

Southern Cross
Precinct
Master Plan



quality solutions sustainable future

Southern Cross Precinct Master Plan

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Introduction

1.1 Background

GeoLINK has been engaged by Ballina Shire Council to prepare an integrated master plan for Council-owned land adjacent to the Ballina / Byron Gateway Airport and the Southern Cross Industrial Estate.

The Master Plan will provide Council with a framework for the detailed planning and release of land in the study area. Future release of land in this area will assist in achieving sustainable growth for Ballina.

Ballina Shire Council is the owner of a large area of undeveloped land adjoining the Southern Cross Industrial Estate. The estate itself has been developed and sold by Council over a number of years. Adjoining the industrial estate is the Ballina / Byron Gateway Airport and the Ballina waste management centre, both of which are owned and operated by Council.

The Master Plan for this area will inform the upcoming preparation of a new comprehensive local environmental plan for the Ballina Shire.

1.2 Structure of this Report and Its Scope

This report provides and describes a Master Plan for the Southern Cross Precinct area. Section 2 of the report provides a brief overview of the study area, its local context and the opportunities and constraints that exist.

Section 3 of the report sets out the design rationale for the Master Plan. This is developed from an understanding of the relevant issues, opportunities and constraints at play in relation to the land.

Section 4 presents the Master Plan, describes its broad intent and the concepts outlines for various precincts within the area. This final section also provides commentary on the implementation of the Master Plan, in terms of broad costs and timeframes.

Appendices A – G contain a summary of the outcomes of discussions with Council staff regarding issues relevant to the study area, community and government consultation as well as summaries of previous reports, studies and planning documents that are relevant to, or have been undertaken for, the locality and a cost estimate for implementing key aspects of the master plan.

1.3 Further Information

For further information relating to this Master Plan, or to clarify any aspects of this report, please contact Simon Waterworth or Garry Murray of GeoLINK on 6651 7666.

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The Study Area

2.1 The land

The study area is shown in **Illustration 2.1**. It includes all land owned by Council to the north and west of the Southern Cross Industrial Estate. Information about the individual properties that form the study area is contained in **Table 2.1**. The property descriptions of land within the study area are shown in **Illustration 2.2**.

Table 2.1 The Study Area

<i>Property</i>	<i>Area (ha)*</i>	<i>Current Zoning</i>	<i>Notes</i>
Lot 373 DP 755684	43.0	7(a) Environmental Protection (Wetlands)	Vegetated area adjacent to the southern boundary of the Ballina Nature Reserve
Lot 374 DP 755684	104.8	7(a) Environmental Protection (Wetlands) and Part 1(b) Rural (Secondary Agricultural)	Predominately vegetated. Part of a larger vegetated area south of the Ballina Nature Reserve Southern part of lot contains approved sand quarry (owned and operated by council).
Lot 213 DP 755864	32.0	7(a) Environmental Protection (Wetlands)	Predominately vegetated. Part of a larger vegetated area south of the Ballina Nature Reserve
Lot 212 DP 755864	32.0	Part 1(b) Rural (Secondary Agricultural) and Part 7(a) Environmental Protection (Wetlands)	NW corner of lot is vegetated. Remainder contains part of airport runway.
Lot 3 DP 114805	2.8	1(b) Rural (Secondary Agricultural)	Former crown road reserve, contains extreme eastern end of airport runway.
Lot 211 DP 755864	16.0	1(b) Rural (Secondary Agricultural)	Contains part of airport runway.
Lot 298 DP 775864	5.5	1(b) Rural (Secondary Agricultural)	Cleared land adjacent to airport runway.

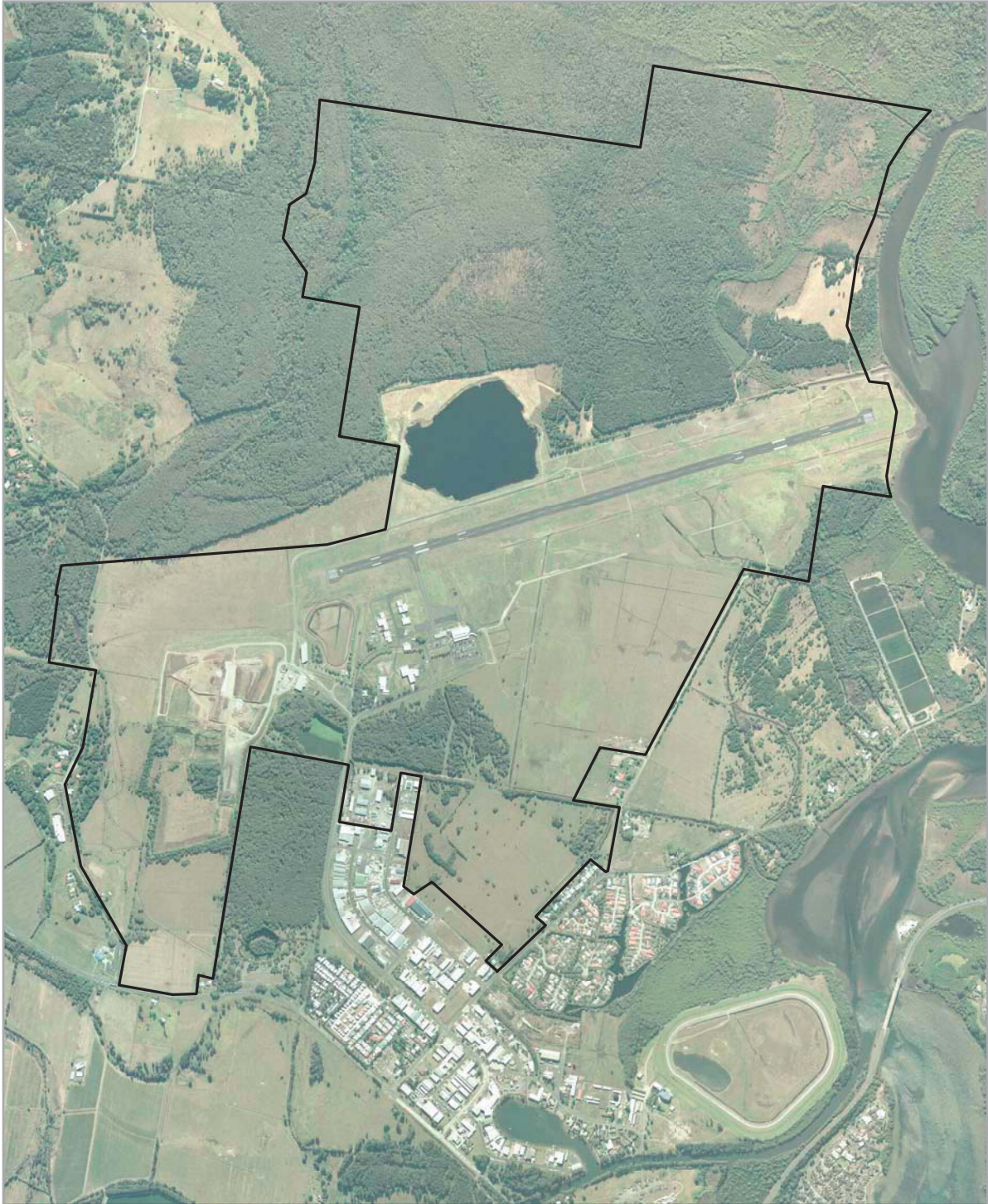
<i>Property</i>	<i>Area (ha)*</i>	<i>Current Zoning</i>	<i>Notes</i>
Lot 297 DP 775864	4.9	1(b) Rural (Secondary Agricultural)	Partly cleared, partly vegetated. Bisected by an unmade road reserve.
Lot 7 DP 1043261	61.4	1(b) Rural (Secondary Agricultural)	Contains the airport terminal, car park and associated facilities. SW part is vegetated and subject to LEP Amend. No.95. Part of land is leased (the old terminal building). Contains a number of separate titles, created for lease purposes, covering buildings within the airport complex.
Lot 11 DP 1031554	53.5	1(b) Rural (Secondary Agricultural)	Immediately west of the airport. Contains majority of waste facility and motor cross track. SE corner vegetated, remainder cleared.
Lot 7 DP 793980	2.3	1(b) Rural (Secondary Agricultural)	Cleared land adjacent to airport carpark.
Lot 8 DP 793980	30.1	1(b) Rural (Secondary Agricultural)	Cleared land SE of airport.
Lots 1-6 DP 123781	4.4	1(d) Rural (Urban Investigation)	Part of property subject to LEP Amend. No.95.
Lot 1 DP 237752	10.9	1(d) Rural (Urban Investigation)	Subject to LEP Amend. No.95.
Lot 67 DP 1022473	3.3	4 Industrial	Contains Council works depot.
Lot 100 DP 1086895	1.5	4 Industrial	Cleared land with scattered vegetation.
Lot 86 DP 1087144	9.0	4 Industrial	Cleared land with scattered vegetation.
Lot 114 DP 755684	20.0	1(b) Rural (Secondary Agricultural)	Western boundary of study area, frontage to Gallans Road. Contains Waste Facility Infrastructure (ponds).
Lot 386 DP 755684	23.0	1(b) Rural (Secondary Agricultural)	Western part of study area, cleared land with scattered vegetation. Contains southern edge of landfill site.
Lot 4 DP 537560	2.3	1(b) Rural (Secondary Agricultural)	Directly south of Lot 386. Frontage to Pacific Highway.
Lot 1 DP 1085094	2.1	4 Industrial	Located on south side of Southern Cross Drive, north of caravan parks.

<i>Property</i>	<i>Area (ha)*</i>	<i>Current Zoning</i>	<i>Notes</i>
Lots 70 & 71 DP 778628	0.3	4 Industrial	Located within existing industrial estate. Expected that, in time, will be developed for industrial purposes.
Lot 69 DP 778628	0.3	4 Industrial	Contains existing industrial use.
Lot 72 DP 749501	0.08	4 Industrial	Located within existing industrial estate drainage reserve off Racecourse Road.

* Approximate areas

As shown in Illustration 2.2, a small area of privately owned land exists in the middle of the study area (Strata Plans 34603 and 64456). These properties do not form part of the Master Plan, however, for mapping ease, they have not been excluded from plans provided herein.

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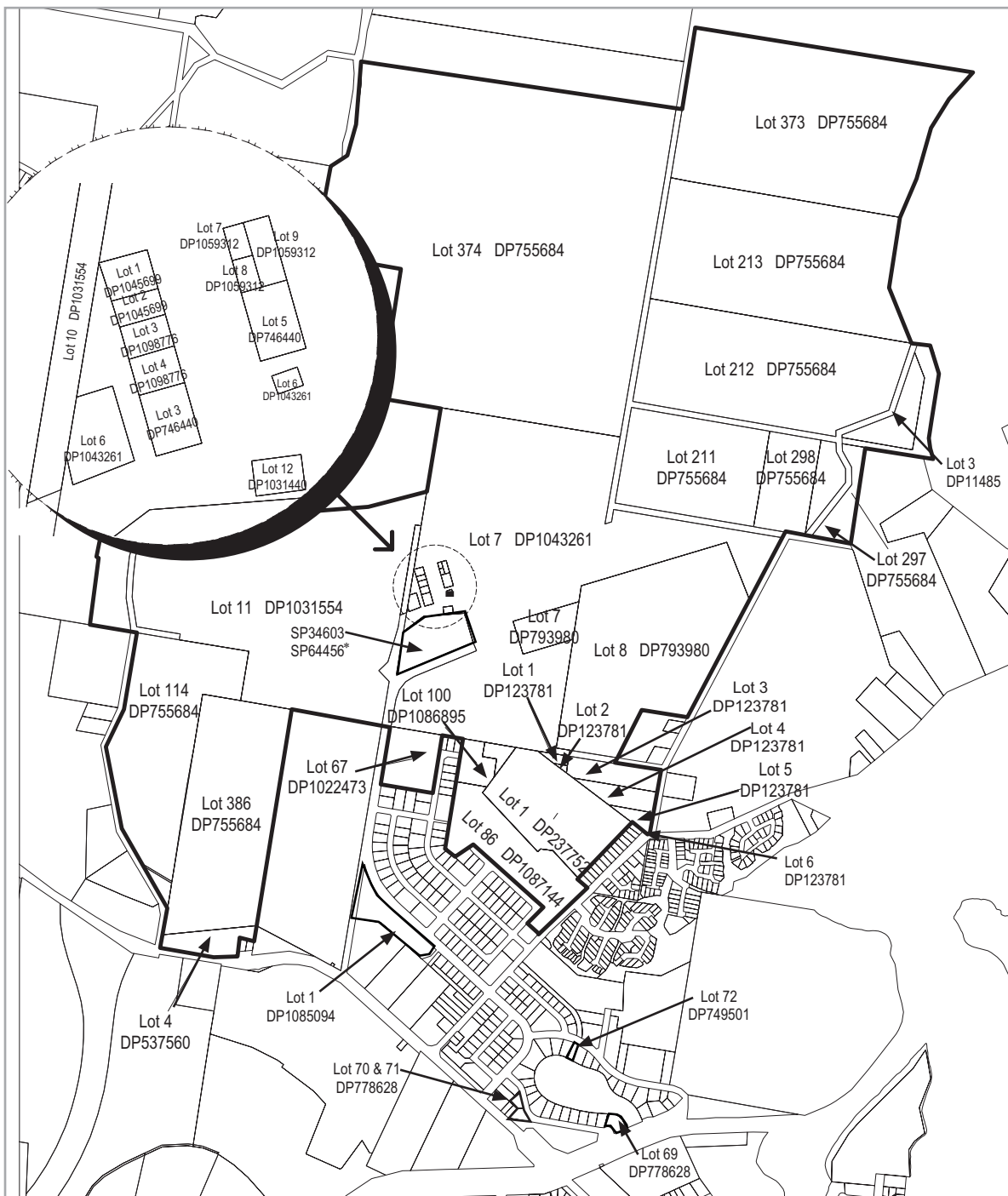
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GeoLINK
environmental management and design

Southern Cross Precinct Masterplan
875447

Study Area

Illustration 2.1



Note

* Privately owned land not subject to masterplan



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2.2 Context

The land is located at the north-western edge of the township of Ballina, generally adjacent to the Pacific Highway. As shown in Illustration 2.1, the land contains a mixture of land uses including vegetated parcels of land most of which have significant ecological constraints, vacant generally cleared land and existing uses such as the Ballina Waste Facility, motor cross track, industrial land uses, Council Works Depot and the Ballina / Byron Gateway Airport.

2.3 Land Use

As shown in Illustration 2.3, a number of leases are nominated on Council's GIS database. These leases are summarised below.

Residential Leases:

- 54 North Creek Road – a 'continuing' Residential Tenancy Agreement able to be terminated with 60 days notice.
- 70 Gallans Road – a 'continuing' Residential Tenancy Agreement able to be terminated with 60 days notice.

Other Leases and Agreements:

- Richmond River Motor Cycle Club Inc, Lease Agreement (Willow Park Raceway) – terminates 30 June 2008.
- Elliott Agistment Agreement (not a lease). This is an ongoing, essentially month-by-month agreement (would require at least 60 days to vacate – preferably more to totally vacate).
- Ballina & District Equestrian Club Lease Agreement - terminates 30 June 2008.
- Airport buildings – hangar site lease agreements are in place within this precinct. There are 10 hangar site lease agreements (land component), some of which have newly entered 10 year agreements.

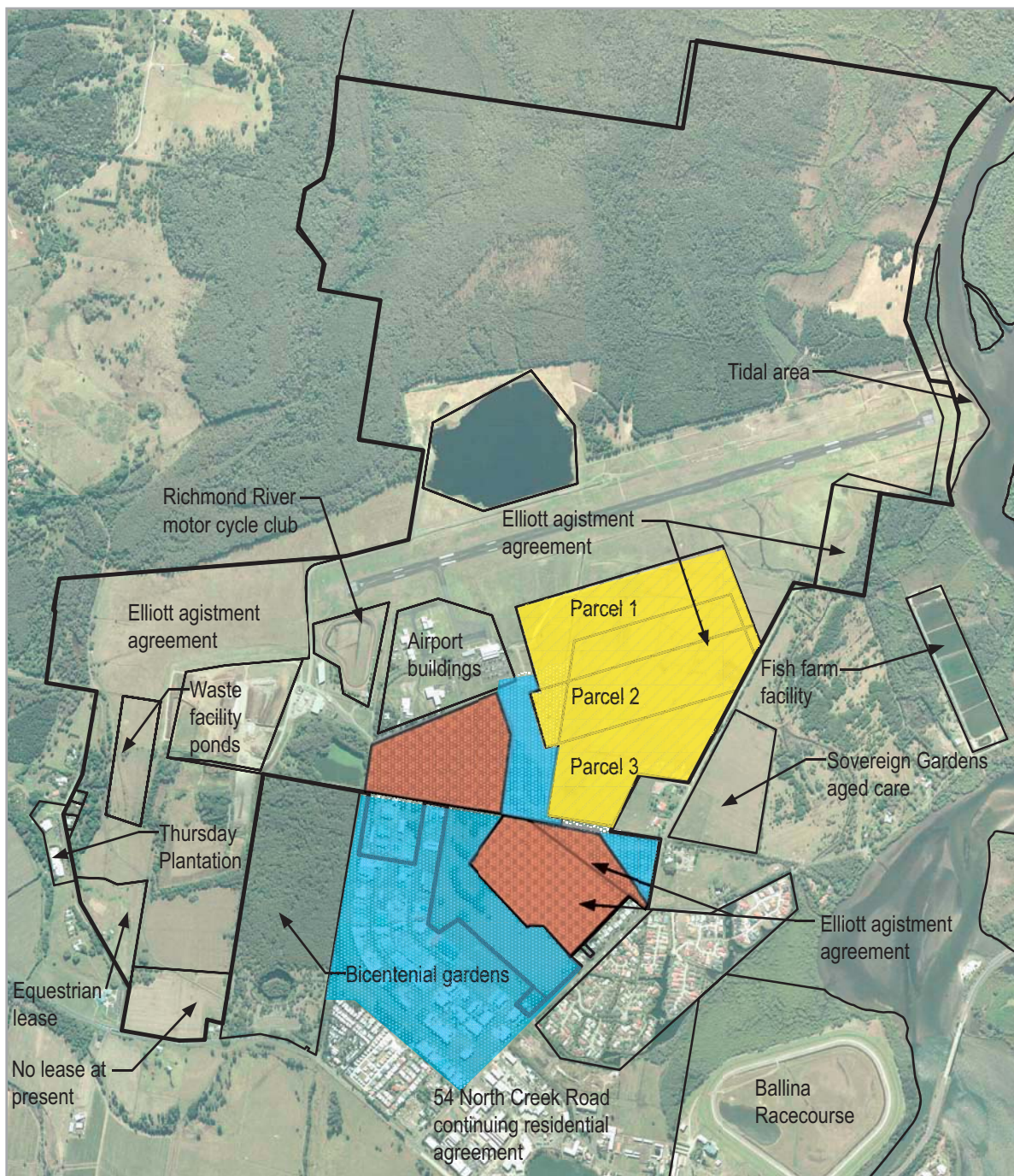
Residential land uses fronting North Creek Road are located in close proximity to the study area, particularly the approved Sovereign Gardens seniors living development, which is currently under construction.

Other notable land uses in the area include an aquaculture / tourism facility located east of the study area and the Thursday Plantation tea-tree operation on the western boundary.


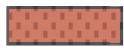

The Ballina Byron Gateway Airport presents a number of constraints to the master plan area. Height restrictions constitute the major constraint. The height restrictions are applicable to the airport land are shown in Illustration 2.4. The restrictions (required by Civil Aviation Safety Authority) have been taken into consideration in the preparation of the Master Plan.

The existing waste facility and also its proposed expansion present potential conflict with existing and possible future land uses within the precinct. These constraints could relate to noise, odour and amenity issues.

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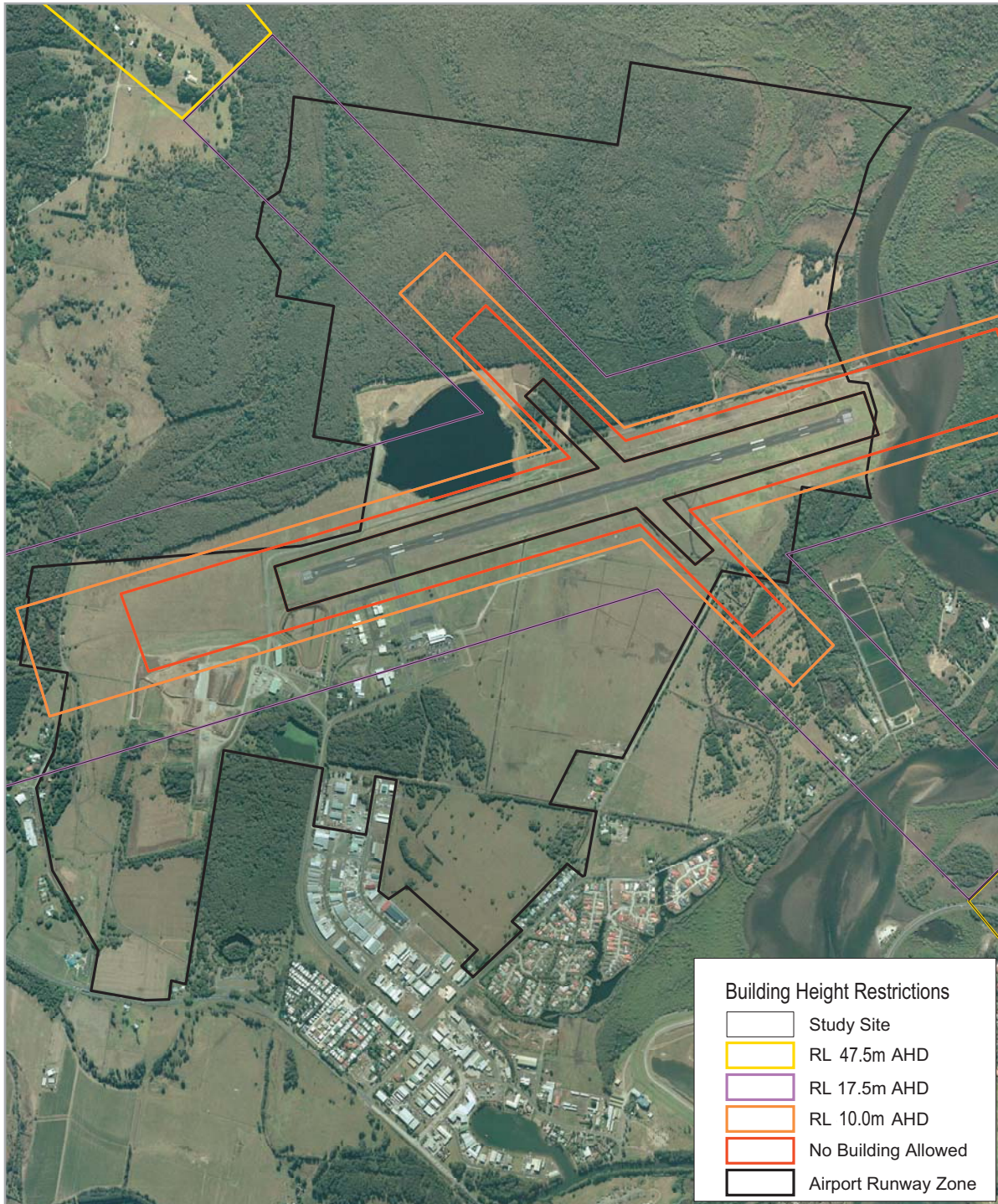


LEGEND

-  Land relating to Southern Cross Industrial Estate
Structure Plan and Concept Design, Ballina Shire Council (Maunsell, March 2004)
-  LEP Amendment 95
Extension of Southern Cross Industrial Area
-  Future Planning Parcels referred to in 'Ballina Airport Master Plan' (Connell Wagner, 2004)



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Note

Council resolved at its June 2007 Ordinary Meeting that the Southern Cross master planning process continue on the basis that there is no cross runway planned at this time. This illustration reflects the study area prior to that resolution. The master planning process has proceeded in accordance with the resolution.



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2.4 Key Issues

There are a number of key issues that need to be addressed as part of the master plan process. A summary of these issues is detailed below in this report.

2.4.1 Ecology

Illustration 2.5 provides an ecological overview of the study area, taken from a combination of existing Council mapping, aerial photography analysis and a brief site inspection. As shown, the northern part of the study area contains the largest intact area of native vegetation – Swamp Sclerophyll Forest and Woodland. This vegetation adjoins the southern extent of the Ballina Nature Reserve. The eastern part is lower lying, comprising mangroves and salt marsh. Parts are also somewhat degraded.

Closer to the existing industrial development, there is a smaller intact area of Swamp Sclerophyll and Swamp Oak / Swamp Sclerophyll Woodland, located on the eastern and western side of the airport access road. The vegetation on the eastern side became protected by environmental protection zoning with the gazettal of LEP Amendment No.95.













Elsewhere within the study area, small areas of native vegetation exist on boundaries (see Illustration 2.5). The remainder of the site contains cleared low grassland, with isolated and scattered trees (generally swamp sclerophyll species). A search of relevant threatened species databases, however, indicates records of four threatened species in or adjacent to these areas. These are Wallum Froglet (*Crinia timnula*), Grass Owl, Black Flying Fox and Grey-headed Flying Fox. The Wallum Froglet was identified at a number of locations within the investigation area. Generally, these species can be protected through adequate design that maintains the forest / woodland vegetation and provides shallow grassed drainage swales.

More detailed assessment of these threatened species would need to occur as part of the detailed design of future development. With respect to land in the northern section of the study area, Council has nominated Lots 373, 374 and 213 as pilot bio-banking sites (although their suitability is yet to be confirmed).

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Vegetation Communities

-  Camphor Laurel with Mixed Rainforest Regrowth
-  Cleared/Partially Cleared Land
-  Isolated Camphor Laurel and Melaleuca quinquenervia
-  Low open Forest
-  Mangrove Complex
-  Mangroves
-  Mixed Eucalypt Woodland
-  Quarry Area
-  Saltmarsh Complex
-  Subtropical Rainforest
-  Swamp Oak / Swamp Sclerophyll and Sclerophyll Forest / Woodland
-  Swamp Sclerophyll Forest and Woodland

Wallum Froglet Records

-  06/05/2005
-  09/05/2005
-  02/06/2005
-  unknown



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2.4.2 Acid Sulphate Soils

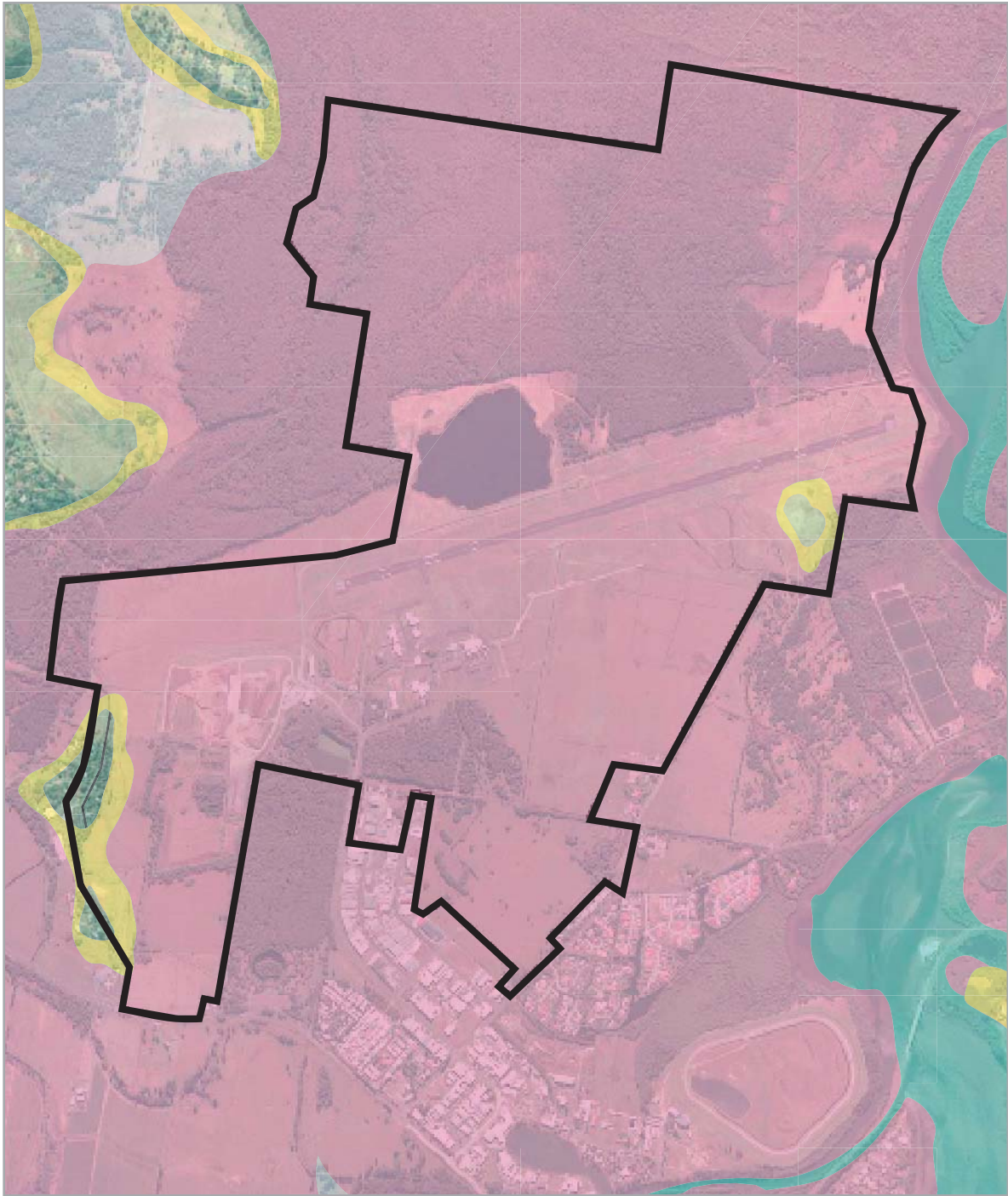
Illustration 2.6 shows council's acid sulphate planning map for the study area. As shown, almost the entire site is mapped as Class 2 acid sulphate lands on these maps.

Pursuant to clause 36 of the *Ballina Local Environmental Plan 1987*, any works below existing ground surface, or works that are likely to lower the watertable, require the consent of Council.

These requirements indicate a high likelihood of acid sulphate soils being found on site. Any development proposal, therefore, should be accompanied by a detailed Acid Sulphate Soils Management Plan, prepared in accordance with the *Acid Sulphate Soils Management Manual* (ASSMAC, 1998).

Given that any development site would need to be filled above the design flood level, it is anticipated that excavation below existing ground surface will be minimal. Nonetheless, proper assessment and management of acid sulphate soils will be a key criteria for any site development.

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LEGEND

Acid sulfate classes

- 1 Any works
- 2 Works below the ground surface,
Works by which the water table is likely to be lowered
- 3 Works beyond 1 metre below the natural ground surface
Works by which the water table is likely to be lowered beyond 1 metre below natural surface
- 5 Works within 500 metres of adjacent class 1,2,3 or 4 land which are likely to lower the water table below 1 metre AHD in class 1,2,3 or 4 land

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2.4.3 Road Access

One of the main outcomes of the master plan should be to provide for an efficient network for all travel modes, while maximising the opportunities for public transport use in order to minimise dependence on private car travel. This should involve an efficient road layout that would support bus routes or extensions to existing services including the consideration of a new airport access that provides a more direct route to and from the airport and possible extension of North Creek Road. Cyclist and pedestrian use will also need to be taken into consideration.

As detailed in the Southern Cross Industrial Estate Structure Plan and Concept Design prepared by *Maunsel*, future development in the locality has the potential to impact on the road hierarchy in the locality. The main impacts will potentially be on the Pacific Highway. This issue will need to be addressed within the master plan. Other collector roads such as Southern Cross Drive and minor collector roads such as North Creek Road may have potential impacts as a result of future development which will also need to be addressed.

Existing unformed road reserves will need to be investigated to determine their relevance and the feasibility of utilising these as part of any future development. In addition to this, access to the airport will also be potentially affected by increased levels of traffic as a result of the future development in the locality and this will also need to be addressed.

2.4.4 Flooding

Ballina Shire Council prepared a Floodplain Management Study for the Ballina floodplain in 1996. Parts of the study area are affected by a 1% AEP Flood Event. Council is currently conducting additional modelling for future flood scenarios. Land to the north east of the industrial estate and the waste facility will be included as filled land in this modelling. However, Council will require any further proposed development, which will require filling, to be run through the flood modelling process to ensure no adverse impact on flood behaviour.

2.4.5 Buffers

There are a number of existing and potential future uses within the study area that have the potential to create impacts and conflict within the study area. The master plan will need to consider these in detail and provide for appropriate buffer areas between these uses. Design and location of uses will also play an important role in mitigating against potential conflicts. A good example of this is the placing of creative and other light industries between existing residential uses and general industry to create a logical transition which reduces amenity, odour and noise impacts.

2.4.6 Soil Contamination

A number of previous uses and existing uses of parts of the study area may have had the potential to contaminate areas of the site such as the North Creek Dip Site (South of Sovereign Gardens). These uses and areas will need to be clearly identified and considered prior to any rezoning of the land.

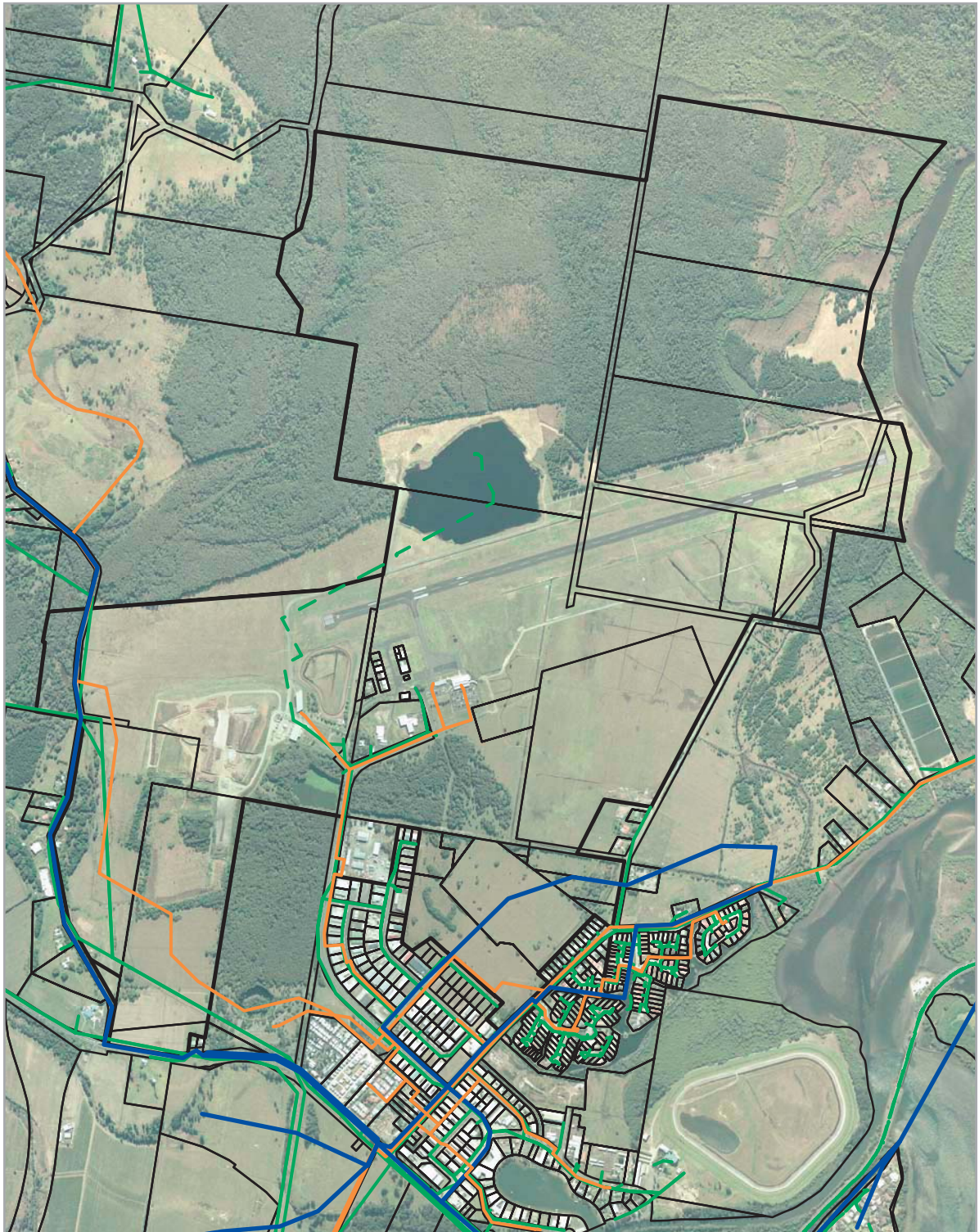
2.4.7 Infrastructure Capacity

Water supply infrastructure is located in the vicinity of the industrial estate, with a future pipeline proposed between north and west Ballina. Adequate water infrastructure is therefore available to the study area.





The Ballina Sewage Treatment Plant (STP) is reaching capacity with augmentation not proposed to take place until 2009/10. Given this, there is limited capacity for connection of new development in the study area to the Ballina STP before 2009. However, it is possible for sewage loads from any new development to be diverted to the Lennox Head STP (subject to detailed investigation).

Reticulated water supply, sewage and electricity are shown in **Illustration 2.7**.

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LEGEND

-  Overhead power lines
-  Underground power lines
-  Water mains
-  Sewer mains



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2.4.8 Summary of Key Issues

Based on all of the above, the key issues that have been identified in relation to the study area are:

- Maintenance of airport expansion options, particularly in relation to widening of the existing runway and the future possibility of a second 'cross' runway;
- Maintenance of the building height restrictions associated with the airport flight paths;
- Providing land for future airport and general aviation use;
- Potential for land use conflicts associated with future use of the land adjacent to Sovereign Gardens and the existing residential uses along North Creek Road;
- Maintaining the ability of the existing waste management facility to operate and expand in the future;
- Flooding, including maintenance of existing floodways and the filling of the land;
- Provision of appropriate drainage networks;
- Consideration of the provision of a bulky goods precinct in accordance with Council's strategic planning;
- Consideration of the provision of regional sporting facilities;
- Maintenance of ecological values associated with significant vegetation and existing fauna habitats;
- Consideration of appropriate future road networks, in line with council's strategic road planning;
- Future for the existing motorcycle facility located adjacent to the airport and other leasehold arrangements;
- Future of existing sand extraction operation;
- Consideration of appropriate future industrial uses, including traditional and creative industries; and
- Need to establish appropriate future identity / character / branding for the estate.

2.5 Opportunities and Constraints

Based on an understanding of these key issues, the opportunities and constraints applicable to the study area have been mapped in *Illustration 2.8*.

As shown, much of the study area is constrained, with protection of the swamp sclerophyll woodland and the building height restrictions associated with the airport providing greatest constraints to future development within the area.

The Civil Aviation Safety Authority requires stringent height restrictions within and around the Ballina Byron Gateway Airport locality. This "no building" area provides an absolute constraint with no development allowed in this area. The next level of constraint provides for an RL 2m AHD height restriction. These constraints are exacerbated by the need to preserve the possible future second 'cross' runway. These issues will need to be taken into consideration when preparing the master plan.

The design flood level in the area is approximately RL 1.8m AHD. To be 'useable', the land should be filled to provide a 300-500mm 'freeboard' above this level. This requirement will restrict the type of industrial development that will be allowed on the areas that are affected by the height restrictions of the airport.

The presence of Sovereign Gardens and other residential uses fronting North Creek Road also present a constraint to the future development of the site. A range of industrial uses would not be directly compatible with these existing uses due to the potential for land use conflicts, mainly associated with noise and/ or odours etc.

A key constraint for the study area is the need for future expansion of the existing waste facility in the study area. This expansion has the potential to impact on the amenity of the study area and careful

consideration will need to be given to planning around the facility, especially in terms of buffer areas and future management of the site.

Conversely, there are a number of opportunities associated with the study area (see *Illustration 2.8*). The site fronts the Pacific Highway. When considered in the context of the approved Ballina Bypass, the proposed West Ballina Arterial and the suggested upgrade of North Creek Road, the study area has excellent access to local and regional population centres.

The land is capable of being serviced and is adjacent to an existing industrial base. The filling of part of the area is being modelled and it is presently considered that there would be no significant flooding impacts associated with this filling. However, this is yet to be confirmed.

External opportunities include the evolving nature of industry and employment. Creative industries, for example, are exhibiting high growth rates in Australia generally and Ballina is well placed, both geographically and in terms of the local and regional community, to take advantage of these industry types.

Although the site has a number of ecological constraints, some of the vegetation and areas on the site offer opportunities in biobanking and conservation.

Ballina's continuing evolution as a coastal city, with a number of regional functions, also provides opportunities, particularly for the consideration of bulky goods.

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Design Rationale

3.1 Key Items for Consideration in the Master Plan

A number of the studies that have been undertaken have identified a wide range of development options for the study area (see Appendix A). These include:

- expansion of the aviation industry;
- additional industrial land promoting the benefits of home industry;
- creative industries including live/work environments;
- business / industry park;
- recreational facilities;
- environmental protection areas;
- bio-banking;
- environmental education;
- potential lease arrangements;
- bulky goods; and
- further general and light industrial development.

3.2 Design Objectives

The following is a list of design objectives that were developed in consultation with Ballina Shire Council. These design objectives were also formulated having regard to the Issues Paper and preliminary community consultation with various interest groups. The design objectives were used to inform the preparation of the master plan.

Address the Expansion needs for the Airport

- locate additional area for the expansion of general aviation and ancillary uses for the airport (existing motor cross track to be investigated for this purpose);
- investigate provision for cross runway; and
- investigate an additional, more direct and appropriate access route to the airport.

Address the expansion needs of the Waste Facility

- identify adequate land for the expansion of the existing waste facility (include appropriate buffer zones to other uses); and
- minimise potential conflict between the waste facility and adjacent land uses.

Provide Space for a Regional Sports Facility

- identify of suitable and adequate land for a Regional Sporting Facility;
- discuss what would constitute the Regional Sporting Facility.

Provide Land for General and Light Industrial Development

- determine the most appropriate area for general and light industry;
- ensure that potential conflicts regarding existing and future adjoining land uses are addressed; and
- Include adequate buffers and / or uses to ensure that potential conflicts are mitigated against.

Provision of Land for Large Format Retail (Bulky Goods)

- consider the implications of Far North Coast Strategy; and
- consider the needs for industrial versus retail land and appropriate zoning for bulky goods.

Investigate Feasibility of Creative Industries Including Live / Work Environments

- determine the need for land for these kinds of uses and also the feasibility of having live / work environments that exist within them; and
- ensure that potential conflict between residential and industrial uses is adequately addressed.

Identification of a Suitable Road and Pedestrian Network

- identify roads and cycleways that ensure excellent connectivity within the precinct;
- minimise impact on the Pacific Highway;
- minimise impact on the airport; and
- ensure better connectivity of the study area to other key areas within Ballina.

Planning for Drainage and Flooding Impacts

- ensure that impacts of any future development of the study area are fully considered in the Master Plan.

Environmental Protection

- ensure that all areas that are identified as having environmental value are protected.

Bio-Banking

- investigate Feasibility and appropriate location.

Master Plan

4.1 INTRODUCTION

The masterplan for the Southern Cross Precinct has been developed as an integrated and coordinated solution for this complex multiuse site. It provides the basis for future planning direction over the immediate to long term enabling progressive implementation of development and redevelopment as demand arises and as some uses phase out or are replaced.

The masterplan aims to address the needs of Ballina with a range of enhanced or new facilities and uses that are compatible with the various constraints imposed by the site and by the different uses that either exist or are proposed for implementation. Consideration of these uses has been informed by an extensive community consultation process involving Council representatives, stakeholders and interest groups and the local community generally (see summaries in Appendices A-D). It has also been informed by a detailed review and assessment of a number of previous studies, reports and strategic plans.

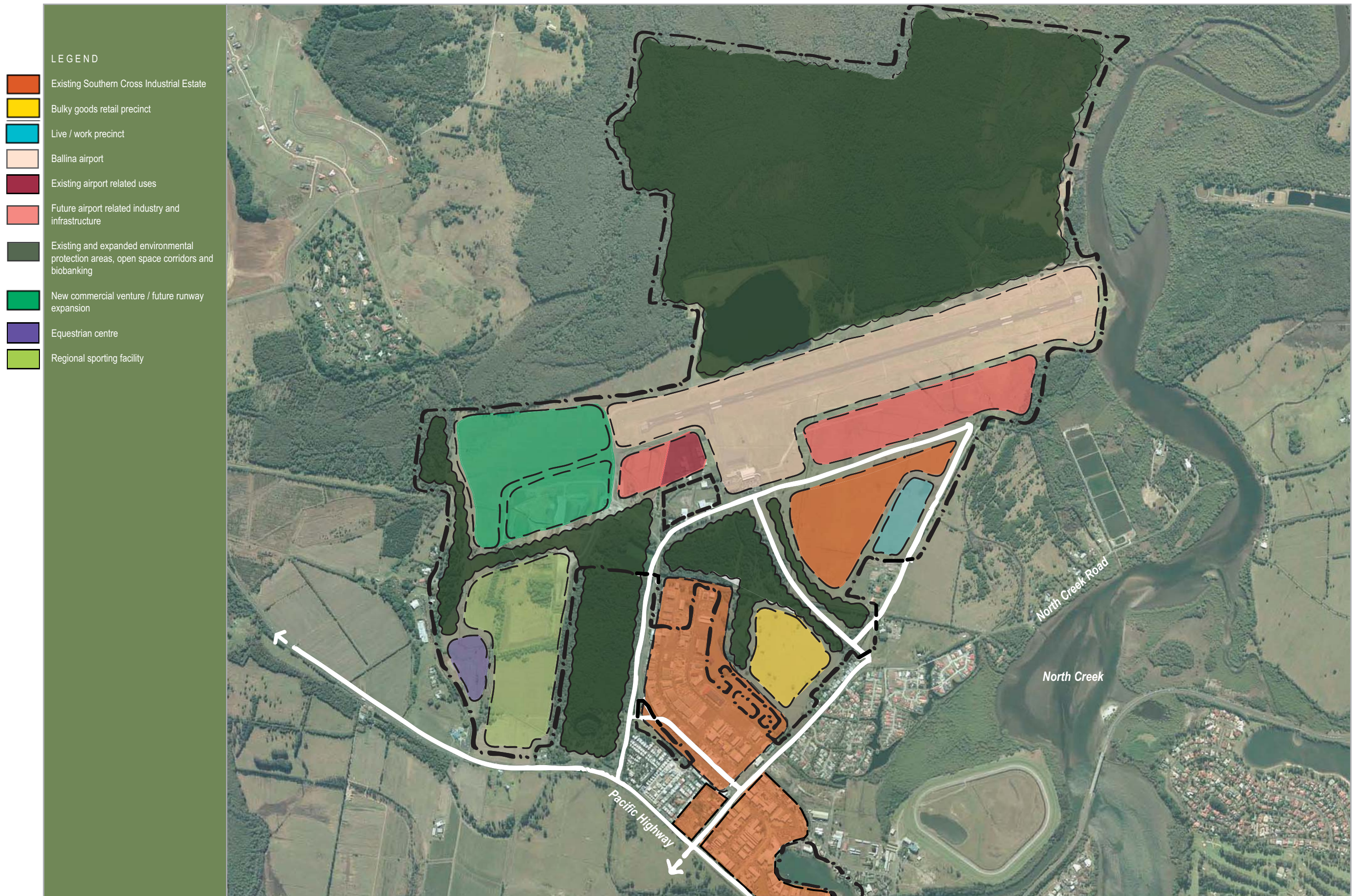
A broad layout of the masterplan is provided on Illustration 4.1 while a more detailed plan identifying possible road layouts and particular features is provided on Illustration 4.2. A detailed description of the masterplan components is set out below.

4.2 NEW NAME

Southern Cross Precinct has been proposed as the new branding name for the entire multiuse site. The name has evolved from the existing title for the industrial area which has an established identity within the Ballina community.

It is recommended that the area within the *Southern Cross Precinct* incorporating the existing and future industrial areas, bulky goods and live / work precincts be renamed as the *Southern Cross Business Park*. The new name aims to capture all of the business sectors within the precinct under one collective title, raising their profile and identity as a whole for the mutual benefit of its various uses. The new name also aims to create a bold, marketable image that can be used to sell the precinct as a key business destination within the region.

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- 1 Existing Southern Cross Industrial Estate
- 2 Bulky goods retail precinct
- 3 Future industrial area with conventional 50 x 25 m lots
- 4 New airport link road
- 5 Realigned road to facilitate the design of the North Creek Road intersection
- 6 Sovereign Gardens aged care community
- 7 Existing residential
- 8 Live / work precinct
- 9 Ballina airport terminal
- 10 Future expansion of airport terminal and related facilities
- 11 Future airport related industry and infrastructure subject to airport specific materplanning
- 12 Existing airport related uses
- 13 Existing water body to be filled in and site rehabilitated for environmental protection
- 14 Existing and expanded environmental protection areas and open space corridors
- 15 Existing council owned land parcels for future determination
- 16 Existing water filled borrow pit to incorporate bird exclusion measures
- 17 Area to be rehabilitated under a biobanking scheme
- 18 New commercial venture / future runway expansion
- 19 Existing and expanded bicycle track network
- 20 Future western arterial road
- 21 Existing and expanded drainage network
- 22 Waste management facility site boundary
- 23 Equestrian centre
- 24 Regional sporting facility
- 25 Short-medium term waste management operations
Long term expansion of sporting facilities
- 26 Possible long term expansion of sporting facilities or commercial venture
- 27 New airport access connection to Pacific Highway
- 28 Privately owned land not subject to masterplan considerations

4.3 KEY MASTERPLAN FEATURES

4.3.1 Road Network

The precinct masterplan proposes an integrated road network that builds on and enhances the existing road infrastructure to service the new precincts and to improve vehicular permeability to existing uses. An important feature of the proposed road system will be the location of distributor roads around precincts rather than through them. This will help avoid through traffic from conflicting with local precinct traffic and will facilitate site legibility by establishing clear points of entry into particular precincts.

Another important design feature will be the extensive planting of vegetation along roads to screen unwanted views and to create attractive tree lined avenues. This initiative will greatly enhance the amenity of the precinct and provide a relatively simple but effective means of enhancing its visual image.

Southern Cross Drive and North Creek Road will remain the primary vehicular access routes within the precinct. These roads will be subject to some modification to their alignment, road priority and intersection designs.

It is recommended that Southern Cross Drive be accessed from the Pacific Highway with a new connecting section of road along the western side of the manufactured home park. The purpose of this new connection will be to enhance the accessibility of the airport from the south and to create a more attractive route for airport users that avoids the local traffic and visual clutter associated with the industrial estate. The new road connection will be designed to give priority to traffic along the western section of Southern Cross Drive. The road here will be designed with minimal carriageway width and a carefully located alignment to limit impact on existing vegetation and adjoining land uses. The entire new western section of the road will also incorporate substantial new planting to screen views of the industrial area and to create a highly vegetated corridor to compliment the visual quality of Bicentennial Gardens to the west.

The remaining section of Southern Cross Drive within the industrial area will primarily cater to local traffic. Junctions at either end of this road provide an opportunity to create a bold visual statement to signify the entrance into the estate.

North Creek Road could become a more significant vehicular route over the longer term, particularly if either end of the road is extended with the construction of the western arterial to the south and the possible Lennox Head link road to the north. If this occurs this will turn North Creek Road into a busy new through route that will change the dynamics of the present road system and will increase the visual exposure of much of the precinct. It should be noted that an alternate link to Lennox Head has not been decided upon at this stage and is subject to further detailed investigation and consideration by Council and the RTA.

A new airport connection from North Creek Road is proposed in anticipation of this increased level of road use and to provide a more convenient airport link for communities to the north. The new connection follows a similar proposal previously considered by council although it is recommended that the new alignment be located further east to avoid an existing area of remnant vegetation. The northern section of the new link road will align with the airport terminal to create a focal point and a sense of arrival for airport users. The road will also provide access into the adjoining bulky goods precinct and the future industrial area.

The new airport connection will incorporate a wide road verge that will support substantial areas of vegetation to screen the adjoining industrial precincts and to create an attractive corridor leading to the airport.

The existing Corks Lane junction with North Creek Road is proposed to be relocated further north to simplify the design of the new airport link road intersection with North Creek Road. Corks Lane will provide access to the new live / work precinct, future industrial area and the area designated for airport related industry further north. The northern end of the road will join onto a new eastern extension of Southern Cross Drive that will extend from the airport terminal and provide additional access to the area designated for airport related industry.

4.3.2 Southern Cross Industrial Area

It is proposed that the extent of the industrial area will be confined to the existing site footprint with a small expansion to the east / northeast. A new street is proposed along this edge to form a defined boundary to the estate and to distinguish it from a proposed new bulky goods precinct that could be established on the neighbouring site. The expansion of the industrial area will generate a small addition of conventional lots (minimum 25 x 50 metre size) which will cater to Ballina's short term demand for industrial land.

The existing industrial area will continue to function in its present form. The proposed road connection between Southern Cross Drive and the Pacific Highway will, however, divert much of the existing airport traffic from passing through the area. As a consequence, the industrial area will become more of a destination and its roads will primarily cater to locally generated traffic. The new road connection will increase the permeability of the industrial area and provide it with an additional vehicular access point to the south.

It is recommended that measures be undertaken to enhance the amenity and identity of the industrial estate. These include improvements to the vehicular entries off North Creek Road and Southern Cross Drive which could be better defined and highlighted with entry markers such as bold signage and tree planting. The existing streets should also be subject to supplementary or replacement street tree planting incorporating large robust species that will provide appropriate scale and amenity.

4.3.3 Bulky Goods Area

A key feature of the masterplan is the provision of a new precinct for bulky goods retailing. It is proposed that the precinct will be established on the site adjacent to the Southern Cross Industrial Estate where it has the potential to become a regional bulky goods retail hub. The site optimises close and convenient access to major roads, in particular, North Creek Road which provides direct connection to nearby Pacific Highway. This is a highly desirable attribute given the constraints of locating a commercial precinct with highway frontage. The close proximity and high visual exposure of the site to North Creek Road would also benefit from possible future road upgrades and the associated increased traffic movement that could result along this road. Potential road improvements include the construction of the western arterial road that will extend to the south of North Creek Road and a possible new creek crossing and Lennox Head link road to the north which is yet to be determined. These attributes are considered consistent with recent State Government Policy statements which relate specifically to the location of uses such as bulky goods.

The precinct will form a seamless extension to the existing adjoining industrial area although it will have its own discrete customer entry and will therefore have a distinctive sense of address and identity. The opportunity exists to fragment part of the precinct for conventional industrial uses, however, if the land for bulky goods is not taken up.

Built form and vegetation will define the precinct boundaries and provide buffers to adjoining areas such as the small residential area fronting North Creek Road to the southeast. A vegetated drainage swale along the western edge of the site will incorporate existing Wallum Froglet habitat and provide passive recreational opportunities for customers and staff within the area. This area may also incorporate a bike

path that will link into the proposed path network to the north. Thick planting will follow the northern edge of the site to screen the site to views from the adjoining new airport link road.

4.3.4 Future Industrial Area

The provision of a new and separate industrial area to the north of the precinct optimises the value of the broad flat land area adjacent to the airport. The new precinct will occupy approximately 19.5 ha and cater to the medium – long term industrial land needs of Ballina. The site would be made available for industrial purposes once the existing Southern Cross Estate is fully developed.

The precinct would consist of a conventional street layout similar to the existing estate and provide for lots with a minimum size of 1250m².

It is proposed that the precinct will be accessed by a minimum of three vehicular entry points that would enable a through connection between the new airport link road and Corks Lane.

A corridor of vegetation will form a buffer to an existing residential area and a proposed new live work precinct along the eastern boundary. Given the likely delay before the industrial area becomes developed, it would be desirable to establish this vegetation buffer as a priority for optimal benefit to the neighbouring areas.

Thick planting is recommended along the south-western edge of the site to screen views into the precinct from the adjoining new airport link road. Streets within the new industrial area will also include planting of large, robust street trees that will provide appropriate scale, amenity and longevity to the area.

Site runoff from the new industrial area will discharge into an open drain located within the buffer along the south-eastern boundary of the site.

4.3.5 Live / Work Precinct

A new precinct of smaller 'live / work' (light) industrial lots is proposed to be established between Corks Lane and the future industrial area. This new precinct is intended to provide opportunities for an alternative employment environment for smaller commercial enterprises that would benefit from on-site living. This type of industrial area has been popular in other coastal communities where enterprises such as those associated with creative industries in particular have been attracted to the flexible, less conventional industrial setting.

The new live / work precinct will endeavour to create a sense of community with clearly defined boundaries that separate the site from surrounding areas. The precinct will have a discrete vehicle entry point off Corks Lane to enhance its identity. The internal street system will surround a central open space area that will provide opportunity for community activities.

The precinct has been located strategically to provide a convenient transition between two potentially conflicting uses bordering the site: the existing Sovereign Gardens aged care community to the southeast and the future industrial area to the northwest. The precinct also continues the existing low level of development fronting Corks Lane to the south.

It is proposed that drainage from the site will be conveyed along an open drain that will run southwest along the future industrial area boundary and join into the drainage system further south prior to discharging into North Creek to the east. The drainage corridor will be mass planted to create a visual

buffer between adjoining uses and provide opportunity for a bike path to connect the live / work area with the local bike path network to the south.

4.3.6 Airport Related Industry and Infrastructure

Two precincts either side of the existing airport terminal have been designated for airport related industry and / or infrastructure. The aim of these precincts is to attract industry that have synergies with the airport operations and would benefit from close proximity to the airport taxiways. The development of the precincts in this way would also enhance the critical mass of facilities and services at the airport to the mutual benefit of the airport and industry. Vehicular access to the western precinct would be provided by the existing airport access road, while the eastern precinct would require the extension of this access road beyond the airport terminal. It should be noted that any future development of this area will need to be carried out to ensure that the provision and preferred layout of necessary future airport infrastructure, such as taxiways, drainage and other services is not impeded.

4.3.7 Airport

The precinct masterplan recognises the particular requirements and limitations imposed by the airport operations including building height restrictions within designated distances of the runway. These restrictions have informed the determination of uses within precincts and have established the boundaries for precincts that border the airport.

The masterplan anticipates that the existing airport will continue to operate in its current mode without the provision of a new cross runway. However, Council has yet to decide on whether or not a cross runway will be provided for as part of the future plans for the airport area. It should be noted that consideration of a cross runway has been based on a facility that caters for light aircraft associated with general aviation as opposed to regular commercial passenger services.

The recommendation in the masterplan not to include provision for a cross runway has been based on a range of information including the findings of a feasibility assessment undertaken by Rehbein AOS Airport Consulting in August 2007 which has yet to be considered by Council. The report considered the preferred runway length of 780 metres long with a 16/34 (160° Magnetic) cross runway alignment and determined that the design would be significantly constrained by existing vegetation to the north of the site which cannot be removed. Retention of the vegetation would result in an unacceptably shorter runway length of 450 metres. An option to locate the cross runway further to the south/southeast would require further consideration of impacts on existing vegetation in that area and the noise generated by the runway on residential areas to the south of the airport. As these impacts are likely to be detrimental, however, the masterplan has been developed on the basis that the cross runway will not proceed.

There may also be a need in the future to extend the current runway to the west. Accordingly any future use of this land will need to be short term focused with no significant infrastructure required that could impede or limit the potential expansion of the airport runway. A possible new commercial venture within this area as described elsewhere in the report is recommended only on the basis that it may revert to airport use for a possible runway extension should this become necessary in the future.

The masterplan has set aside an area immediately east of the existing terminal to accommodate future expansion of airport facilities including car parking and building extensions. The new airport connection from North Creek Road may also present an opportunity to reconfigure the access road leading into the terminal potentially by opening up views of the building and generally creating a more attractive sense of arrival for visitors.

It should be noted that the precinct masterplan recommendations were based on a suite of Council reports that provided detailed background information and recommendations regarding the future operations and facilities at the airport. Of particular significance in this regard was the Ballina Airport Master Plan Review, Final Report, Ballina Shire Council, 3 February 2004 by Connell Wagner. Changes to the recommendations in these reports as a result of any further review process will inevitably require a review of the precinct masterplan recommendations to ensure consistency.

4.3.8 Waste Management Facility

The masterplan recognises the existing waste management facility as a substantial and established operation that should continue to function within its defined land parcel. This will involve the expansion of operations over existing undeveloped land to the south and west of the present site enabling the life of the facility to continue over the medium term. The expansion of the facility into these areas optimises the remoteness and compatibility of the area to surrounding uses and the visual buffer formed by existing vegetation around the facility.

Opportunities for a regional sporting facility to the south of the site, as described elsewhere in this report, have been identified with a view to possibly expanding sporting facilities across the waste management site once it ceases operations. While the design and extent of the sports facility will require detailed investigation, it will be essential that the use of the site for waste management purposes be undertaken in an appropriate manner that will facilitate and compliment longer term site redevelopment for sport.

The long term reuse of the northern areas of the waste facility site may also provide further expansion opportunities for the sporting facilities. The northern extent of this area may, however, be limited by the airport restriction zone. Alternatively, the whole site could be added to the adjoining plantation area to create a larger and more viable operation.

4.3.9 Regional Sporting Facility

This new stand alone facility has been proposed to optimise a strategically important though remote site that has little potential to generate synergies with other parts of the precinct. Given the high visibility of the site from the Pacific Highway, and its prominent northern gateway location, the provision of a new sporting facility here offers the potential to create an iconic, quality development that would enhance the visual image of Ballina and its profile as a sporting destination in the region. Such a development would also provide the town with a much needed centralised sporting venue coupled with high quality facilities. The site also offers excellent access to the regional road system which will be further enhanced following completion of the Ballina bypass and the possible construction of the western arterial and new Lennox Head link road.

The scope of facilities to be incorporated onto the site would be subject to a detailed study to determine the particular requirements of the local community. A review of a similar scaled venue in Coffs Harbour, however, suggests that the existing available land within the Ballina site, totalling approximately 12 ha, would be sufficient to accommodate a regional sporting venue, and associated car parking and infrastructure. Such a facility would cater to large scale events for local, regional and national sporting fixtures. The site has been historically referred to as the 'Common' and any future development of the site into a regional sporting facility and associated naming of that facility should give consideration to this historic name.

It is possible that the adjoining waste management facility to the north may also offer considerable scope for the long term expansion of the sporting venue once the waste facility reached site capacity and must relocate. Advanced consideration of waste management practices across this site for the long term reuse

for sporting activities would enable a successful transition of uses. This would ultimately provide more than double the available area of land provided on the site for sport and provide a highly beneficial land use that would otherwise have limited recycling potential.

4.3.10 Environmental Protection Areas

The study area contains a wide range and distribution of natural vegetation and wildlife habitat. While much of this is already safeguarded within environmental protection areas, other smaller fragments of degraded and unprotected habitat exist which are highly susceptible to further impact from site development. Of particular concern are known sites of the wallum froglet that occur within drainage lines and depressions in areas zoned for future industrial development.

The masterplan recognises the critical value of these fragments and proposes to incorporate them into a more sustainable and continuous open space network that forms linkages between the larger environmental protection areas. Retention of isolated vegetation remnants has also been an important factor in determining the masterplan layout. New areas to be identified for environment protection will include proposed drainage lines and detention basins, and new vegetated corridors that are proposed to buffer and delineate different land uses.

All other areas within the precinct already identified for environmental protection are to be retained under this zoning. These include the large area adjacent to the Ballina Nature Reserve north of the airport, an area requiring rehabilitation under a proposed biobanking scheme at the south-eastern corner of the Reserve, and two parcels of remnant vegetation straddling Southern Cross Drive north of Bicentennial Park and the existing industrial estate.

It is recommended that a plan of management be prepared for all areas identified for environment protection throughout the precinct. This will enable a detailed assessment of all areas to be carried out, particularly those not been previously examined and will ensure that a consistent and holistic set of management guidelines is established.

It is also necessary that a more specific plan of management be prepared to focus on issues associated with the wallum froglet. This will enable a detailed assessment of the existing habitat to be undertaken, and for particular ecological requirements and targeted management strategies necessary for long term habitat rehabilitation to be identified.

It is recognised that oyster leases within North Creek are identified as Priority Aquaculture Areas in the NSW Oyster Industry Sustainable Aquaculture Strategy developed under SEPP 62. Accordingly, it will be necessary that any future development within the masterplan area give specific consideration to potential impacts on existing oyster leases. The requirements in this regard are set out through planning directions and water quality guidelines provided by the NSW Department of Primary Industries. Further investigation to satisfy these requirements and to determine the extent of possible protection measures including the establishment of buffers between developed land and the nearby North Creek oyster leases will need to be undertaken as part of any future development application.

4.3.12 New Commercial Venture

A new commercially operated venture that is compatible with aviation activity is proposed to replace the existing grassed area at the western end of the airport runway. This idea aims to capitalise on the productive value and potential of the broad flat landscape which currently requires constant maintenance to discourage birdlife and to minimise the resultant hazard to airport operations. This area has a number of limitations due to flooding and height restrictions. It will also be necessary that the approval of any

commercial venture within this area include a proviso that the land may be reverted to airport use for a possible runway extension should this become necessary in the future. Accordingly, any future development of the site will need to be restricted to enterprises that do not require any substantial infrastructure and can operate within the height limitations.

Given the close proximity of the Thursday Plantation on the adjoining property, one option may involve the establishment of a tea tree plantation on the site and to incorporate harvesting and processing as part of the Thursday Plantation operation. Further investigation will need to be undertaken to identify the feasibility of establishing such a plantation and to ensure that it does not compromise the core function of the airport and any future potential expansion of the runway.

4.3.13 Biobanking Scheme

An area of degraded wetland to the north of the eastern end of the airport runway is proposed to become rehabilitated as part of a biobanking scheme. The aim is to establish a system where industry will provide funds for the required rehabilitation work through the purchase of a complimentary number of carbon credits. Future discussion with regard to the possible implementation of a biobanking scheme associated with aquatic habitats should involve the participation of the NSW Department of Primary Industries (Fisheries Management Division) who are the key State agency responsible for aquatic habitat protection and rehabilitation.

4.3.14 Motorbike Track

There are a number of conflicts that exist between the operations of the motorbike track and the adjoining airport. As these conflicts are likely to increase over the longer term, particularly as motorcross racing becomes a more popular activity on the site, it is recommended that an alternative location for the track be found and that the site be made available for aviation related purposes. This would generate a more appropriate and compatible use for the site which, in addition to the recommended development of land for the same purpose to the east of the airport terminal, will help create a stronger aviation focus for the airport generally. The timing of the motorbike track relocation and redevelopment of the site for aviation related purposes may be dependant on the development of the site to the east of the airport.

4.3.15 Airport Quarry Pit

Opportunities to enhance the value of this artificial water body for possible recreational, environmental or functional purposes are severely constrained by the close proximity of the airport runway. It is also possible that some further extraction will be undertaken from this pit.

It is also undesirable to fill the pit due to prohibitive cost and the difficulty of sourcing appropriate fill material. Accordingly, it is recommended that the pit be retained in its present form and that it be fenced and netted to ensure that it is not attractive to birds which are hazardous to airport operations.

4.3.16 Flooding and Drainage

Ballina Shire Council prepared a Floodplain Management Study for the Ballina floodplain in 1996. Parts of the precinct are affected by a 1% AEP Flood Event. Council is currently conducting additional modelling for future flood scenarios. Land to the north east of the industrial estate and the waste facility will be included as filled land in this modelling. However, Council will require any further proposed development,

which will require filling, to be run through the flood modelling process to ensure no adverse impact on flood behaviour.

The masterplan proposes a drainage system that incorporates existing and newly constructed drainage infrastructure to facilitate stormwater management and to provide water sensitive urban design opportunities across the site. It is intended that urban runoff collected through conventional stormwater systems will be directed into detention basins and open drainage lines that will continue onto the existing drainage systems and which feeds into North Creek to the east.

A floodway required to mitigate flood impact around the waste management facility is planned along the western periphery of the site. The 30 metre wide floodway will convey flows in a northerly direction toward the natural overland flow path adjacent to the airport runway where flows continue in an easterly direction towards North Creek. The floodway will protect the waste management facility while in operation over the short to medium term and the sporting fields and facilities that are proposed for the site over the longer term when the site reaches capacity for waste disposal.

Climate change is an issue that has the potential to impact on future development within the study area. Of particular concern is the potential impact of sea level rises and the effect that this may have on flood management. Accordingly, it is recommended that detailed consideration of climate change on sea level rise be undertaken through flood modelling that will be required to be undertaken as part of the future development of the site.

4.3.17 Southern Cross Drive Borrow Pit

Due to the poor quality of water contained within the former RTA borrow pit adjacent to Southern Cross Drive at the airport entrance, it is recommended that the site be filled in and the area rehabilitated with native vegetation. The site will subsequently become part of the adjoining environmental protection zone. The restoration work may present an opportunity to create a shallow wetland area and the establishment of habitat for the wallum froglet. This may reduce the volume of material required to fill the pit. The appropriateness of the proposal should, however, be based on the outcomes of a plan of management that is recommended for preparation on the frog habitat within the precinct.

4.3.18 Equestrian Area

It is recommended that an existing equestrian centre be permitted to continue operating on its leasehold adjacent to Gallans Road. The centre is an appropriate use of the site and compliments the uses on the neighbouring properties particularly if the nearby waste management facility is replaced by a sporting venue over the longer term.

4.3.19 Pedestrian and Bicycle Network

In order to enhance the accessibility of the area, a network of designated bike and pedestrian paths is proposed throughout the precinct. These will optimise the available drainage corridors, buffer zones and environmental protection areas to create a complete network that will provide links to each of the park precincts and integrate with the existing surrounding path system. The paths will aim to provide an alternative transport option for commuters within the park and provide an enhanced path network for recreational cyclists generally.

4.4 COST ESTIMATE

A broad estimate of costs has been determined for the required construction work necessary to develop the precinct masterplan as described above. Details of the costs have been set out in **Appendix G**

4.5 STAGED IMPLEMENTATION

The masterplan will need to be developed progressively in response to demand and as capital funding becomes available from council. A likely staged implementation process for the precinct may be as follows:

1. Southern Cross Industrial Area expansion;
2. Bulky goods retail precinct;
3. Live / work precinct;
4. Future industrial area and airport link road; and
5. Airport related industry and infrastructure.

The implementation of other key features within the masterplan including the regional sports facility, new commercial venture and relocation of the motorbike track is not demand dependant and may proceed at any time in accordance with Council funding and priorities. The redevelopment of the waste management facility site will also be entirely dependant on the lifecycle of the facility on the site.

Consultation with Council Staff

In addition to a review of background reports and studies provided by council, a workshop was undertaken in conjunction with relevant Council staff to identify and discuss project issues. The key issues discussed at the workshop were:

General

- The purpose of the master plan is to provide future direction for land use and to inform the shire-wide LEP review process.
- The master plan should also provide a new 'brand' and image for the locality - not just an industrial estate but a place to do business.
- There is potential for land use conflicts associated with future industrial use or expansion of airport capacity adjacent to 'sensitive receivers', such as Sovereign Gardens and other residential uses along North Creek Road.

Airport

- The building height restrictions currently applying to the land near the airport will remain as a critical constraint to development in the area.
- The majority of future landing movements are likely to continue along the existing runway alignment. A potential location has been identified for a new cross runway but this may never be built. The master plan should, however, retain provision for its long term installation, including appropriate buffers and setback distances.
- Opportunity may exist to replace existing grass cover (maintained to a minimum height for bird control) on land west of the runway with a commercial crop, such as tea-tree or the like (provided it does not include tall growth).
- Existing runway is adequate for present airport requirements. Larger planes are not envisaged for some time. The runway may be widened to 45m to cater to larger aircraft if the need arises in the future.
- Key plan for the airport is to have a separate taxi way to enable improved aircraft movement.
- Land directly adjacent to the taxiway area will remain in Council ownership and is to be leased.
- Aim to attract specialised complimentary industries adjacent to the airport.
- Consultancy has been let to study the expansion of the terminal facility.
- The existing car park is currently being extended to the east.
- Passenger numbers planned to increase to around 800,000 per annum by 2012 / 13. This is 2½ times the existing number and may involve 4 jet services/day plus propeller aircraft.

Borrow Pit

- Existing site may be used as a source for additional fill material for expanded Southern Cross Industrial Area. Additional available supply estimated at 800,000 – 900,000m³ to outer approved boundary.
- Existing quarry approval requires the filling of the pit with inert material. Council is pursuing an application to amend the approval to remove the requirement for this filling and enable creation of a waterbody as final remediation.

- Foreshores would need to be netted to discourage water birds.

Northern Native Vegetation Area

- A bio-banking opportunity may exist in existing degraded areas to the north of the runway. The whole degraded area will need to be rehabilitated, not just a part of it.
- Airport operations will prevent opportunities to create a wildlife/native vegetation corridor between the isolated native vegetation remnants south of the airport with the large tract of vegetation to the north.
- A SEPP 14 boundary to the north of the site has recently been gazetted.

Waste Management Facility

- Northward expansion restricted by runway corridor.
- Westward expansion has occurred with the installation of treatment ponds.
- At least half of the existing land parcel to the south should be preserved for the future expansion of the facility.
- Open to ideas for compatible uses on remaining land with highway frontage. This land will be isolated with no linkage opportunity with the remainder of the site.

Motorbike Track (Willow Park Raceway)

- Site is leased from Council and is used for bike racing on a flat track. Motor cross racing incorporating jumps is proposed by the operators.
- There are concerns that jumps infringe height restrictions associated with the airport, that the site presents a security risk to the airport, and that its poor drainage attracts ibis.
- An alternative use for the site with stronger general aviation compatibility should be explored. Possible options include a car rental service with washing and detailing facilities, and a dedicated air freight facility which is not presently available.

Road Network

- A new airport entrance from North Creek Road has been previously proposed, but is not currently favoured by Council. However, such a link should be considered in master planning for the area.
- A strategic investigation report has been received which recognises the strategic benefit of constructing a new crossing of North Creek and extending North Creek Road as an arterial road linking Lennox and Ballina. Such a new link road could carry around 10,000 vehicles / day. The study will be publicly available once finalised and endorsed by Council.
- A second exit from the airport is desirable for emergency purposes.
- Private land adjacent to the airport is accessed by roads over Council owned land.

Industrial Area

- Council's strategic planning identifies the Southern Cross Industrial Estate to be the most suitable location for bulky goods outside existing suitably zoned land.
- Options for different and mixed industrial uses that are reflective of the zoning are encouraged, including possible live-in type uses and creative industries. The aim is for the estate to provide diversity and flexibility. Retail and commercial options are a low priority aside from bulky goods.
- It is important to get the optimal road layout set out as a priority.
- Any bulky goods precinct should occupy a distinctive site with its own centralised parking facility.
- In areas of conventional industrial use, lot sizes will be typically 1,200m². It may be desirable to consolidate car parking in these areas to avoid their spread and resultant amenity issues.

Flooding

- Updated modelling of future flood scenarios is being undertaken by Council. Modelling is expected to include land to the north east of the industrial estate and land incorporating the waste facility as filled in base modelling.
- Floodways across the site and their ability to adequately drain will be an important issue.

Services

- There is sufficient capacity in the existing systems to cope with expected future services requirements within the study area.
- It would be desirable to cluster and co-locate uses that are compatible with dual reticulation and re-use of treated wastewater.

External Site Considerations

- Operators of the adjoining aquaculture site have indicated intentions to redevelop the site as a tourist attraction with regional facility status.
- Miscellaneous activities are evident within the 1(b) zoned area adjacent to the eastern extent of the airport.
- Important to ensure an appropriate interface between the Sovereign Gardens Seniors Living Facility and the adjoining proposed use within the study area.

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Consultation with Government Agencies

The Department of Environment and Conservation (Coffs Harbour and Grafton), Roads and Traffic Authority Grafton, Department of Primary Industries (Agriculture) - Wollongbar Agricultural Institute, Department of Primary Industries (Fisheries) and (Mineral Resources), Department of Lands, Department of Planning, Department of State and Regional Development, Civil Aviation Safety Authority, and North East Waste Forum were consulted by GeoLINK with respect to general guidelines that these agencies may have in relation to the proposed works.

The comments and requirements of these government agencies have been addressed in Master Plan Documentation

Summary of Consultation

Agency	Comments
Department of Environment and Conservation 18 June 2007	The DEC recommends consideration of the following issues relevant to the Department of Environment and Climate Change's (DECC) interests and statutory responsibilities: <ul style="list-style-type: none"> ▪ the proposal is consistent with the principles of the <i>Protection of the Environment and Operations Act 1997</i>; ▪ the proposed development is consistent with State Environmental Planning Policy No. 14 (SEPP 14) – Coastal Wetlands, SEPP 44 – Koala Habitat Protection and the principles of the <i>Native Vegetation Act 2003</i>; ▪ that portion of the study area, approx. 149 hectares which is mapped as SEPP 14 – Coastal Wetlands – be excluded from any future development proposal due to inherent high conservation value; ▪ the proposal is not likely to cause impacts on areas of native vegetation with special reference to threatened or regionally significant flora and fauna species; ▪ that the mapped SEPP 14 – Coastal Wetlands occurring within the study area and comprising Endangered Ecological Communities be excluded from any future development proposal; ▪ study area is also know to contain habitat for a number of threatened species and it is recommended that these habitat be avoided where possible or, if this is not possible, effort made to mitigate effects of future development on threatened species; ▪ an appropriate level of Aboriginal cultural heritage assessment has been undertaken and the proposal is not likely to impact on areas of cultural significance to the Aboriginal community, however the views of Aboriginal community groups should be sought and fully considered as there are six registered Aboriginal sites occurring within the

Agency	Comments
	<p>study area;</p> <ul style="list-style-type: none"> ▪ potential direct and indirect impacts on DECC estate, particularly Ballina Nature Reserve, have been adequately considered and avoided; ▪ stormwater sourced from the study area must be managed in a sustainable manner to prevent any impacts on rivers, creeks and estuaries; ▪ that the consistency between the Master Plan area and future development areas identified within the Far North Coast Regional Strategy is determined; ▪ note the Commonwealth's <i>Environment Protection and Biodiversity Conservation Act 1999</i>.
<p>Roads and Traffic Authority 6 June 2007</p>	<p>The RTA reiterated the basic principles for management of the road network when developing the Master Plan:</p> <ul style="list-style-type: none"> ▪ efficiency of the classified road system; ▪ safety of the classified road system; ▪ integration of land use and transport planning; ▪ security of the classified road network. <p>In particular, the Master Plan should address:</p> <ul style="list-style-type: none"> ▪ access to the existing Pacific Highway for the Southern Cross industrial estate in the future; ▪ strategies for pedestrian connections to Ballina and future residential areas south of the Pacific Highway (the River Oaks Estate); ▪ the proposed roundabout at the intersection of North Creek Road and the Pacific Highway, whilst appropriate for control of vehicular traffic, can make pedestrian movements across busy roads more difficult; ▪ safe methods of pedestrian movement into Ballina and south across the Pacific Highway should be included in future planning.
<p>Department of Primary Industries – Wollongbar Agricultural Institute 21 May 2007</p>	<p>The site and proposed plan raises no forestry issues for the NSW Department of Primary Industries.</p> <p>Mineral Resources Division of NSW DPI indicates that the Master Plan would not directly affect any significant, identified mineral resource. However, future development could consume considerable quantities of construction materials and it is therefore recommended that future studies related to the subject development should:</p> <ul style="list-style-type: none"> ▪ estimate the construction material requirements for the subject development; ▪ indicate their likely primary sources of material (not just intermediate suppliers); ▪ state whether the proposed construction material uses are appropriate (e.g. use of high quality materials as fill may be inappropriate), and ▪ assess the potential impact on the sustainability of construction material supply in the district that could arise from obtaining significant requirements from existing

<i>Agency</i>	<i>Comments</i>
<p>Department of Primary Industries (Fisheries) 18 May 2007</p>	<p>sources.</p> <p>The Aquatic Habitat Protection Unit (AHPU) of the DPI advises that development of the proposed Master Plan needs to be undertaken cognisant of the need to establish effective buffers to marine vegetation such as mangroves, SEPP 14 Wetlands, the Ballina Nature Reserve and endangered saltmarsh communities:</p> <ul style="list-style-type: none"> ▪ oyster aquaculture needs to be recognised as an industry requiring external site consideration, particularly relevant given the presence of oyster aquaculture being undertaken on North Creek; ▪ North Creek oyster leases are identified as Priority Aquaculture Areas in the NSW Oyster Industry Sustainable Aquaculture Strategy (SEPP 62); ▪ much of the land within the Master Plan area either naturally drains, or drains via cut agricultural drains, to North Creek; ▪ the Master Plan needs to devote appropriate areas of land toward establishment of buffer zones, and measures to improve water quality to ensure that runoff does not impact on the productivity of oyster farming; ▪ with regard to design or selection of appropriate water quality measures, such measure should be employed to avoid fish moving into the facilities where they are vulnerable to fish kills, the primary measure being to set overflow points above 1.1 AHD.
<p>Department of Planning 21 May 2007</p>	<p>The Department of Planning has noted the following additional issues for consideration in finalisation of the plan:</p> <ul style="list-style-type: none"> ▪ examination of the Aboriginal Cultural Landscape Map for the Ballina-Tweed area indicates the study area is affected by a 'Cultural Value Area' identified by the Aboriginal Community in 2005; ▪ conservation and management of indigenous heritage should be included in consultation with the local Aboriginal Land Council; ▪ in addition to the updating of future flood scenario modelling, there should be consideration of any necessary flood evacuation measures and flood free access routes in the area; ▪ consideration of measures or buffers for the protection of SEPP 14 Coastal Wetland Nos. 88, 88a and 88b – the potential impact of the proposed development should be assessed and, where necessary, the appropriate methods of protection for these wetlands should be investigated further as part of the Master Plan; ▪ consideration of the maintenance or improvement to the water quality of North Creek. The intensification of industrial uses close to rivers has the potential to increase river health issues in the catchment. This should be addressed and where necessary amelioration measures included.

<i>Agency</i>	<i>Comments</i>
Civil Aviation Safety Authority 11 May 2007	<p>In relation to the land use adjacent to the Byron/Ballina Gateway Airport, CASA would expect the Ballina Shire Council to:</p> <ul style="list-style-type: none"> ▪ Protect the obstacle limitation surfaces associated with the aerodrome, that is, prevent the infringement of these surfaces (this includes restricting the penetration of any plume with a vertical velocity in excess of 4.3m/s) ▪ Not encourage or allow any development that would cause bird or animal attractions ▪ Restrict any lighting to that allowed by the manual of standards (MOS-Aerodromes), specifically “Lighting in the vicinity of aerodromes” ▪ Not interfere with any established navigation aids ▪ Limit smoke and dust activities (non-regulatory requirement)
North East Waste Forum 15 May 2007	<p>The NEWF’s major interest is the constraint presented by the future needs of the Ballina Waste Management Facility and they support the assertion that one of the key issues is:</p> <ul style="list-style-type: none"> ▪ the need to maintain the ability of the existing waste management facility to operate and expand in the future, and ▪ as the only facility of its kind in the Ballina Shire area, continued ease of access by domestic and commercial users, waste contractors and school and community groups for education and training purposes is of paramount importance <p>The NEWF notes that the facility is licensed by the NSW EPA/DECC and as such future expansion needs will be in part dictated by licence requirements; and any changes to the area will need to accommodate any needs as per the landfill licence.</p>
Department of Lands	No response
Department of State and Regional Development	No response

Community Response to Exhibition of Issues Paper

Extensive community consultation was initiated by GeoLINK with respect to the Issues Paper. In addition to community attendance at the Stakeholder Forum and Community Workshop, a number of written responses were received from individuals and organisations. These submissions are summarised below:

Summary of Consultation

<i>Name/Organisation</i>	<i>Comments</i>
Richmond Christian College 15 May 2007	<ul style="list-style-type: none"> ▪ Drainage and flooding concerns ▪ Contaminants entering groundwater from waste facility; ▪ Health concerns with the close proximity of the waste facility to school and other users; ▪ Odour concerns; ▪ Concerns in regard to removal of waste facility; and ▪ Support for community sporting facility to replace waste facility in the future.
Desmond Angel 15 May 2007	<ul style="list-style-type: none"> ▪ Support for the continued growth of the industrial estate; ▪ Does not support closing the intersection of Southern Cross Road and Pacific Highway; ▪ Supports a round-a-bout on the intersection of North Creek Road and the Pacific Highway; ▪ Support for attracting and providing for airport related industry;
Residents adjoining Land to be Rezoned 15 May 2007	<ul style="list-style-type: none"> ▪ Concerns regarding how the land would be developed and whether there was any chance they would have general industry on their "back door step"? Council suggests there be some kind of buffer or acoustic measures such as mounds / fencing / vegetation implemented to minimise potential impacts.
Howie Hughes, Australian LightWing 3 May 2007	<ul style="list-style-type: none"> ▪ Support for attracting and providing for airport related industry; ▪ Support for relocation of the motor cross track; ▪ Support for planning for future growth in the airport; ▪ Supports relocation of waste facility; ▪ Supports provision of aviation training; ▪ Supports establishment of a cross strip for future needs and safety; ▪ Supports a full length taxi way; and ▪ Supports link over North Creek to Lennox Head.

<i>Name/Organisation</i>	<i>Comments</i>
Unknown (submission handed in on Feedback form) May 2007	<ul style="list-style-type: none"> ▪ Consideration should be given to bicycle path from Gallan's Road to existing path nearby. Would benefit locals as well as tourists who cycle from Ballina centre to Thursday Plantation.
Ballina and District Equestrian Club May 2007	<ul style="list-style-type: none"> ▪ Provided information on club operations and requested status quo in regard to the land leased by the club.
Ballina Environment Society 21 June 2007	<ul style="list-style-type: none"> ▪ Request resolution of the second runway; ▪ Opposition to the existing waste facility and supports its relocation; ▪ Supports retention of vegetation and ecologically significant sites across the study area;

Stakeholder Workshop/Community Forum – Consultation Notes

Ballina/Byron Gateway Airport

- Current Runway and identified proposed cross runway are unsafe and in the wrong location;
- Safety is paramount;
- Needs to be running north - south to best deal with prevailing winds;
- This may require removal of Corks Hill which could be used for fill material;
- Needs to be upgraded to cater for future growth of Ballina as a regional centre;
- Existing runway has serious constraints to provide for this growth;
- Nearby dump has major problems in terms of birds and therefore the potential for bird strike;
- Airport was identified as the number one priority by most of the attendees at the workshop; and
- GeoLINK to discuss airport with Andy Jeavons – he has prepared a report on the airport which has involved consultation with air pilots and air transport companies.

Ballina Waste Management Facility

- Most thought that an alternative site needed to be found for the facility;
- Potential conflict with airport (bird strike);
- Amenity issues - is on the entrance to Ballina and is perceived as visibly obtrusive;
- Is inappropriately located due to flood risk;
- Potential leachate problems; and
- General consensus was that it needed to be relocated away from this site.

Traffic and Access

- Effective and efficient road network was seen as a critical issue;
- Should not be done in isolation to the rest of Ballina – needs to have regard to especially the proposed western arterial bypass;
- Protection of exposure for existing businesses is essential;
- Should recognise existing businesses and residents;
- Pedestrian access is also essential;
- Connection of existing footpath to Gallans Road was needed; and
- Traffic congestion around the exit/entrance to the Estate highway needs to be investigated.

Sport and Recreation

- Thought it was a good idea if there was sufficient space; and
- Located near equestrian centre – most thought this was ideal.

Ecology

- General understanding and agreement that ecology needed to be carefully considered and preserved.

Noise and Conflicts

- Need for buffers between conflicting land uses;
- Support for the concept of graduating development from general – light – creative – live/work – residential;
- creative industries including live/work environments;
- recreational facilities; and
- environmental protection areas.

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Background Reports / Studies

There are a number of background reports, studies and strategies that have been produced by Council which are of particular relevance to the master plan. The key components and outcomes of these documents are summarised below.

Ballina Road Contribution Plan

BSC, Version 2, Oct 2002

- This contribution plan enables Ballina Shire Council to levy Section 94 Developer Contributions for the provision of additional road capacity to service increased traffic loading as a result of urban growth and / or development demands.
- Relevant new road construction works proposed by the Plan include:
 - Western Arterial
Expenditure years: 2004 – 2007 Capital Cost: \$14.3M
 - North Creek Road / Pacific Hwy roundabout
Expenditure year: 2006 Capital Cost: \$374K

Industrial Land in Ballina Shire 2003

BSC Mar 2003

- This report provides baseline data on the supply, use and potential for the provision of further industrial land within Ballina Shire. The report specifically deals with the Southern Cross Industrial Estate.
- Southern Cross Industrial Estate is the largest industrial area in the Shire containing 32ha of developed industrial land, which is 47% by area of the Shire total. There are 186 lots at an average of 1678m² / lot.
- There is sufficient industrial zoned land in the shire to satisfy demand for the next 10-12 years. However, it is anticipated that an additional 15ha of industrial land will need to be found by about 2020, to cater for anticipated need to 2033.
- The study endorses the construction of the West Ballina by-pass and acknowledges the possibility of a new North Creek bridge that may provide a future Skennars Head / Lennox Head link. These proposals will establish North Creek Road as the major entry point to Southern Cross Industrial Estate.
- 7-10% of the Southern Cross Estate industrial catchment needs to be set aside for drainage retention and settlement.
- Need to consider providing buffer land uses between Sovereign Gardens, North Lake Residential Estate, and the adjacent row of houses and any future industrial uses.
- Chapter 4 of the Ballina Combined Development Control Plan plots ANEF contours for Ballina Airport and specifies acceptable land uses within the noise ranges.
- Investigations into frog species will be necessary on existing low lying cleared land to the east of the estate.
- Strategy necessary to mitigate against ad hoc establishment of non-industrial activities within the estate, including the creation of a bulky-goods retailing precinct.

- In response to concern for the infiltration of clubs, a church and a school within the estate, a precinct for non-industrial development should also be established as well as new *1-Local Industry* (under DCP No.1) areas.
- A three stage strategy is recommended involving the development of existing industrial land, rezoning of adjoining land for future industrial use and the investigation of potential uses of remaining Council owned land with regard to other strategies and needs. The strategy incorporates a possible future airport road.

Ballina Retail Strategy

BSC, Aug 2003

- This strategy investigates a number of issues that are impacting on the regional economy of the Shire's business sectors. The strategy also provides a planning and development framework by which to address all of these issues.
- The combination of population and tourism growth and increased real spending will result in continuing growth in retail sales dollars available in Ballina.
- Future development of retail activity should be based on the principle of protecting the position of Ballina town centre and the Kerr Street retailing precinct at the top of the Ballina retail hierarchy. Additional major retailing outlets which are removed from these precincts should be discouraged.
- The establishment of a bulky goods retailing precinct within the Southern Cross Industrial Estate has been considered as a means of mitigating against a trend of increasing non-industrial activities within the estate.

Community Facilities and Open Space Needs Analysis

ERM, Feb 2004

- This study undertakes an analysis of the availability and adequacy of community and open space facilities within the Ballina Shire.
- Regional sporting fields recommended on Council owned land in vicinity of the Ballina / Byron Gateway Airport and Southern Cross Industrial Area.
- Facilities for hockey and athletics should be provided with appropriate facilities and infrastructure (including lighting, car parking and amenities) to enable regional events.
- A site of 13ha would be necessary.

Ballina Airport Master Plan Review Final Report Ballina Shire Council

Connell Wagner, Feb 2004

- This report reviews recent strategic planning documents that relate to the airport offers initiatives which could potentially improve the operations at the airport in terms of scheduled air services, general aviation and land development options.
- This site can be identified on **Illustration 3 Locality Land Use**.
- Ballina Airport needs to diversify its revenue base and reduce its dependence on passenger landing aviation fees. This could be accomplished through greater focus on attracting aviation and aviation support industries, land development and growth of complementary industries.
- Aviation businesses which require movement area access and other aviation support businesses which could create a cluster effect at the airport should be located in designated land at the airport.
- The planning for long term airside and aviation related development from the terminal to west of Corks Hill is supported. This would include:
 - the preserving of airport land for aviation industry development;
 - proposed access road; and
 - long term provision for a cross runway which should be required as the General Aviation fleet goes overtime at Ballina.

- Parcel 1, with immediate movement area access (approx 10ha of actual useable area) would appear to meet the short to medium term requirements for GA and other commercial aviation business activity. (Refer Illustration 3 Locality Land Use).
- Parcel 2 (approx 10ha) could be preserved if the aim is to protect airport land for future aviation industry use over the longer term. Given its limited strategic benefit to the airport, it could be in Council's commercial interest to sell this land in the short to medium term. (Refer Illustration 3 Locality Land Use.)
- Maximising access to the airport's movement areas is an important design objective for the area.
- Consideration needs to be given on the desirability of retaining the future GA area on the west of Corks Hill and/or the alternative access road along the southern side of Parcel 2.
- As Southern Cross industrial estate moves toward full development, remaining unallocated airport land from parcels 2 and 3 could be sequenced for industrial development as part of the estate.
- An immediate short term objective could be to relocate existing commercial activities with a public interface to sites immediately east of the terminal. These and other GA industry activity could, over the medium to long term, be re-accommodated in a quality multi-purpose building, eliminating the possibility of modest demountables being erected on an ad hoc basis.
- The potential demand of vacant airport land could be cost effectively tested through a marketing study.
- BSC should retain strong planning and managing control of vacant land with direct airside access (Parcel 1). The remaining vacant land (Parcels 2 and 3) should be divested by council.

Southern Cross Industrial Estate Structure Plan and Concept Design, Ballina Shire Council

Maunsell, Mar 2004

- This structure plan considers the context set by the existing industrial zoned land and recommends a framework for future industrial development (and other complimentary land uses) on adjacent industrial zoned land and rural land and other nearby rural zoned land.
- A copy of the adopted Structure Plan and Concept Design prepared by Maunsell is attached to this Issues Paper.
- This site can be identified on Illustration 3 Locality Land Use.
- The Environmental Investigation Area identified in the report contained the most valuable vegetation associations.
- The vulnerable Wallum Froglet was identified at a number of locations within the area.
- There is a potential presence for acid sulphate soil across the site.
- Localised street flooding occurs within the industrial areas during storm and peak tide events.
- The site would be flood inundated for all storm events investigated. The 100yr flood level in the industrial area reaches 1.8m AHD (lowest area is 1.09m AHD).
- None of the North Lakes Residential Area dwellings on North Creek Road have direct access to the road, assisting possible future heavy vehicle movement generated by an expanded industrial estate.
- It will be important that the Sovereign Gardens development and future expansion of Southern Cross will be complementary to and consistent with regard to stormwater management.
- The industrial estate generates approximately 3000 vehicles / day.
- Pedestrian connectivity to and through the industrial estate is poor. There are no pedestrian paths along either side of any of the roads within the estate.
- Average lot size in the existing estate is 1,678m² (excl roads), minimum size 1,000m².
- It is recommended that a future airport access corridor be located further northeast than the option considered in the Ballina Shire industrial land audit.
- Filling of land bounded by the highway, airport and North Creek Road would likely increase 100yr flood levels by up to 50mm.

- Opportunities to locate bulky goods retail within the industrial estate can be provided by offering the bulk purchase of lots rather providing large lot sizes which can be triggered by market demand and avoid unrealised use of large lot sizes.
- Preferred layout proposes grass swales, a major new wetland area and extensive filling to overcome stormwater management and drainage issues.
- Existing capacity of Southern Cross Drive could be reached prior to 2018 if existing traffic volumes and estimated airport traffic is taken into account.
- Localised congestion is likely to arise, particularly during peak periods, necessitating possible intersection upgrades.
- GPT's and constructed wetlands are proposed to achieve the required level of stormwater treatment necessary to avoid increasing stormwater pollutants into North Creek.
- Proposed development will cater for a 15 year demand period. Development beyond this period could be achieved by extending the estate to the northeast.

Ballina Shire Council Retail Showrooms and Bulky Goods.

Core Economics, Sept 2004

- This report compliments the current retail strategy as adopted by Ballina Shire Council and provides a bulky goods and retail showroom strategy for the region.
- Suitability of the Southern Cross Industrial Estate for Large Format Retail (LFR) needs to be assessed against:
 - preferred proximity on or close to major roads with good access for large vehicles;
 - preference for LFR to be located in a quasi retail area as distinct from industrial zones where easy access is not as necessary; and
 - need to minimise LFR spread throughout a community.
- Ballina industrial estates generally lack regional exposure and accessibility to attract bulky goods retailing. If incremental expansion is the preference for LFR retail development, a new precinct, well located in relation to the regional road network must be identified with approximately 10 – 18ha for long term demand.
- If spare capacity within an existing estate is to be adopted, the bulky goods precinct will need to generate critical mass with a large amount of floor space developed quickly, anchored by large, popular tenants that are unique to the area.
- Approx 10 – 18ha (at 50% site coverage) would be required between 2004 and 2016 to support 50,000 – 80,000m² additional large format retail (LFR) space.
- The strong population growth and extent of migration will see an extensive number of household formations that will underpin demand for all retail categories particularly large floor space retailers.
- Ballina has the capacity, infrastructure and critical mass to be the preferred location for LFR retailers seeking to serve the region.
- There is no distinct bulky goods or large format retail precinct within Ballina, with the majority of large format type retailers being located within the Southern Cross Industrial Estate, stand alone buildings in the Ballina town centre and newly developed showrooms at West Ballina.
- There are considered to be two existing locations that can potentially accommodate LFR's such as the Southern Cross Industrial Estate and the precinct along the Pacific Highway at West Ballina with the latter having capacity constraints in catering for future potential floor space needs.

Bird Management Plan, Ballina Airport – Final Report

Ecosure, Jun 2005

- This document provides a Wildlife Management Plan that aims to reduce the risk of bird strikes at Ballina airport.
- This site can be identified on Illustration 3 Locality Land Use.

Strategies set out under the Plan include:

- Grass cover adjacent to runway to be maintained at no less than 300mm height.
- Need to minimise water ponding.
- Remove non-essential fencing / poles to reduce perching opportunities.
- Need to use netting over landfill site to discourage birds.
- Create steeper sides and use netting around quarry lake to discourage birds.
- Fill depressions to reduce ponding to reduce bird habitat.
- Create steeper margins at North Creek Estuary to discourage birds.
- Exclude cattle grazing.

Ballina Byron Gateway Airport Passenger Terminal Review

SKM, Feb 2006

- This report provides a review of the passenger terminal layout at Ballina Byron Gateway Airport in order to streamline existing passenger terminal operations.
- Currently no physical constraints to the future expansion of the passenger terminal on either side of the building.
- Current constraint to expansion is financial. Expansion should only occur when there are signs of certainty of existing airlines showing permanence in their operations.
- 168 car parking spaces are currently provided at the airport including 16 for car rental and the remainder for public use.
- Use by long term parkers (over several days) deprives other daily users, especially when the car park is full which often occurs on Wednesdays and weekends.
- The car park could be increased by 20 spaces if a ratio similar to Coffs Harbour and Port Macquarie of 1 space per 1000 passengers is to be provided.
- Long term parking should be designated furthest away from the terminal and a separate entry and egress should be provided for rental cars to ensure designated car parking is used.
- As the car park is the main source of revenue for most airports, the car parking policy should be reviewed to consider the introduction of an appropriate fee structure (Note: Paid parking was introduced in January 2007).
- An aerodrome rescue and fire fighting service will be required by 2007/08.
- A Local Aerodrome Advisory service will have to be provided by 2006/7 and a control tower by service by 2014/15.

Ballina – Byron Gateway Airport Business Plan 2007 – 2015

BSC, Apr 2006

- This business plan has been prepared as a guide to model income and expenditure and provide for the funding of capital works based on the projected future aircraft movements and passenger numbers at the Ballina Byron Gateway Airport.
- Runway operating length and width limits airport operationally to Code 4 aircraft.
- Given volatility of aviation industry and in order not to expose Council financially, capital work should only be undertaken when operations prove it necessary, not in anticipation of need.
- Airport sustainability relies on Council increasing capacities from revenue sources other than from the airlines.
- Car parks are the main source of revenues for airports.
- The report estimates passenger numbers to be between 404,712 passengers and 459,900 passengers for the 2007/2008 financial year. This is expected to grow to between 772,632 and

846,216 in 2014/2015 financial year. It should be noted that these are estimates and are subject to revision.

West Ballina Arterial Road / Industrial Estate Expansion Precinct Planning Discussion Paper
BSC, Apr 2006

- This discussion paper has been prepared to provide a preliminary overview of the key issues associated with the establishment of a planned precinct linked to the implementation of the West Ballina Arterial Road and / or the expansion of the Southern Cross Industrial Estate.
- The identified sites from this paper were reported to council.
- Ballina could establish itself as a major regional sporting precinct with facilities similar to Coffs Harbour. The region is currently only serviced with a facility at Lismore.
- Sporting fields and car parking associated with bulky goods retailing may be land uses that can be designed to be compatible with the flood characteristics of the land.
- Ballina policy requires a 400m buffer between urban development and the STP. Sporting facilities and bulky goods retail may, however, be suitable within this zone.
- The waste management facility may expand southward but would not preclude uses on southern part of the site adjacent to the highway if appropriately buffered.
- Possible future access enhancements created by re-establishment of North Creek Road as a route between Lennox and Ballina will result in a key arterial road through the industrial area.
- The Southern Cross Industrial Estate was identified as the preferred location for large format retail development outside of the existing suitable zoned areas.

Minutes of the Ordinary Meeting of Ballina Shire Council, Held in the Council Chambers, Ballina, Thursday 25 May

- Council resolved to endorse land to the north east of the existing Southern Cross Industrial Estate as the preferred site for investigation into facilitating the establishment of a bulky goods retailing precinct.
- The Clarence Valley Council (CVC) independent review found the assessment by Ballina Shire Council with respect to the establishment of a bulky goods precinct in the shire to be logical and the outcomes based on sound planning principles.
- The precinct master planning process will inform the comprehensive review of the BLEP with respect to bulky goods retailing.
- CVC indicated that the identification of land adjacent to the Southern Cross industrial estate, if fully dedicated to Large Format Retail (LFR), would carry risk if demand assumptions were not realised. This risk could be minimised if demand for general industrial land was such that the LFR land could be used for that purpose as an alternative (should LFR demand not eventuate). 5-8 Ha could be rezoned to meet potential local demand for LFR. An additional 7-10Ha (approx) could be justified if there is sufficient local industrial demand for that additional area if the capturing of regional LFR demand does not eventuate.

Ballina Byron Gateway Airport Future Pavement Management
SKM, Jun 2006

- This document is a ten year maintenance plan for the Ballina Byron Gateway Airport pavements including programming and cost estimates to facilitate council budgeting and planning processes.
- Increased future aircraft operations may warrant an extension of the terminal and the apron if maintaining a separation between flights becomes difficult.

Ballina Shire Council. People, Place, Prosperity: A framework for a more sustainable Ballina Shire 2025

BSC, Sep 2006

- The aim of this framework is to provide the Ballina Shire community with a strategic direction for a more sustainable Shire in 2025 and beyond. It aims to provide:
 - A built environment contributing to health and wellbeing;
 - A diverse and prosperous economy;
 - A healthy natural environment;
 - A diverse balanced use of our land;
 - People attaining health and wellbeing;
 - Resilient and adaptable communities;
 - Responsible and efficient use of resources; and
 - Transport and accountable governance.
- Any actions within that result from the master plan should be consistent with the strategy.
- Provide for a diverse and prosperous economy including a range of business activities that do more than just cater to tourists.
- Retail sector accounts for 85% of the Gross Regional Product.
- Lack of community wealth – 28% of community are on income support.
- Need to increase proportion of population in workforce by building a range of economic opportunities.
- Need to incorporate natural ecosystems into urban design and bio-banking into development.
- Recognise that loss of ecosystem functioning will have an economic impact.
- Need to do more with urban areas incorporating more interesting opportunities for living, working, socialising, and playing without having to travel too far.
- Want responsible and efficient use of resources with government and business leading by example.

Ballina Southern Cross Industrial Estate Expansion, Updated Traffic Operational Assessment

Cardno Eppell Olsen, Oct 2006

- The purpose of this report is to provide a traffic impact assessment identifying any operational constraints associated with the proposed expansion of the Southern Cross Industrial Estate, Ballina.
- The revised analysis assumes that both the western arterial and Pacific Highway bypass connections will be constructed prior to 2015.
- The Ballina Local Environmental Plan 1987 (Amendment No. 95) proposes 12ha of land for industrial and bulky goods retailing. These lands are expected to generate between 1,126 and 1,666 peak hour trips depending on the ultimate development mix.
- The priority control at the Southern Cross Drive / North Creek Road should be reversed to favour north/south movement.
- The duplication of both through lanes on the Pacific Highway in addition to the banning of right turning movements at the Southern Cross Drive intersection will allow the development of approx. 85% of lands described by scenario 3 by 2015.
- A two circulating lane 40m internal diameter roundabout is recommended at the Pacific Hwy / western arterial / North Creek Road intersection. This would provide sufficient capacity so that the lands could be fully developed as per scenarios 1 and 2 and 85% of lands in accordance with scenario 3.
- Further development of remaining lands may be possible subject to further analysis.

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Planning Documents and Associated Issues

Far North Coast Regional Strategy

Department of Planning, January 2007

- The purpose of this strategy is to manage the regions expected high growth in a sustainable manner. It will protect unique environmental assets, cultural values and natural resources of the region while ensuring that future planning maintains the character of the region and provides for economic opportunities.
- Ballina is identified as a developing major regional centre in the employment lands map contained within the strategy.
- The strategy supports the utilisation of existing vacant and commercial industrial land, where appropriate to the proposed use, prior to the release of further lands.
- The development potential of commercial centres is to be explored by councils and identified in local strategies, local environmental plans and development control plans.
- Council's will identify opportunities for bulky goods style retailing in appropriate locations in commercial centres and restrict this form of retailing in employment and industrial zones as set out in the government policy *"Right Place for Business"*.
- Planning for commercial and industrial land uses must be integrated with supply of relevant infrastructure and transport.

The Right Place for Business and Services Planning Policy

Department of Planning 2001

- This policy explains why businesses and services that generate transport demand should be in locations that offer choice of transport and encourage people to make fewer and shorter trips. The objectives of the policy are to:
 - locate trip-generating development which provides important services in places that:
 - help reduce reliance on cars and moderate the demand for car travel;
 - encourage multi-purpose trips;
 - encourage people to travel on public transport, walk or cycle; and
 - provide people with equitable and efficient access.
 - minimise dispersed trip-generating development that can only be accessed by cars;
 - ensure that a network of viable, mixed use centres closely aligned with the public transport system accommodates and creates opportunities for business growth and service delivery;
 - protect and maximise community investment in centres, and in transport infrastructure and facilities;
 - encourage continuing private and public investment in centres, and ensure that they are well designed, managed and maintained; and
 - foster growth, competition, innovation and investment confidence in centres, especially in the retail and entertainment sectors, through consistent and responsive decision making.
- This policy relates specifically to retail, bulky good outlets, leisure and entertainment, offices, community health and education facilities and existing isolated commercial developments. It is referred to in the Far North Coast Regional Strategy and will accordingly need to be taken into consideration in the master plan process.

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Broad Estimate of Costs

AREA	FILL	INFRA	DRAINAGE	SUM	INC 10% CONTINGENCY	INC GST
2	1,475,000.00	1,334,000.00		2,809,000.00	3,089,900.00	3,398,890.00
3	2,100,000.00	3,567,000.00		5,667,000.00	6,233,700.00	6,857,070.00
8	625,000.00	1,471,000.00		2,096,000.00	2,305,600.00	2,536,160.00
10	500,000.00	806,000.00		1,306,000.00	1,436,600.00	1,580,260.00
11	2,625,000.00	1,741,000.00		4,366,000.00	4,802,600.00	5,282,860.00
24	375,000.00	716,000.00		1,091,000.00	1,200,100.00	1,320,110.00
DRAINAGE AREAS			400,000.00	400,000.00	440,000.00	484,000.00
CORKS LANE		1,337,000.00		1,337,000.00	1,470,700.00	1,617,770.00
STH CROSS DRIVE CONNECTION		1,394,000.00		1,394,000.00	1,533,400.00	1,686,740.00
AIRPORT LINK		1,070,000.00		1,070,000.00	1,177,000.00	1,294,700.00