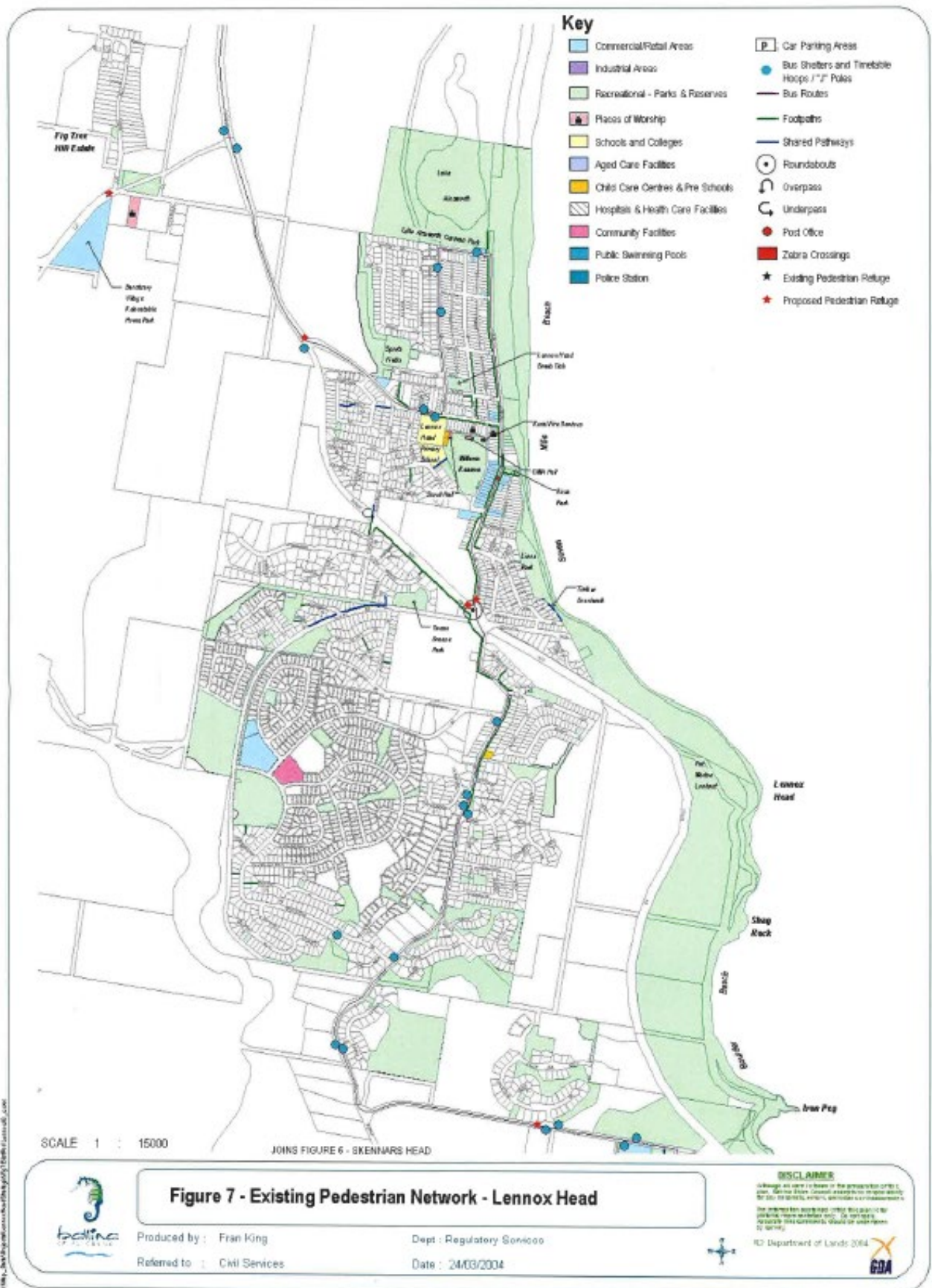


Figure 8 Proposed Pedestrian Network Hierarchy – Skennars Head

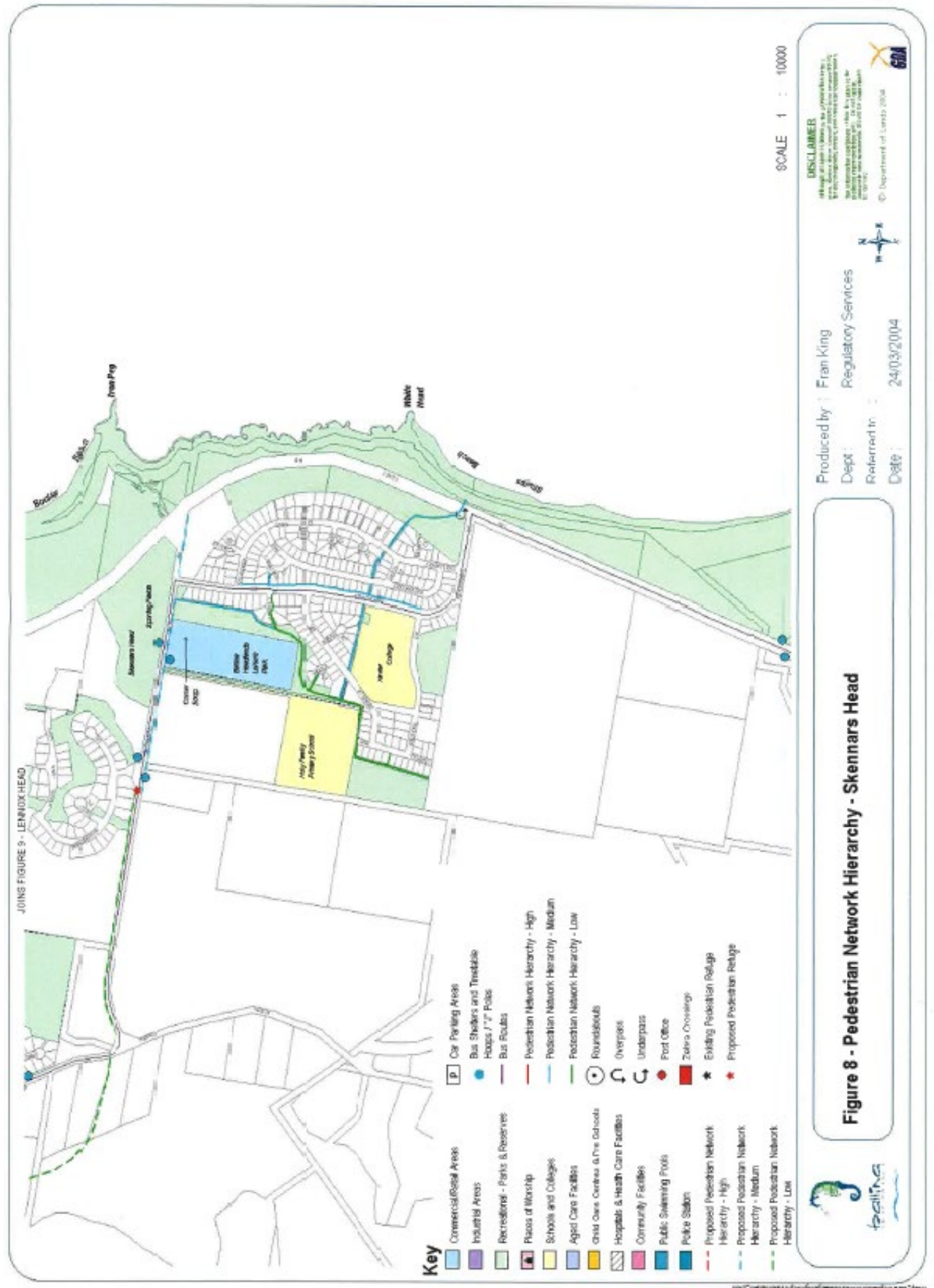
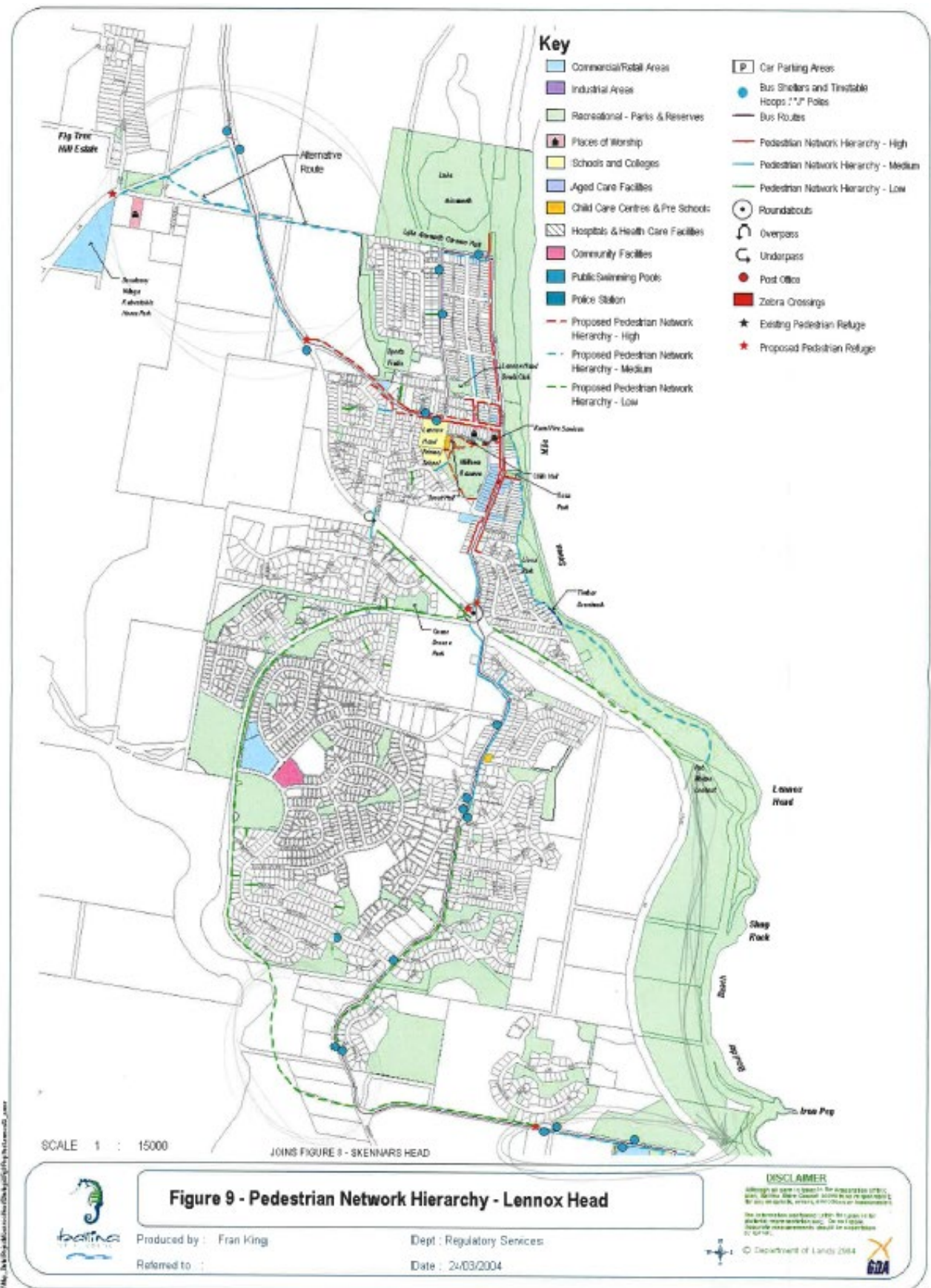


Figure 9 Proposed Pedestrian Network Hierarchy – Lennox Head



4.10 Public Transport Infrastructure Needs Analysis

The Public Transport Co-ordination Committee has prepared a needs analysis of public transport infrastructure associated with bus and taxi services within Ballina Shire. The analysis focused on the town centres of Ballina, Lennox Head, Alstonville, Wardell and Wollongbar. The study examines both current and future infrastructure needs in the Shire. The information from the study will be used to guide planning of public transport services and facilities within Ballina Shire and inform the preparation of a developer contribution plan for public transport infrastructure.

With respect to Lennox Head, the Needs Analysis identified the following issues:

- Companies providing local bus services are of the view that the current bus zones in the Lennox Head Village Centre meet their needs, but that a bus shelter is required outside the Lennox Head Medical Centre;
- Companies providing interstate coach services, are of the view that there is no need / demand for an inter-change facility;
- It is important to provide for link roads through major residential areas as this enables the creation of a more efficient public transport network. In this regard, it is important to link Montwood Drive and Hutley Drive in the future;
- There is a need for a designated Taxi Rank in Lennox Head. Investigations required as to the location and establishment of such a facility; and
- During peak holiday periods there is a need for a high frequency bus service between Ballina and Lennox Head.

These issues will be considered on an ongoing basis as part of the future planning and development of Lennox Head.

4.11 Bushfire Hazard Mapping

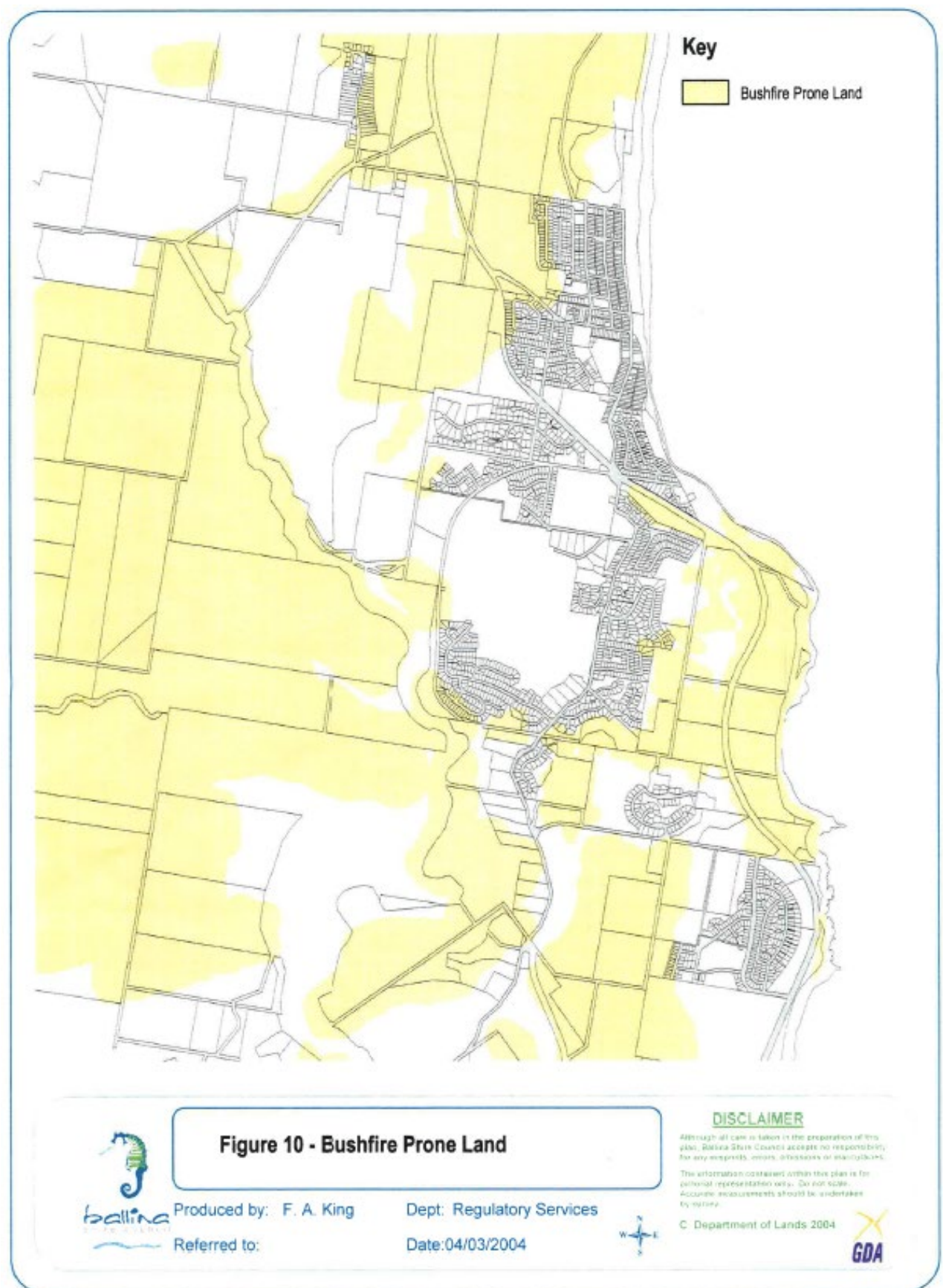
Planning for Bushfire Protection 2001 is a guide for designing subdivisions and buildings in bushfire prone areas. It was produced by the NSW Rural Fire Service and the Department of Infrastructure Planning and Natural Resources (DIPNR – formerly planningNSW). Changes to planning laws require that these guidelines are taken into consideration in the assessment process for developments in “bushfire prone” areas.

Bushfire prone lands are generally those forests or grasslands that, by virtue of their bushfire hazard and proximity to existing and proposed development, hold significant risk to property in the event of a bushfire. The area that is identified as bushfire prone also includes a buffer zone that extends beyond areas that may be directly affected by a bushfire to account for factors such as ember attack and exposure to radiant heat.

During 2003, the NSW Rural Fire Service and Ballina Shire Council undertook a review of bushfire hazard mapping in the Shire. This mapping is to be used as a planning tool in conjunction with *Planning for Bushfire Protection 2001*. The outcomes of this review, as it relates to Lennox Head, are illustrated on Figure 10. This Figure comprises an extract from the “Ballina LGA – Bush Fire Prone Land Map” (as certified by the Commissioner of the NSW RFS on 16 September, 2003).

For land identified as bushfire prone on the Ballina LGA – Bush Fire Prone Land Map, certain protective measures need to be incorporated into building and subdivision design to render the development less susceptible to damage or destruction from bushfire. These measures often include a requirement for “low fuel” or cleared buffers (asset protection zones) between development and vegetation. In most instances, applications for development in these areas are referred to the NSW Rural Fire Service for comment during the assessment process.

Figure 10 Bushfire Prone Land



4.12 Farmland Protection Project

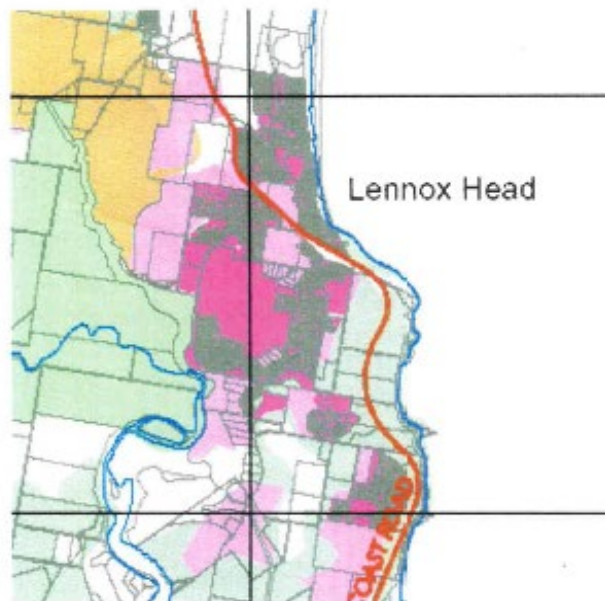
The Northern Rivers Farmland Protection Project is a State Government initiative that aims to protect land that is suitable for agriculture on a regional basis. In mid 2003 a set of draft maps identifying significant agricultural lands were placed on exhibition for public comment. On 12th January, 2004, a S117 Direction was issued by the Minister Assisting the Minister for Infrastructure & Planning for the interim protection of land identified as State or regionally significant farmland, pending the finalisation of the project. The S117 Direction prevents Council from considering rezoning proposals for urban or rural / residential purposes on such land as until the project is completed and / or the Direction expires in 2 years time.

An extract from the draft maps, as they relate to Lennox Head, is provided at Figure 11. Findings of particular relevance to the Lennox Head Structure Plan are as follows:

- There is no “State Significant Farmland” identified in or around Lennox Head;
- There is a large contiguous area of “Regionally Significant Farmland” located in the Newrybar Valley to the north of Ross Lane. This land is currently primarily used for sugar cane production, however other agricultural pursuits also exist in this area. The presence of this regionally significant resource, and the importance of providing effective buffers to this resource, limits opportunity for the further expansion of Lennox Head north of Ross Lane;
- South of Ross Lane there is another area of land identified as being “Regionally Significant Farmland” (comprising Part Areas B, C and D on Figure 2). As discussed above, as this area is identified as “Regionally Significant Agricultural Land”, the S117 Direction introduced concerning this Project prevents Council from considering rezoning proposals for urban or rural / residential purposes on such land. Accordingly, it is not appropriate for the Structure Plan to identify this land for urban development at this time. The mapping for this project will be refined over the coming 12 month period. Should this work reveal that the land does not warrant protection for agricultural purposes then more detailed investigations regarding the preferred land uses specified in Sections 3.3.4 and 3.3.5 will be undertaken. The foreshadowed use of Area D as outlined in this Structure Plan would not appear to be inconsistent with the content of the Farmland Protection Project.
- A number of the open paddocks around Lennox Head are considered to be “Locally Important Agricultural Land”. These areas are typically zoned for either environmental protection, scenic protection or agricultural purposes and are not proposed for urban or semi-urban development as part of the Structure Plan.

Figure 11 Farmland Protection Project

Figure 11 Farmland Protection Project



LEGEND

Important Agricultural Lands

1. State Significant Farmland Protection Areas

- Alstonville Plateau
- Cudgen-Duranbah Plateau

2. Regionally Significant Farmland Protection Areas

- Mid-Richmond / Upper Richmond Floodplain
- Rosebank Region
- Lower Floodplains
- Ewingsdale-Myocum Region
- Tyalgum Region
- Hogarth Range

3. Locally Important Areas

- Locally Important Agricultural Lands

- Committed Urban Zones
- Potential Future Settlement Areas
- National Parks, State Forests

- Land Parcel Boundary
- Catchment Management Board Boundary
- Local Government Boundary
- Highways, Major Roads
- + Major Railways
- Major Rivers

4.13 Adoption of the Structure Plan

The draft Structure Plan was exhibited for a period of 60 days. Following the exhibition process a Special Meeting of Council's Planning Committee was held on 7 September 2004 to consider the draft Structure Plan. Council's Planning Committee made the following recommendation, which was subsequently endorsed at Council's Ordinary Meeting of 23 September 2004:

1. *That the adoption of the Draft Structure Plan be deferred until a further meeting has been held with the Community Access Group for the purpose of devising a timeframe and mechanism for further community input to the Draft Structure Plan.*
2. *That the outcome of that meeting of the Community Access Group be reported to the Council at the earliest possible time.*
3. *That, in relation to the Area "M", referred to on the Draft Plan (represented by Draft Amendment No. 59 to the Ballina LEP), the Council proceed with the rezoning process forthwith, noting that this rezoning proposal had commenced prior to the Community Aspirations Strategic Planning mechanism.*

A further three meetings were held with members of the Lennox Head Community Access Group who generously gave up their time. Several options for further community input into the draft Structure Plan were considered by the Community Access Group including opportunities for further direct engagement with the broader Lennox Head community. The option favoured by the Community Access Group was the establishment of a Committee to:

- Monitor implementation of the Lennox Head Strategic Plan;
- Facilitate/enable community input and information sharing;
- Prioritise actions pertaining to the Lennox Head Strategic Plan;
- Assist Council to source funding for prioritised actions, for eg. business partnerships, government funding, community fundraising; and
- Work on other matters as requested by the Lennox Head community.

The Committee will be representative of the diversity of interests of the Lennox Head community and will initially comprise representatives from the following Lennox Head organisations:

- Lennox Head Landcare
- Tara Downs Landcare
- Lennox Head Parents and Citizens Association
- Lennox Head Residents Association
- Lennox Head Community and Sports Association
- Lennox Head Chamber of Commerce
- Ballina Environment Society
- Two landowner representatives

The Committee will also include B Ward Councillors. Council staff will attend committee meetings in a secretariat / information sharing role.

It is proposed that the Committee will, at its initial meeting(s), make recommendations in relation to its operation, such as the frequency of meetings, election of the Chair, formation of working groups, the Committee Charter, Committee membership etc. The

Committee will employ a variety of strategies to facilitate continued community input into the planning process in Lennox Head.

The Structure Plan was adopted by Council on 9 December 2004.

4.14 Glossary of Planning Documents & Policies

The following provides a list of key planning documents and policies which should be taken into the consideration in the preparation of any site analysis, rezoning proposal, Master Plan or development application prepared for land within the Study Area.

Ballina Shire Council Planning Documents and Policies

- Ballina Local Environmental Plan 1987
- Lennox Head Community Aspirations Strategic Plan
- DCP No. 1 – Urban Land
- DCP No. 3 – Coastal Hazard protection – Lennox Head
- DCP No. 4 – Ballina Airport
- DCP No. 5 – Bed and Breakfast Establishments
- DCP No. 8 – Lennox Head Village Centre
- DCP No. 11 – Mosquito Management
- Ballina Shire Contributions Plans

State Environmental Planning Policies

- State Environmental Planning Policy No. 11 – Traffic Generating Developments
- State Environmental Planning Policy No. 14 – Coastal Wetlands
- State Environmental Planning Policy No. 26 – Littoral Rainforests
- State Environmental Planning Policy No. 44 – Koala Habitat Protection
- State Environmental Planning Policy No. 64 – Advertising and Signage
- State Environmental Planning Policy No. 65 – Design Quality of Residential Flat Development
- State Environmental Planning Policy No. 71 – Coastal Protection

State Government Planning Documents and Policies

- NSW Coastal Policy 1997
- NSW Coastal Design Guidelines
- Planning for Bushfire Protection
- Sustainable Urban Settlement Guidelines (2000)
- North Coast Urban Design Guidelines
- North Coast Regional Environmental Plan