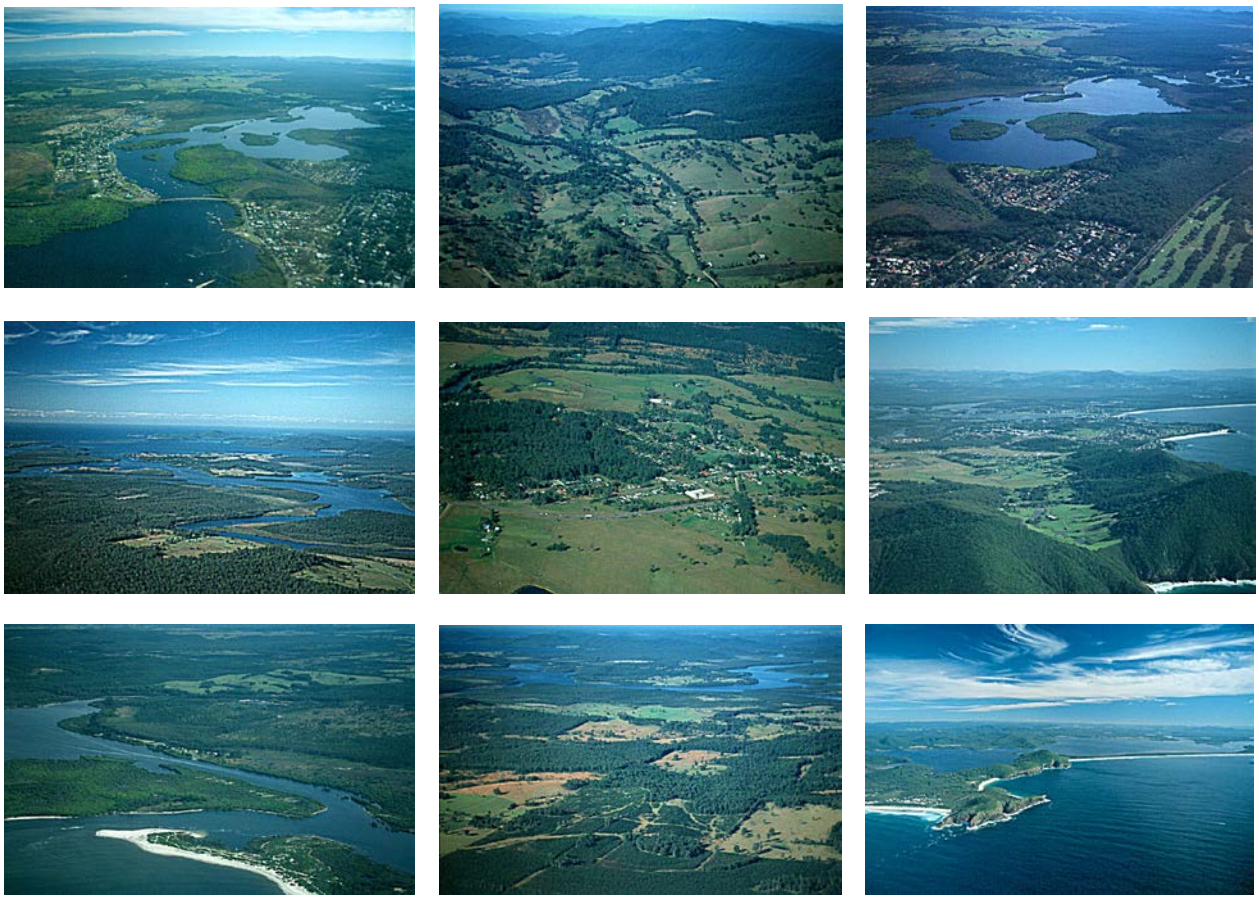
Great Lakes
Rural Living Strategy

Strategic Environmental Assessment and Strategy



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PLEASE NOTE CHANGES TO THIS STRATEGY AS REQESTED BY THE DEPARTMENT OF INFRASTRUCTURE, PLANNING & NATURAL RESOURCES

Great Lakes Council
March 2004

Great Lakes Rural Living Strategy

Strategic Environmental Assessment and Strategy

Prepared for Great Lakes Council by

EDGE
LAND PLANNING
Rural and Environmental
Planning Consultants
PO Box 1858
Bowral, 2576
Ph: 02 48614983
Fax: 02 48616778
www.ruralplanning.com.au
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Chapter 1: Introduction

The rural lands of Great Lakes provide an important resource for the Local Government Area and the wider region. This resource consists of a number of components:

- Rural Landscapes
- Agricultural Lands
- Native Vegetation
- Habitat Linkages
- Living Areas

Each of these is important in its own right but it is the sum of them that provides the resource for the future.

The Rural Living Strategy will provide a future direction for the settlements and land within the rural areas of the LGA. It does not cover the future of the towns of Forster, Tuncurry, Hawks Nest, Tea Gardens, Pacific Palms or Smith Lakes as these are addressed in separate strategies. It does however consider the future rural living opportunities around those towns.

The Rural Living Strategy has four component documents as follows:

- Community Consultation Report
- Background Data Report
- Issues Paper
- Strategic Environmental Assessment and Draft Strategy

The Assessment of the environment of the LGA, which has been outlined in the Background Data Report and Issues Paper, brings together the issues and discusses them and provides options to be considered as part of a strategy.

The documents were exhibited for a period of 3 months from September to December 2002. After consideration of submissions and further discussions with the community, the Strategy was adopted on 9 March 2004.

The preparation of a strategy enables the Council to address the big picture issues as well as giving an indication about the future direction for the development of an area. It is important to recognise however, that this strategy gives a direction for further work. It does not rezone any land – it provides an indication of the future land use designations for the area.

The measure of success of a strategy is its implementation by the Council and the acceptance of this by the community. This strategy makes a series of recommendations that will have an impact on the Council's resources. In an area like Great Lakes where new urban housing is being produced, a large amount of the resources of the Council is devoted to these areas. Too often in the past, the provision of services and facilities to the rural areas has not kept pace with the urban areas. It should be recognised that the Council needs to devote a considerable amount of resources to achieve the outcomes that would be expected by the community if the strategies were to be implemented. If we are to achieve a sustainable future for the rural areas, this resource imbalance needs to be rectified. Costing of the strategies need to be considered in the context of the Council's Management Plan.

The Council's vision and corporate objectives are as follows:

> *Great Lakes Great Service Great Lifestyle*
>
> *Committed to the provision of infrastructure and services which conserve the natural environment and achieve a quality lifestyle for residents and visitors*

CORPORATE OBJECTIVES

CORPORATE MANAGEMENT

To create a management capability and culture for the achievement of corporate goals, strategies and plans

BUILT AND NATURAL ENVIRONMENT

To encourage and service the ecologically sustainable development of the area

COMMUNITY WELL-BEING

To manage a range of quality infrastructure and services which enhance community well-being

INFRASTRUCTURE MANAGEMENT

To manage as custodian of the community's assets the provision of quality transport, drainage and waste services

ECONOMIC DEVELOPMENT

To facilitate a climate conducive to the generation and maintenance of the economic viability of the area

This report presents a strategic environmental assessment of the issues identified in the previous reports and discusses options that can be pursued as part of the draft strategy.

A strategic environmental assessment is an assessment of a set of strategic options. It can be defined as the formalised, systematic and comprehensive process of evaluating the environmental impacts of an action and its alternatives. (Therivel et al)

> *"Strategic environmental Assessment is the term used to describe the application of environmental Assessment to various stages in the planning process that occur prior to the consideration of specific projects. It may be given another name, depending on the nature of the planning stage involved.*
>
> *Regardless of the terminology used, strategic Assessment primarily differs from project-specific Assessment in terms of scale and timing. In regard to scale, strategic Assessment:*
>
> > *i) incorporates a number of potential developments as opposed to a single project;*
> > *ii) considers a broader range of alternatives;*
> > *iii) involves a wider geographic area; and,*
> > *iv) addresses environmental impacts at a more aggregated level.*
>
> *In terms of timing, the period between the conduct of a strategic Assessment and the resulting environmental impacts will be longer than is the case with project-specific Assessments."* (OECD, 1999 p5)

The report has been broken into two parts – Part A is the Strategic Environmental Assessment and Part B is the draft strategies. The document deals with the rural parts of the LGA.

Note that the Forster Tuncurry Strategy and the Hawks Nest Tea Gardens Strategy cover the expansion of these areas and the surrounding land. This is particularly so for the Forster Tuncurry Strategy that also includes the settlements of Pacific Palms and Green Point. There is also some overlap between the areas that are covered in the Forster/Tuncurry Conservation and Development Strategy and the Tea Gardens/ Hawks Nest Conservation and Development Strategy and this Rural Living Strategy.

Changes to this Strategy

Since the adoption of this Strategy by Council in August 2004, the Department of Infrastructure, Planning & Natural Resources (DIPNR) have proposed several changes. The Department, for various reasons, has requested that some of the rural residential and village expansion precincts nominated by Council be ascribed a lower priority for rezoning. The nominated rural residential and village expansion areas are as set out in Table A on pages 20 &21. The table also shows the categories nominated by Council, the changes requested by DIPNR and the reasons for the Departments requested changes.

PART A - The Options

Chapter 2: Conservation and Development Issues

There are a number of uses and issues which influence the settlement pattern of Great Lakes. The resources necessary to use the land are finite and need to be conserved. There are a number of constraints to the use of the land and the resource.

Underlying all of the issues are the philosophies of Ecologically Sustainable Development (ESD) and Total Catchment Management (TCM). It is shown graphically in figure 2.1. The figure illustrates the interconnectedness of the issues and the fact they all must be considered in relation to each other and cannot be considered in isolation.

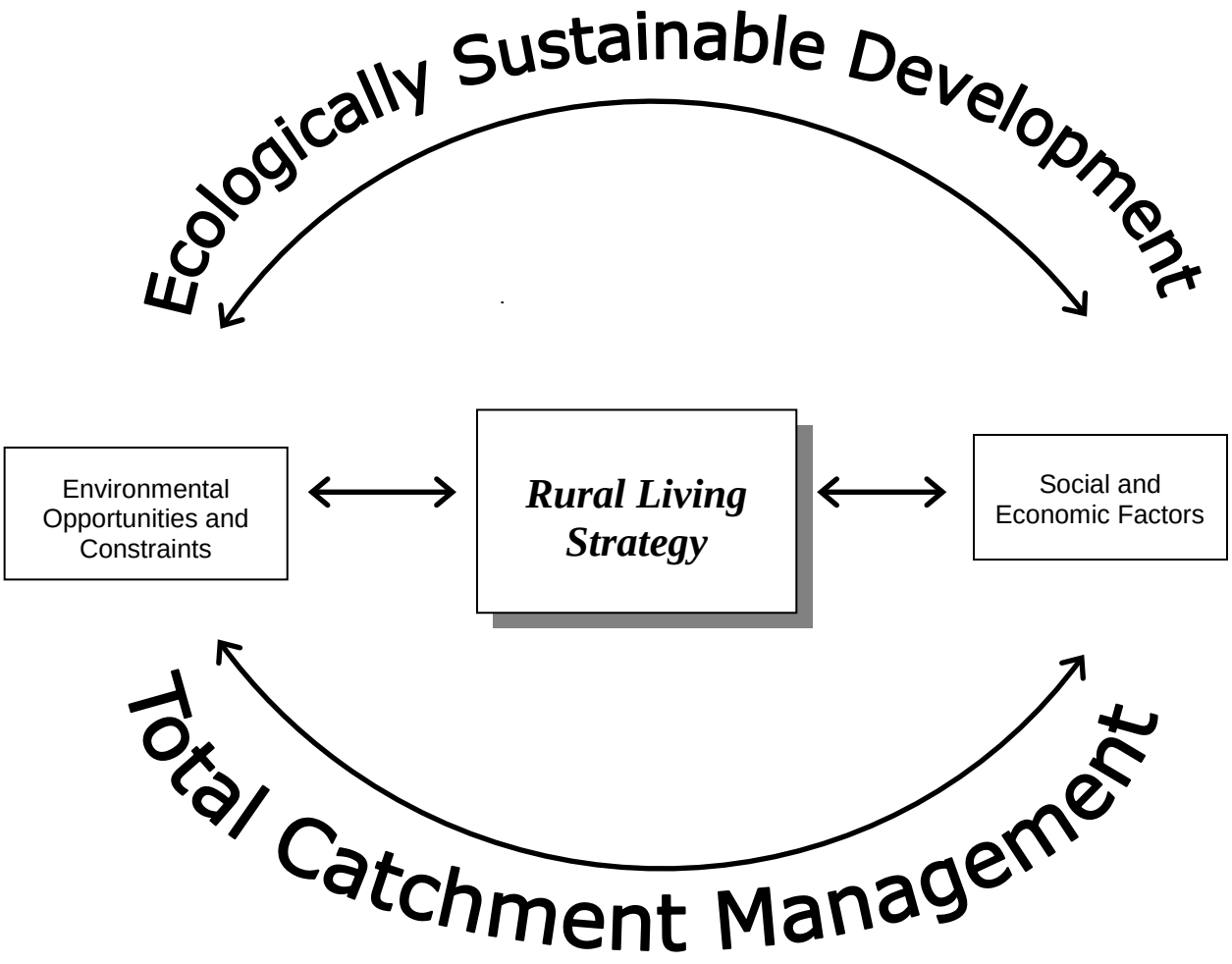


Figure 2.1: Categorisation of Issues

Source: Sinclair 2002d

The Issues Paper has dealt with the issues that have to be considered as part of this project.

Each of the issues needs to be addressed in order to provide for a sustainable future for the rural lands. They are outlined below:

Environmental Opportunities and Constraints	**Social and Economic Factors**
▸ Water Catchments	▸ Growth Management
▸ Biodiversity	▸ Housing types
▸ Soil	▸ Rural residential development
▸ Topography	▸ Settlement size and function
▸ Bushfire	▸ Agriculture
▸ Flooding	▸ Rural land use conflict
▸ Acid Sulphate Soils	▸ Land use and lot size
	▸ Domestic effluent disposal
	▸ Infrastructure
	▸ Solid waste disposal
	▸ Access and roads
	▸ Economic Development
	▸ Tourism
	▸ Heritage
	▸ Community facilities and services

Chapter 3: Strategic Environmental Assessment

The previous documents have identified the environmental, social and economic characteristics of the LGA as well as the issues that have to be addressed to ensure there is a sustainable future.

This chapter will provide an analysis of the characteristics and issues in order to discuss and recommend a course of action to be adopted by the Strategies.

3.1. Growth Management

Growth management is the essence of planning for rural land. It is about ensuring growth that occurs is managed so that it happens in an effective and efficient way as well as maintaining and conserving the resources for future generations. Hence it must be sustainable.

Growth management is not just about providing for more subdivision and housing. It is about managing the social and economic implications of future growth in a responsible manner while raising the awareness of the need to protect and preserve the environmental values of an area.

There is a need to ensure that growth management occurs in a wider strategic context. Therefore, the growth management of Great Lakes has to consider the impact on and of other areas outside the LGA. This includes economic, social and environmental impacts.

Given the identified constraints and strategic imperatives for Great Lakes, the following growth management principles have been identified:

- Limit expansion to those centres that have the capacity for growth;
- Provide for new rural residential development only where appropriate services can be provided and where environmental impacts can be minimised;
- Encourage and promote a diverse range of agricultural and other rural uses; and
- Embody the concepts of
  - Ecologically Sustainable Development
  - Total Catchment Management

To do this there is a need to identify and assess the capacity of the towns and villages so that expansion occurs in an efficient and planned manner.

3.2. Settlement Hierarchy

There is a need to address how the settlements in the area relate to themselves as well as how they relate to the other settlements in the wider region.

A hierarchy of settlements should be made based on the facilities and role they play rather than purely population. One of the matters that categorises a settlement is the shopping facilities that are available in the centre. There are three basic shopping trips:

- *Convenience shopping* relates to the daily shopping needs of bread and milk as well as newspapers and emergency purchases not done at other times.
- *Weekly shopping* is for the basic food and household shopping needs and is usually done in a chain supermarket.
- *Comparison shopping* is the shopping trips done for larger items of household and personal items such as whitegoods, furniture and clothing.

In an area like Great Lakes, with a large number of scattered settlements, this distinction can be sometimes blurred, but for the purposes of a hierarchy of settlements, it is valid.

In addition to shopping, the presence of other facilities such as schools and sports grounds also help to delineate the settlement type.

A four order hierarchy is suggested for Great Lakes. This has the following components:

- *Regional Centre.* This provides a wide range of employment, entertainment and recreational opportunities, a full range of local services and higher order services such as Hospital, TAFE College and University as well as a high school and major indoor recreation facility. It also has the Council administration and regional offices of State Government departments. It has a large mixed commercial area providing service, retail and office uses with a large chain supermarket and a discount department store. It caters for convenience, weekly and comparison shopping. It is the principal centre of the LGA.
- *Town.* This provides a range of local services and variety of employment opportunities in tourism and retail but relies on the Regional Centre for other opportunities. It has shopping for weekly and convenience shopping.
- *Village*. This provides only for convenience needs and typically has only a general store / post office.
- *Rural Centre*. This is an area which has a small number of houses but no shopping facilities. There may be a community hall.

The settlement hierarchy proposed for Great Lakes is shown in table 3.1. Map 3.1 shows the proposed settlement hierarchy for the LGA. The links to centres in adjoining Council areas occurs for the higher order centres, particularly those larger centres close to the edges of the LGA.

The expansion of towns and villages should be based on the capability of the town or village to cope with the expansion by way of facilities and services provided in the town or village. Where a settlement is on the boundary between two local government areas, the features of the settlement should be considered and not the LGA boundary. The hierarchy outlined above is based on the facilities and services provided in each town and village. This is summarised in table 3.2.

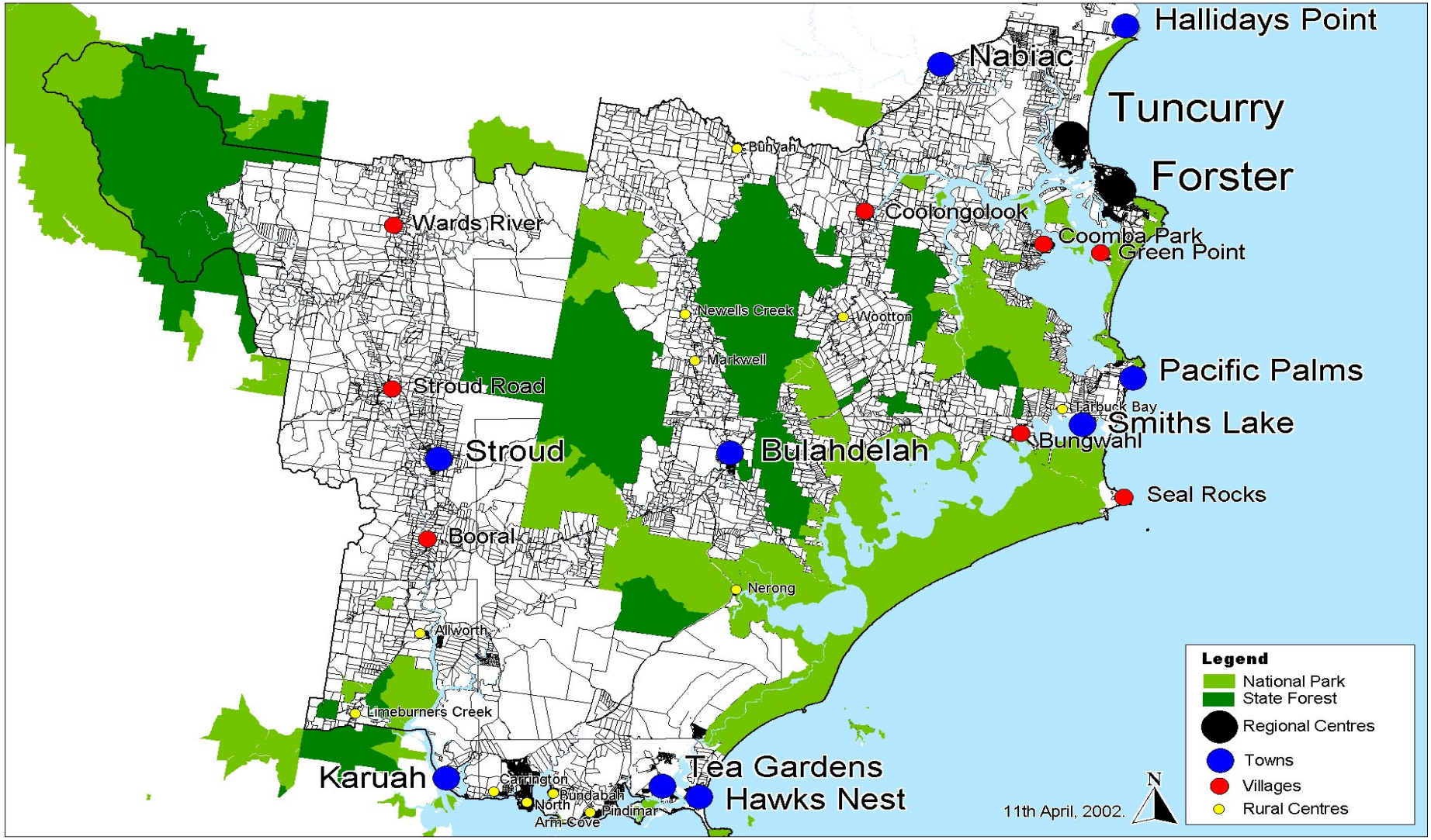
It follows therefore, that the towns are the areas that will be expanded.

Table 3.1: Proposed Settlement Hierarchy

Hierarchy Title	Settlement	
Regional Centre	▪ Forster – Tuncurry ▪ Taree ▪ Raymond Terrace	
Towns	▪ Bulahdelah ▪ Stroud ▪ Nabiac ▪ Gloucester	▪ Hawks Nest – Tea Gardens ▪ Pacific Palms – Smiths Lake ▪ Karuah (including North Karuah) ▪ Hallidays Point
Villages	▪ Coolongolook ▪ Coomba Park ▪ Bungwahl ▪ Wards River	▪ Booral ▪ Stroud Road ▪ Seal Rocks ▪ Green Point
Rural Centre	▪ Allworth ▪ Bundabah ▪ Bunya ▪ Nerong ▪ Wootton ▪ Newells Creek	▪ North Arm Cove ▪ Carrington ▪ Pindimar ▪ Limeburners Creek ▪ Markwell ▪ Tarbuck Bay

Table 3.2: Facilities and Services Provided in each Settlement

Service/Village/Urban Area	Allworth	Booral	Bundabah	Bungwahl	Bunyah	Bulahdelah	Carrington	Coolongolook	Coomba Park	Forster/Tuncurry	Green Point	Karuah	Limeburners Creek	Markwell	Nabiac	Newells Creek	Nerong	North Arm Cove	Pacific Palms	Pindimar	Stroud	Seal Rocks	Smiths Lake	Stroud Road	Tarbuck Bay	Tea Gardens/ Hawks Nest	Wootton	Wards River
Education - Primary		✓		✓		✓		✓		✓		✓			✓				✓		✓			✓		✓		✓
Education - Secondary						✓				✓														✓		✓		✓
Bank						✓				✓																		
Post Office				✓		✓				✓	✓	✓			✓				✓		✓	✓		✓		✓		
Police						✓				✓		✓			✓						✓					✓		✓
Ambulance						✓				✓											✓							
Rural Fire Station	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			✓	✓		✓		✓	✓		✓	✓
Health Services or Doctor						✓				✓		✓							✓		✓							
Pharmacy						✓				✓		✓							✓		✓					✓		
Community Hall	✓	✓		✓	✓	✓		✓	✓	✓	✓	✓	✓		✓			✓	✓		✓					✓		
Sporting Facility		✓			✓	✓			✓	✓		✓		✓	✓			✓	✓		✓			✓		✓	✓	
Showground						✓				✓					✓						✓		✓			✓		
Small Business Centre						✓				✓		✓			✓				✓		✓					✓		
Mini-market with Fresh Foods						✓				✓		✓			✓				✓		✓		✓			✓		
General Store				✓		✓		✓	✓	✓	✓	✓			✓				✓		✓		✓	✓		✓		
Newsagent				✓		✓			✓	✓	✓	✓			✓				✓		✓	✓	✓	✓		✓		✓
Takeaway/Café/Restaurant						✓		✓		✓	✓	✓			✓				✓		✓	✓	✓	✓		✓		✓
Petrol Station		✓		✓		✓		✓		✓		✓			✓		✓		✓		✓	✓	✓			✓		
Hotel						✓		✓	✓	✓	✓	✓			✓				✓		✓	✓				✓		✓
Church	✓	✓			✓	✓	✓			✓		✓			✓				✓		✓		✓			✓		
Reticulated Sewerage						✓				✓	✓	✓			✓						✓					✓		✓
Reticulated Water						✓				✓	✓	✓			✓				✓		✓		✓		✓	✓		
Regular School Bus Service	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓


Hallidays Point
Nabiac
Tuncurry
Forster
Bunyah
Coolongolook
Wards River
Coomba Park
Green Point
Newells Creek
Wootton
Markwell
Pacific Palms
Stroud Road
Tarbuck Bay
Smiths Lake
Bungwahl
Stroud
Bulahdelah
Seal Rocks
Booral
Nerong
Allworth
Limeburners Creek
Karuah
Carrington
Tea Gardens
Bundabah
North
Pindimar
Arm Cove
Hawks Nest
11th April, 2002.
N
Legend
National Park
State Forest
Regional Centres
Towns
Villages
Rural Centres

Map 3.1 : Proposed Settlement Hierarchy

3.1.1. Potential for Expansion of Settlements

The major issues for the potential of a centre to expand are as follows:

- Provision of reticulated water and sewerage
- Provision of adequate access to the higher order centres (road and public transport)
- Ability to provide for social services and facilities
- Presence of unconstrained land surrounding the settlement
- Ability to absorb a higher density of population

The settlement profiles in the Background Data Report show that most of the settlements are constrained for further expansion. This is because of the following issues:

- impact on waterways (lakes, creeks and ocean)
- locational and access considerations
- heritage and or country town character
- native vegetation
- proximity to intensive agriculture
- lack of facilities and services

The form of new settlement and expansion is an issue particularly with areas such as Stroud which has a heritage focus and an old urban type of subdivision pattern. The development of a new subdivision pattern on the edges of towns has to be done in a manner that is sympathetic to the character of the existing settlement. Council has recently adopted a Heritage DCP for Stroud.

The management of the growth of a centre is the main purpose of this document. Growth is best managed by providing a mixture of expansion at the edges and medium to higher density living. This is not to say that all of the settlements have to have this mixture. Council currently allows for higher density development in Forster and Tuncurry and this should be supported. It is not appropriate for any higher density development in other centres.

Table 3.3 show the settlements with constraints and which therefore should not be expanded whilst Table 3.4 provides the details of those settlements which have some capacity for expansion and the issues that have to be addressed. Photo 3.1 shows Forster – Tuncurry which is classed as a regional centre and Photo 3.2 shows Stroud, a town and Photo 3.3 shows Stroud Road which is a village and Photo 3.4 shows Allworth which is a rural centre in the recommended hierarchy. Maps 3.2, 3.5, 3.7, 3.9, 4.1 and 4.3 show the constraints for the towns identified for expansion in Table 3.3.

Photo 3.1 Forster Tuncurry - regional centre

Photo 3.2 Stroud – a Town in the settlement hierarchy

Photo 3.3: Stroud Road – a village

Photo 3.4: Allworth – a rural centre

Table 3.3: Settlements with constraints for expansion

Settlement	Constraint
Allworth	Agricultural uses, proximity to Karuah River, isolated and lack of water and sewerage and community services and facilities
Booral	Topography and native vegetation, isolated and lack of water and sewerage and community services and facilities
Bundabah	Topography and native vegetation, isolated and lack of water and sewerage and community services and facilities
Bungwahl	Topography and native vegetation, isolated and lack of water and sewerage and community services and facilities
Bunyah	Topography and native vegetation, agriculture, isolated and lack of water and sewerage and community services and facilities
Carrington	Isolated and lack of water and sewerage and community services and facilities, low-lying and native vegetation
Coolongolook	Proximity to Coolongolook River, isolated and lack of water and sewerage and community services and facilities
Coomba Park	Proximity to Wallis Lake, isolated and lack of water and sewerage and community services and facilities
Limeburners Creek	Native vegetation, isolated and lack of water and sewerage and community services and facilities, proximity to Limeburners Creek
Markwell	Isolated and lack of water and sewerage and community services and facilities, agriculture and native vegetation
Nerong	Native Vegetation, proximity to Bombah Broadwater, isolated and lack of water and sewerage and community services and facilities
Newells Creek	Native vegetation, agriculture, isolated and lack of water and sewerage and community facilities and services
North Arm Cove	Native Vegetation, isolated and lack of water and sewerage and community services and facilities
Pindimar	Native vegetation, topography, isolated and lack of water and sewerage and community services and facilities, SEPP 14 Wetland and low-lying land.
Seal Rocks	Topography, native vegetation, proximity to ocean, isolated and lack of water and sewerage and community services and facilities
Stroud Road	Agricultural uses, isolated and lack of water and sewerage and community services and facilities
Tarbuck Bay	Native Vegetation, isolated, lack of water and sewerage and community services and facilities
Wards River	Isolated and lack of water and sewerage and community services and facilities
Wootton	Isolated and lack of water and sewerage and community facilities and services, topography

Table 3.4: Settlements with capacity for expansion and issues to be considered

Settlement	Issues to be addressed
Bulahdelah	Flooding, Native vegetation, extensive and intensive agricultural uses and topography
North Karuah	Proximity to Karuah River, impact on Karuah (outside LGA), native vegetation, impact on Pacific Highway
Nabiac	Native vegetation, flooding, proximity to Wallamba River, impact on Pacific Highway, extensive and intensive agricultural uses
Stroud	Extensive and intensive agricultural uses, topography, native vegetation.
Forster Tuncurry	Forster Tuncurry Conservation and Development Strategy
Pacific Palms	Forster Tuncurry Conservation and Development Strategy
Green Point	Forster Tuncurry Conservation and Development Strategy
Smiths Lake	Forster Tuncurry Conservation and Development Strategy
Hawks Nest Tea Gardens	Hawks Nest Tea Gardens Conservation and Development Strategy

Note that the Forster Tuncurry Strategy and the Hawks Nest Tea Gardens Strategy cover the expansion of these areas and the surrounding land. This is particularly so for the Forster Tuncurry Strategy that also includes the settlements of Pacific Palms and Green Point. There is also some overlap between the areas that are covered in the Forster/Tuncurry Conservation and Development Strategy and the Tea Gardens/ Hawks Nest Conservation and Development Strategy and this Rural Living Strategy.

3.3. Rural Residential Development

The model for the identification of rural residential areas of the Strategy is to identify service centres and a settlement hierarchy, around which, appropriate land will be designated for rural residential subdivision. It will also be necessary to address the rural land surrounding those settlements and to identify appropriate policy and zoning for that land.

The Department of Infrastructure, Planning and Natural Resources (DIPNR) Guidelines for Rural Settlement on the North Coast have been used as a guide, and have been augmented to relate to the specifics of Great Lakes. In order for a township or village to be defined as a "service centre" it needs to provide a range of basic community services in the form of shops, employment and social facilities. As set out in the DIPNR Guidelines, a service centre should contain the following:

- primary school;
- post office (with banking services);
- police station;
- churches;
- hotel;
- community hall or centre;
- sub-district or local sports complex;
- small business centre;
- reticulated water and connection to sewerage treatment works; and
- regular bus services into the village (especially for schoolchildren) and to larger centres.

In addition to this, other desirable basic services for local and passing tourist trade include:

- shops: - mini-market with fresh food & groceries, general store / newsagent, takeaway food and pharmacy; and
- services: - medical centre (doctor / dentist), primary school, petrol station; and tourists diner/ restaurant.

There is a need to identify the size of the service centre catchment which will also provide the areas for rural residential development. Initially Council identified two catchment areas for discussion which were based on an inner and outer catchment area for the major centre of Forster Tuncurry. This was measured at a road distance of 15 km for the inner and 25 km for the outer catchment. The smaller centres were measured at 6 km radius for the inner catchment and 15 km for the outer catchment. When this was mapped, it provided for a large amount of land to be considered for resubdivision. This as well as the long distance from the outer catchments to the centres was considered to have the potential to cause social, environmental and economic concerns and as such the outer catchment has not been considered any further, other than for Tea Gardens (Pindimar Rd area). In addition, the size of the centres and the services provided in them has resulted in only those with adequate services being considered for future subdivision. As a result, it has been considered that the inner catchment be used to delineate the future rural residential areas and that it only be around a designated centre that has an adequate level of service and facilities to cater for the increase in population. The catchment distances are related to time travel from a Service Centre, with 6km for a Town representing approximately 5 minutes and 15km for a Regional Centre representing approximately 10 minutes. The identification of the service centre is linked to the settlement hierarchy with the towns and regional centre being identified. The distances (from the post office) and level of service centre in the settlement hierarchy is as follows

- Town: 6 km
- Regional Centre: 15 km

Two forms of rural residential development are to be considered as follows:

- Rural Fringe
- Rural Lifestyle

The main difference between these two is that the Rural Fringe areas would have a minimum lot size of 1 ha and would be close to the service centres that have been outlined above. The rural lifestyle areas are proposed to be limited to the outer catchment of Tea Gardens in the Pindimar Rd and Gams Rd precincts shown on Map 4.4. It would have a larger minimum lot size of 2-5 ha and would provide for another form of living opportunity that is in a location that is not isolated from services and facilities, that is within the catchment of Tea Gardens as well as being within easy access to centres in Port Stephens like Raymond Terrace and is highly accessible to Newcastle, the Central Coast and Sydney.

3.3.1. Identified Service Centres

Council has determined the following service centres, which are outlined on the attached map:

- Forster/Tuncurry as a service centre with a 15 km road distance catchment area;

- Tea Gardens, Bulahdelah, Karuah, Stroud, Nabiac and Pacific Palms/Smiths Lake as secondary service centres with a 6 km road distance catchment area

The service centre catchments have been mapped to identify the constraints. These maps are reproduced as follows:

- Map 3.2 : Nabiac Urban and Nabiac – Tuncurry Rural Residential Constraints
- Map 3.5 : Bulahdelah Urban and Rural Residential Constraints
- Map 3.7 : Karuah Urban and Rural Residential Constraints
- Map 3.9 : Stroud Urban and Rural Residential Constraints
- Map 4.1 : Pacific Palms Rural Residential Constraints
- Map 4.3 : Tea Gardens Rural Residential Constraints

3.3.2. Assessment Criteria

There is a need to assess the land which is to be included in each catchment. To do this two sets of criteria have been identified. They are exclusionary criteria and management criteria. The exclusionary criteria is slightly different for the two proposed designations but the management criteria are the same.

Exclusionary Criteria for Rural Fringe

Within each 'catchment' certain areas of land will be unsuitable for rural residential development due to any one or several existing constraints. These Constraints cannot be generally overcome at reasonable environmental or economic cost. The land that would be excluded is as follows:

- productive agricultural land - land classed 1, 2 or 3 as identified by NSW Agriculture (it should be noted that the detailed Assessment may refine the classification as it is only done on a LGA wide basis which may show up some inaccuracies when applied to an individual property). If class 3 land is heavily fragmented, it may be able to be used for development with the agreement of NSW Agriculture;

- potential for urban expansion – ie. land zoned 1(c) or land within a reasonable distance of existing centres, with no significant constraints;

- adjoining land with existing productive and sustainable use for agriculture or forestry;

- ecological sensitivity - land within or immediately adjoining SEPP 14- Wetlands, or SEPP 26 - Littoral Rainforests (also within the 7(a) - Wetlands and Littoral Rainforest Zone), or the 7(b) - Conservation Zone and the 7(c) - Scenic Protection Zone;

- habitat value -. areas of land known to contain potential or existing habitat for threatened species and important natural linkages;

- flood risk - land identified by Council as having high flood risk;

- excessive slope – i.e., greater than 20%;

- soil strata and or slope unsuitable for on-site effluent disposal;

- direct access to the Pacific Highway or a minor local road that relies solely on the Pacific

- water quality sensitivity - proximity to waterways and groundwater level;

- bushfire prone areas – will be considered an exclusionary criteria if the management measures required for development necessitate the clearing of medium or high habitat;

- presence of mineral / natural resources and existing extractive industries; and
- Access must be directly available to a sealed or primary unsealed road.
- Land within 300 m of the Pacific Highway unless there are circumstances that may warrant a reduced buffer to the highway, such as topography and installation of noise reduction measures.

Exclusionary Criteria for Rural Lifestyle

- habitat value -. areas of land known to contain potential or existing habitat for threatened species and important natural linkages;
- flood risk - land identified by Council as having high flood risk and is poorly drained land;
- class 3 agricultural land unless it is already fragmented;
- if within NPWS Key habitat or linkage then there is to be compensatory planting and regeneration;
- steep land generally with a slope of greater than 25%.
- ecological sensitivity - land within or immediately adjoining SEPP 14- Wetlands, or SEPP 26 - Littoral Rainforests (also within the 7(a) - Wetlands and Littoral Rainforest Zone), or the 7(b) - Conservation Zone and the 7(c) - Scenic Protection Zone;
- habitat value -. areas of land known to contain potential or existing habitat for threatened species and important natural linkages;
- direct access to the Pacific Highway or a minor local road that relies solely on the Pacific
- bushfire prone areas – will be considered an exclusionary criteria if the management measures required for development necessitate the clearing of medium or high habitat, or where satisfactory emergency access is not available;
- access must be directly available to a sealed or primary unsealed road with no direct access to the Pacific Highway; and
- outside potential long-term urban areas.
- Land within 300 m of the Pacific Highway unless there are circumstances that may warrant a reduced buffer to the highway, such as topography and installation of noise reduction measures.

Management Criteria

Management criteria will be used to identify land and assess Development Applications for land that may be capable of supporting subdivision. They must be addressed at the rezoning stage. These include:

- standard of access - direct access via Council (or RTA) maintained road;
- existing provision or potential to provide basic infrastructure - electricity, telephone;
- solar access and wind - preferred locations have sufficient solar access and natural buffering from predominant winds;

- effluent disposal - effluent disposal can be adequately carried out on site or the lot connected to reticulated sewer, possibly enabling smaller minimum lot sizes. On-site disposal capability will depend upon soil strata and absorption capacity; slope and proximity to waterways and may, as a result, affect the minimum lot size;
- fire risk - land within or immediately adjoining areas identified by Great Lakes Rural Fire Service as having high fire risk;
- drainage - elevation and slope allow sufficient drainage of runoff from land;
- proximity to waterways - sufficient buffer area can be provided between waterways / creeks and the area identified for development;
- acid sulphate soils - low to medium risk to minimise potential for excavation to expose acid sulphate soils;
- proximity to land with existing or potential agricultural productivity, forestry or mineral resource extraction - sufficient buffer / setback can be provided to minimise potential of this activity to conflict with expectations of new small rural lot residents whose lifestyle and income is not dependant on rural productivity; and
- protection and management of riparian zones.

3.3.3. Development Staging Categories

This section nominates the categories for future development precincts. A three category system is used which is the same as that used in the Forster Tuncurry Conservation & Development Strategy. The use of the same system will enable the strategies to be consistent and be combined into one strategy for Great Lakes. The definition of the categories is as follows:

1. Category 1 areas are those precincts with a relatively high degree of certainty that most, if not all, of the land within the precinct can be rezoned and for which delegations for the rezoning process will be provided to Council from DIPNR with the endorsement of the Strategy.

2. Category 2 areas are those areas where there is a reasonable degree of certainty that at least a part of the area can be developed but further, more detailed investigations are required to prove the suitability and capability of these areas. Other factors, such as demand, will also determine whether these areas proceed to rezoning.

3. Category 3 includes areas of land not identified in the Strategy, which may be nominated by Council as being potentially suitable for development if extensive further investigations are undertaken and/or if there is a major change in Council or State Government Policy. These areas would have no endorsement from DIPNR and would require the merits of the site to be demonstrated through further investigation.

Table 3.5 lists the precincts in Category 1 Precincts.

Table 3.5: Category 1 Precincts (As adopted by Council)

CATCHMENT/TOWN	PRECINCT	DESIGNATION
Rural Residential Precints		
Nabiac/Tuncurry	Carefree Road expanded to include some land to the east of Beverleys Rd. Minimbah Road Aquatic Road	Rural Fringe **Rural Lifestyle/ Rural Fringe
Pacific Palms	Lakes Way West	Rural Fringe
Bulahdelah	Booral Road South	Rural Lifestyle
Tea Gardens	Gams Road Myall Way Pindimar Road	Rural Lifestyle Rural **Fringe/Lifestyle Rural **Fringe/Lifestyle
Stroud	Britton Court Road Land to west of Mill Creek Road.	Rural Fringe Rural Lifestyle
Urban Precincts		
Nabiac	See Forster Tuncurry Conservation & Development Strategy	Urban Development
Bulahdelah	Lee Street	Urban Development
North Karuah	Pacific Highway	Urban Development
Stroud	Bede Street	Urban Development
	Simmsville Rd	Urban Development
	Gamack Street	Urban Development
Large Lot Urban Precincts		
Nabiac/Tuncurry	Bullocky Way	Large Lot Urban
	Mill Rd	Large Lot Urban
Karuah	Pacific Highway	Large Lot Urban

- Development of this precinct for rural residential is dependent upon it being found unsuitable for urban development (see Forster/Tuncurry Conservation & Development Strategy)
- ** Designation is dependent upon availability of reticulated sewerage.

Table 3.6 lists the precincts in Category 2 Precincts.

Table 3.6: Category 2 Precincts (As adopted by Council)

CATCHMENT/TOWN	LAND	DESIGNATION
Bulahdelah	• Booral Road North • Pacific Highway East	• Rural Lifestyle (2ha) • Industrial Development/Commercial
Stroud	• Alderly Lane • Simmsville Road North.	• Rural Lifestyle (2ha) • Urban development
Pacific Palms	• Lakes Way East	• Rural Fringe

Category 3 Precincts

A category 3 precinct has been identified at the western end of Lee Street Bulahdelah (Part portion 32, DP753150). At least part of this land is likely to be flood prone, it is near two sawmills and about half of it is covered with vegetation. If further detailed studies are done to assess the extent of flooding and the significance of the vegetation and if the sawmills change use it may be possible to develop this land for urban purposes.

Another category 3 precinct has been identified on Mill Creek Rd Stroud. This precinct includes that part of Lot 100 DP 1014896 on the eastern side of Mill Creek Rd opposite the category 1 precinct. It also extends over the part of Lot 164 DP 95873 in the vicinity of an existing vineyard. Council believes that these two areas could be rezoned if the vineyard ceases operation or if other arrangements are made between the owners to overcome land use conflicts. These areas would be a Rural Lifestyle designation.

Changes to Categories

The Department, for various reasons, has requested that some of the rural residential and village expansion precincts nominated by Council be ascribed a lower priority for rezoning. Table A indicates the categories nominated by Council, the changes requested by DIPNR and the reasons for Departments requested changes.

Table A - DIPNR requested category changes to Rural Residential and Village Expansion Precincts

LOCALITY	PRECINCT	COUNCIL CATEGORY	DIPNR CATEGORY	REASONS FOR CHANGE BY DIPNR
Rural Residential Precincts				
Nabiac/Tuncurry	Carefree Road /Beverleys Rd.	1	No change	
	Minimbah Road	1	3	Remote from Nabiac. May be better alternatives closer to Nabiac in Taree LGA. Await outcomes of Taree Strategy
	Aquatic Road	1	No change	
Pacific Palms	Lakes Way West	1	3	May be better urban. Should be resolved with F/T Strategy.
Pacific Palms	Lakes Way East	2	3	Sensitive coastal location.

Bulahdelah	Booral Road South	1	3	Remote from Bulahdelah and necessitates direct highway travel.
Bulahdelah	Booral Rd North	2	3	As above. Has additional development constraints.
Tea Gardens	Gams Road	1	3	Future land use should await completion of Mid North coast Regional Strategy. Premature to nominate as rural residential until area is placed in broader strategic context. Possible long term urban.
Tea Gardens	Myall Way	1	3	
Tea Gardens	Pindimar Road	1	3	
Stroud	Britton Court Road	1	Urban	Supports recognised need for appropriate Heritage DCP provisions. This area is close to Stroud and would be better suited to urban dev't.
Stroud	Alderly Lane	2	3	These two areas are more isolated from Stroud and create potential for "ribbon" rural residential dev't.
Stroud	Land to west of Mill Creek Road.	1	3	
Stroud	Simmsville Road North	2	No change	
Urban Precincts				
Bulahdelah	Lee Street	1	No change	
Bulahdelah	Pacific Highway east	2	No change	
North Karuah	Pacific Highway east	1	3	Should await completion of Lower Hunter Regional Strategy and Port Stephens Settlement Strategy.
Stroud	Bede Street	1	No change	
	Simmsville Rd - south	1	No change	
	Gamack Street	1	No change	
Large Lot Urban Precincts				
Nabiac/Tuncurry	Bullocky Way	1	No change	
Nabiac/Tuncurry	Mill Rd	1	No change	
Karuah	Pacific Highway west	1	3	Should await completion of Lower Hunter Regional Strategy and Port Stephens Settlement Strategy.

3.3.4. Precinct Masterplans

Masterplans/Structure Plans will be required before the rezoning process is commenced for each precinct. A set of principles for each development precinct has been prepared and is included as Appendix 1 to guide the preparation of masterplans/structure plans. The principles cover such issues as lot size, density, effluent disposal, fauna, flora, corridors, bushfire, internal roads and access. Any issue relevant to a particular precinct has been included. The principles also include character statements of the area in which the precinct sits and how the future development of each precinct can compliment this. The principles are necessary so that development of a precinct does not undermine the Strategy's aims and to also give some certainty for landholders and developers as to the future development scenario of a precinct.

3.3.5. Application of Assessment Criteria to Identify Suitable Land

Maps 3.2, 3.5, 3.7, 3.9, 4.1 and 4.3 are the result of applying the criteria to the areas surrounding the towns in question and thus determining the areas that are considered to be suitable for village expansion and rural residential opportunities. The maps also show the land that is considered to be suitable (subject to meeting the management criteria) for either urban expansion or future Rural Fringe areas.

Each of the areas will now be discussed.

Nabiac/Tuncurry

Nabiac has urban expansion, large lot urban and Rural Fringe areas. This area is also covered by the Forster Tuncurry Conservation and Development Strategy and this has been used as the basis for the identification of areas as well as the application of the Assessment criteria.

The issues that lead to the identification of the urban expansion areas are as follows:

- Land to the north is currently zoned rural 1(d) and will require further investigation into the potential flood prone land as well as flora and fauna.
- Land to the east of the current village, although currently vegetated, is within the boundaries of the urban area and has good proximity to the existing services and facilities in Nabiac. There will have to be an Assessment of the native vegetation as well as flooding along with bushfire hazard.

Large lot urban precincts have been identified in the Bullocky Way and Failford Roads area, due to the proximity to existing areas:

- Land on the eastern side of Bullocky Way has been included due it its proximity to the adjoining large lot urban area on the western side of Bullocky Way.
- Land on the southern side of Failford Road & Bullocky Way intersection (to the east of Mill Rd) has been included due to its proximity to the existing "Highlands" Large Lot Urban subdivision as well as the caravan park on the western side of Mill Road.

Failford House, a local historic dwelling, currently occupies land on the southern side of Failford Road. The house has a high level of local heritage significance and relates to the development of the timber and shipbuilding industries and the growth of the region in the early twentieth century. *Failford House* potentially sets the character for the proposed future subdivision and needs to be protected from the possible adverse impacts of subdivision. Architectural styles, fencing and outbuildings in the proposed subdivision would need to be considered at the appropriate planning time.

Rural and Rural lifestyle designations have been identified for as follows:

- Land to the north of Nabiac, in the vicinity of The Pacific Highway/Failford Road intersection is a logical area and is not constrained except for its agricultural classification, the Pacific Highway buffer and flooding/drainage. It is currently fragmented which limits its agricultural potential. It has good access to Nabiac and to Tuncurry.
- Land at Aquatic Road at Darawank has been included because of the proximity of similar subdivisions in the area.
- Land to the south of Nabiac along Minimbah Road is generally unconstrained and is also fragmented. It is adjacent to an existing rural residential zone and has good access to Nabiac.

Bulahdelah

Bulahdelah has urban expansion as well as Rural Lifestyle areas.

There are 2 areas for urban development in Bulahdelah. One is on the eastern side of the Pacific Highway and is proposed to be an industrial area. This is because of the proximity to the Water Treatment Plant to the south and also the land is within 300 m of the existing Pacific Highway and proposed bypass, which is an exclusionary criteria for residential development. However for this to be progressed there is a need to undertake an investigation into the needs for industrial land in Bulahdelah. For this reason, it has been ranked as a category 2 area. The other land is to the north of the town which is the logical place for it to expand. It should be identified in association with the location of the highway bypass which is to be on the eastern side of the land and consideration should be given to its staging in association with the bypass construction.

The Land identified for Rural Lifestyle is to the south of Bulahdelah on the western side of the Highway, located on both the northern and southern sides of Booral Road. It is fragmented and the land to the south of Booral Rd has minimal constraints.

Land to the north of Booral Rd, has been listed as a category 2 area due to its potential to have an impact on the Bulahdelah water supply, which is taken from the Crawford River downstream of the land. There are also flooding/drainage, access and vegetation constraints on this land. In order for further consideration of this are there will need to be studies into the impact of the development on the Booral Water supply as well as a demonstrated demand for this style of development in the area.

Karuah

Karuah has urban expansion areas as well as a large lot urban area.

The urban expansion areas are additions to the existing village zoning and are not heavily constrained. There is a need to await the highway bypass because of the current access considerations and safety issues.

The land identified for large lot urban is to the north of the urban area and is not constrained, apart from draineg issues. However, consideration should be given to the staging in line with the highway bypass.

Stroud

Land has been identified for rural fringe, rural lifestyle and urban expansion in and around Stroud. Due to the presence of poultry farms and the potential rationalisation of the industry, all rezonings are not to occur until the new growing contracts for broiler farms have been awarded, which is due to occur in June 2004.

The land surrounding Stroud is heavily constrained by the presence of poultry farms. For this reason as well as the topographic and vegetation constraints amongst others, only 3 areas have been identified for future rural residential development. A precinct along Briton Court Road, north of Gortons Crossing Road, has been identified for rural fringe designation. Development of this precinct is not dependent upon the closure of any poultry farms. Expansion of the precinct may be possible if a poultry farm to the south of the precinct

were to cease operation. Any expansion would be dependent upon the demand for rural residential development.

Land along Mill Creek Road, at the outer limit of the catchment, has been identified for rural lifestyle (2 ha) development. The precinct is within a distinctly rural setting. Development of the precinct is not dependent upon the closure of any poultry farms.

Land at Alderly Lane is on the periphery of the catchment area and the main constraint is the presence of a poultry farm on the property immediately to the north of Alderly Lane as well as some vegetation in the south eastern corner of the property. There is only one shed on the nearby poultry farm and the odour impacts from this are unlikely to be as great as other larger operations. Even if there is still an odour impact this will not exclude the entire property from consideration for rural residential subdivision. The land has been nominated as a category 2 area subject to further investigations into the potential for odour emissions to impact on any future rural residential development on the land.

There are 4 areas identified for urban development in Stroud. Prior to the rezonings occurring, a demand assessment of the infrastructure needs of the future urban residents will be required including an assessment of the capacity of the Stroud Sewerage Treatment Plant to accommodate the additional loading from the anticipated development. These areas are as follows:

- South of Memorial Avenue land currently zoned for rural residential development is to be rezoned for urban use. This is to be the first stage of development.
- Simmsville Road. This land is subject to the cessation of the existing poultry farm in Simmsville Rd. It is to be the first precinct in conjunction with the land at Memorial Drive.
- Bede Street Precinct. This land is subject to the cessation of the existing poultry farm in Simmsville Rd. It is to be the second precinct to be developed.
- Gamack Street Precinct. This land is to be the third precinct to develop.

The Simmsville Road precinct lies to the north and south of the road. The land to the north has been nominated as category 2 and the land to the south is category 1. A three shed poultry farm exists on the land to the south of the road and this is the land could only be developed if the poultry farm ceases operation.

Stroud is the most historic town in the Great Lakes, and is in fact, one of the most historic towns associated with agricultural enterprise in Australia. One of the design features of such historic towns is the street layout based on a grid pattern. Consequently any new subdivisions should, as much as possible, continue the traditional layout.

Part of the precinct at Simmsville Rd is very steep. When considering whether to include the steeper part of the land reference should be made to Councils Engineering specifications for roads and intersections on steep land.

A preliminary review of a proposed subdivision layout for the land indicates that it will be difficult to meet Council's requirements without substantial earthworks, and even then some of the driveways may not be practical. Rather than exclude the steep part of the land from the Strategy entirely Council decided that it would be reasonable to suggest to the owner that if the layout can be satisfactorily revised then it could be elevated to category 1. Such revision would have to include much larger lot sizes over the steep areas and the owners will to have demonstrate that Council's Engineering design requirements can be met without excessive earthworks. This will necessitate the owner submitting more detailed engineering designs, including longitudinal sections.

In relation to the steeper part of the Simmsville Road property, this area will be included as category 1 if more detailed engineering designs demonstrate that Council's requirements for development of steep land can be met. Larger lot sizes, in the vicinity of 2ha, will be required with building envelopes and roads and driveways on flatter parts of the land.

It is noted that Stroud has a significant heritage resource and currently has a DCP over the town and this DCP is to be amended to cover the new urban precincts.

Pacific Palms

Two areas have been identified between Pacific Palms and Smiths Lake on the western side of the Lakes Way. The northern land is unconstrained except for a part of the regional habitat corridor which will have to be confirmed by further study in the rezoning process. The southern most area has a regional vegetation corridor over it and this can be assessed and its location confirmed by the rezoning process. It is considered that there is potential for some development in association with the corridor and there could be habitat improvement as a result of some development.

A further possible precinct for rural residential development has been identified on the eastern side of the Lakes Way. Rezoning of this area is conditional upon it being found unsuitable for urban development, as proposed in the Forster/Tuncurry Conservation & Development Strategy. Water quality is the main reason why this precinct may not be found suitable for urban development. The land is within a sensitive location and there are concerns in regard to possible nutrient load from water entering the southern end of Wallis Lake, which is poorly flushed.

If the land is found unsuitable for this higher form of development (urban), the appropriateness of utilising the precinct for rural residential development should be investigated.

Tea Gardens

There are 3 areas in the Tea Garden locality that have been identified for rural residential subdivision. The Tea Gardens/Hawks Nest Conservation and Development Strategy deals with the area also.

The first area is known as the Gams Road Precinct. The land is mostly unconstrained except for agricultural land classification and vegetation, however the land is also fragmented which limits its agricultural potential and the vegetation is primarily plantation pine forest. This area will be a Rural Lifestyle precinct unless it can be connected to reticulated sewerage in which case it me be Rural Fringe area.

The second area is located along both sides of Pindimar Rd near the intersection with Myall Way. There is an aquaculture operation and a wood chipping operation that has both been excluded from this precinct. A buffer has been created around the woodchip operation because of noise issues associated with it. The land to the south of the aquaculture operation has been identified because if its lack of major constraints and its fragmented nature which lessens its agricultural potential. Land to the west of the road has been identified which is not significantly vegetated and therefore is not constrained. Land within the precinct has been identified as mostly cleared of vegetation from aerial photographs.

This precinct has been identified as a Rural Lifestyle (2ha) or Rural Fringe (1ha) Designation. The reasons for the selection of either of these designations for the precinct relate to its distance from the Service Centre of Hawks Nest/Tea Gardens, vegetation and effluent disposal. It could only become Rural Fringe if reticulated sewerage can be connected to the subdivision.

Land along the northern side of Myall Way is the third area. It is proposed to be rural fringe designation. This is in recognition of the general suitability of the land for a smaller minimum lot size, the likely demand for rural residential allotments in the Tea Gardens area. There is also the possibility of urban development, in the long term, occurring nearer to the precinct (see TG/HN CDS). The Rural Fringe designation which has a lot size of 1 ha is, however, dependent on the ability to connect to a public sewerage system serving the area. If this cannot be achieved, the area will have to become rural lifestyle which requires a larger lot for on-site effluent disposal.

3.3.6. Precinct Lot Yields

Indicative lot yields have been prepared for each of the precincts listed in section 3.3.5.
These are summarised in Table 3.7.

Table 3.7: Indicative Precinct Lot Yields

Catchment	Precinct	Total Area (ha)	Approx developable area (ha)	Indicative Lot Yield			
				2ha	1ha	5000m^2	Urban
Rural Residential Development							
Nabiac/Tuncurry	Carefree Road	94.84	75	45	75	NA	
	Minimbah Road	259.07	160	80	160	NA	
	Aquatic Road	18	13.5	7	15	NA	
	Beverly's Road**	47	19	9	20	NA	
Pacific Palms	Lakes Way West	24	12	5	10	NA	
	Lakes Way East	44.42	40	20	40	NA	
Bulahdelah	Booral Road Sth	200	180	90	180	NA	
	Booral Road North	277.48	150	75	150	NA	
Tea Gardens	Gams Road	98.08	60	30	60	NA	
	Myall Way	170.29	150	80	160	NA	
	Pindimar Road	149.22	135	65	130	NA	
Stroud	Britton Court Road	55.9	45	22.5	45	NA	
	Mill Creek Road	109.4	77	35	70	NA	
	Alderly Lane	79.51	56	25	50	NA	
Karuah	Pacific Highway	44	35	17.5	35	70	
Urban Expansion							
Nabiac	See Forster/Tuncurry Conservation and Development Strategy						
Bulahdelah	Pacific Highway East	10	10				37
	Lee Street	20	12				140
North Karuah	Pacific Highway	5.5	5				35
Stroud	Bede Street	34	15				150
	Gamack Street	68.9	41				410
	Simmsville Rd	20	10				75
Large Lot Urban							
Nabiac/Tuncurry	Bullocky Way	46	41	20	41	82	
	Mill Road	51	9.18	4	9	15	

The lot yields were calculated in the following way:

- Dividing the developable area, minus 10% for roads etc, in each rural residential designation by 1 ha or 2 ha depending on whether reticulated sewerage will be connected.
- Multiplying each urban expansion precinct by 8 (ie. 8 lots per hectare – reflective of village sized lots or in the case of Karuah 7 because the lots will have to larger due to the steepness of the land)
- Multiplying the developable area in each Large Lot Urban Designation by 2 (ie. 5,000m² minimum lot size [2 lots/ha])
- The developable area has been determined by assessing the percentage of each precinct that should be excluded because of the constraints that are likely to be identified at the more detailed study stage.

It needs to be recognised that the above table represents an indicative yield of all precincts

In order to judge the effectiveness of any strategy, there is a need to carry out regular monitoring and review. This monitoring should be for both residential and rural residential land. As part of the implementation of the strategy, Council should establish a land monitor to monitor the release of land and compare it against the calculations done for the strategy. The progress of the release of land will be watched and if the take up rate is faster than anticipated, the strategy can be reviewed. The strategy should be reviewed after 5 years of operation.

A land release monitor should take the form of a spreadsheet that records the release of development applications and lodgment of linen plans as well as recording new dwelling constructions for each release area. This should be updated on a quarterly basis.

3.3.7. Rezoning Process

There is a need to carry out rezonings before any of the precincts mentioned above can be developed. The process for rezoning is shown in figure 3.1. The rezoning of land involves the preparation of a Local Environmental Plan (LEP) and associated Local Environmental Study (LES) and Development Control Plan (DCP). In order to make the best use of resources, one LEP /LES / DCP will be prepared for all land with each precinct. All costs associated with the rezoning as well as a Council rezoning management fee are to be met by the landowners. Where possible, urban expansion and rural residential rezonings are to be done at the same time using the same LEP, LES and DCP.

There are 4 major documents that have to be prepared as part of the rezoning process:

- Local Environmental Study (LES)and specialist studies, where applicable
- Precinct Master Plan
- Draft Local Environmental Plan (LEP)
- Development Control Plan (DCP)

The LES and supporting studies are to cover the matters listed in section 3.3.2 dealing with Assessment Criteria as well as the relevant masterplan principles. One LES is to be prepared for each precinct.

The most important feature of the rezoning process is that all development should be done in accordance with a masterplan for the entire precinct. A set of principles for each development precinct has been prepared and is included as Appendix 1.

A DCP is a document that will provide guidance for the preparation of development applications for subdivision and dwelling houses on the land.

That the following protocol be adopted for the involvement of external persons in the Local Environmental Study and Local Environmental Plan preparation process:

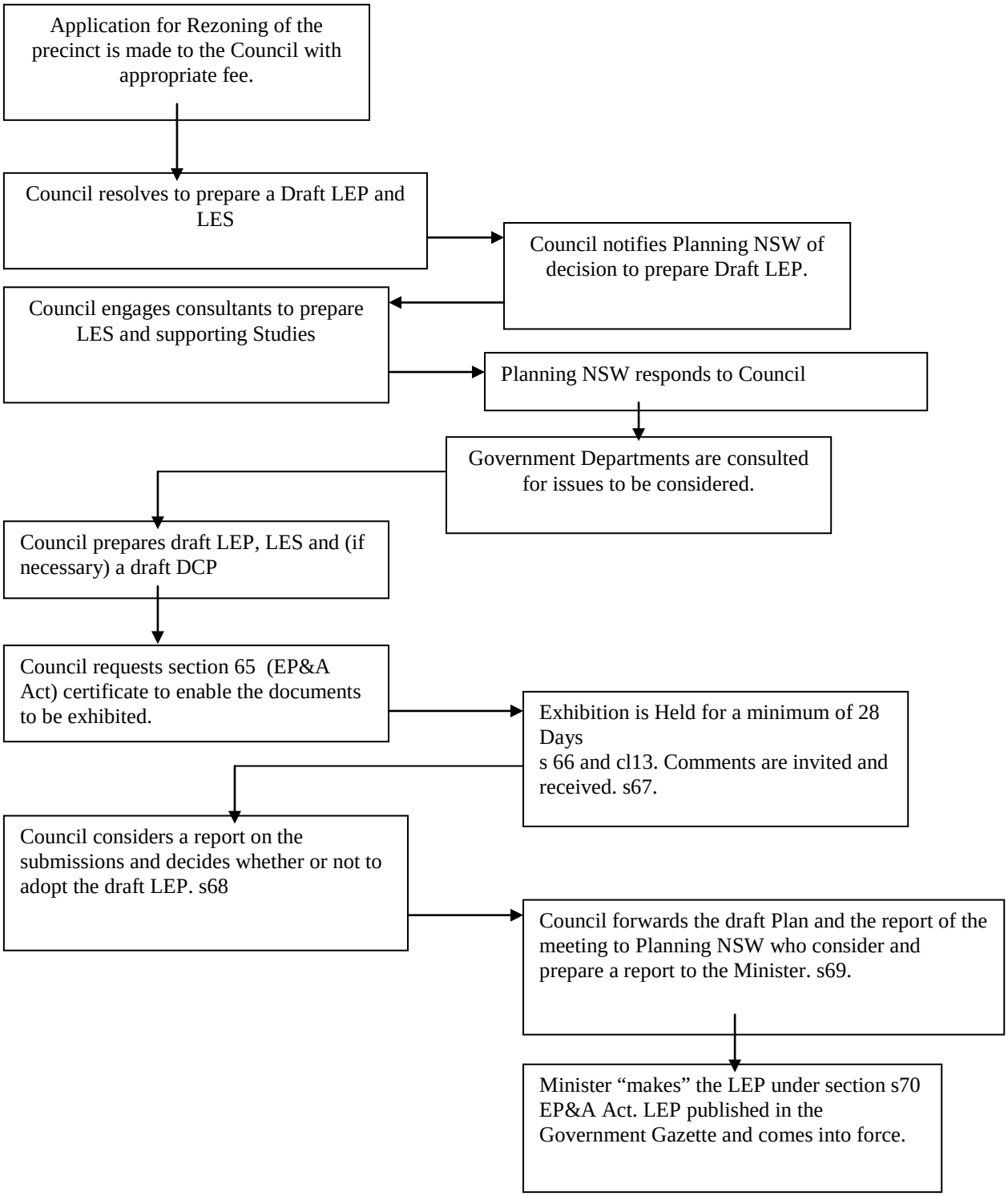
- The draft consultants brief be referred to the landowners and their consultants for their comment and advice on the information available on the land and to scope the range of issues that will have to be addressed in the LES.
- The landowners and their consultants be invited to attend an inception meeting with Council's consultants, and staff.
- The landowners be kept informed on the progress of the LES, but not on the findings.
- There is to be no direct contact between the landowners or their consultants and Council's consultant. Any communication or information exchange is to be through Council.
- The draft LES not be made available to any person until it is formally reported to Council.
- As soon as possible after being reported to Council, the LES shall be exhibited whereupon all parties who have an interest will be able to review factual matters, omissions and matters of interpretation.
- The landowners be given no access to a draft LES other than at the stages identified above.

Staging should be tied to a set of performance indicators / indicators of sustainability that will measure the performance of the previous stage before the next stage can be started. This could be included in the LEP and/or as a condition of consent.

A precautionary approach should be taken to the development with a system of indicators identified for monitoring before, during and after the development of the first stage. The timeframe will need to be determined having regard to discussions with other authorities at the time of rezoning. The monitoring should help to determine if the development is having any detrimental impact on the surrounding environment. If the first stage is acceptable in regard to the impacts, then the next stage can proceed. Monitoring should occur on a regular interval as well as an event basis and be carried out by the Council or by developers as a condition on consent. If a developer is to carry out the monitoring, it should be submitted to the Council at regular intervals, which will be outlined in the conditions of consent. It should be at the expense of the local landowners / developers. The monitoring should include total Phosphorous, total Nitrogen and suspended solids as well as design issues.

A specific clause should be included in the LEP, at the time of the rezoning of a precinct, to ensure that subsequent stages are only commenced after satisfactory performance of the development as measured by the monitoring.

Figure 3.1: LEP Process for a Greenfields Rezoning



3.3.8. Resubdivision of Existing Rural Residential Areas

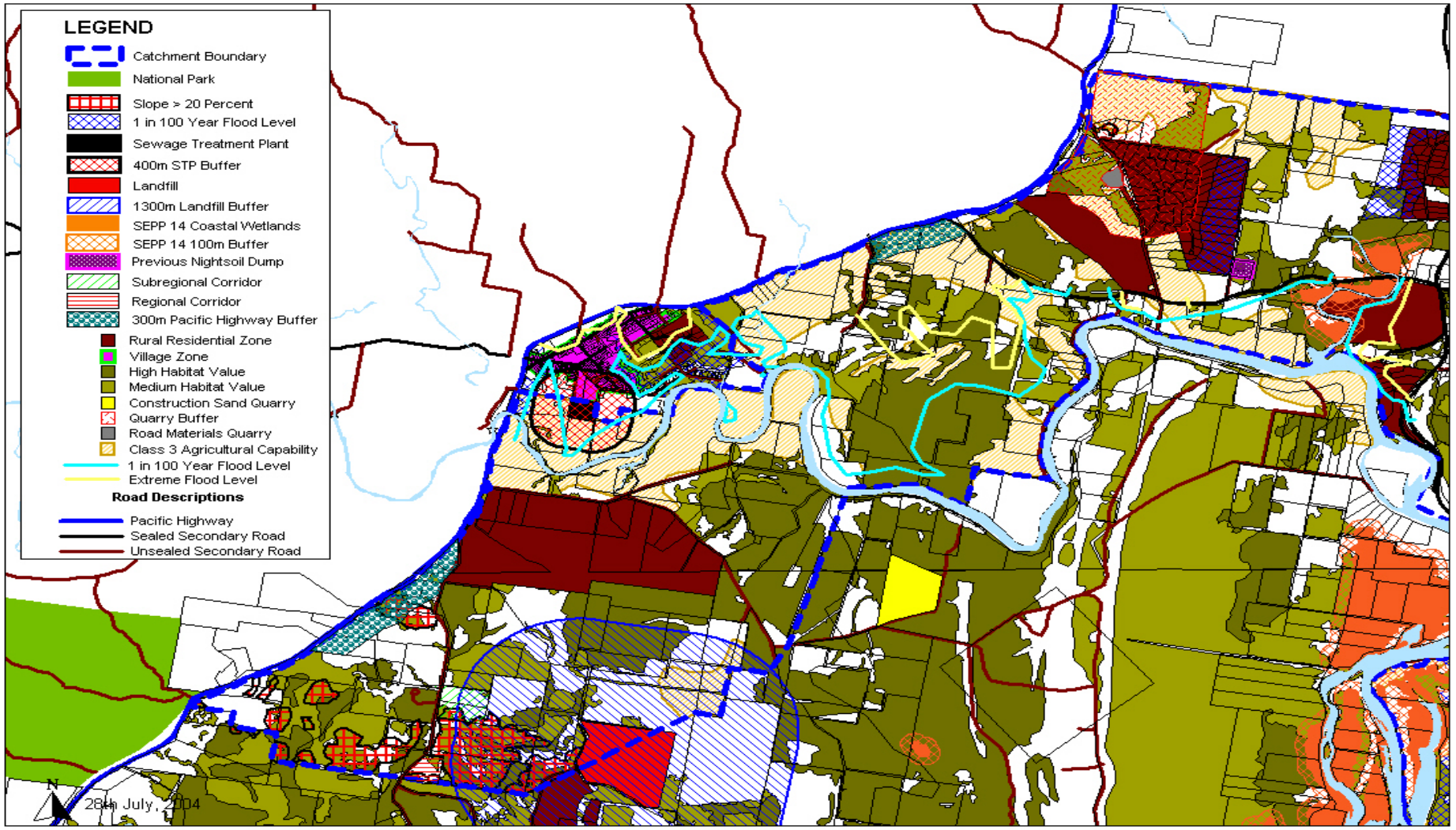
The resubdivision of existing rural residential areas below the current minimum lot size can, in theory, be a good way of creating more opportunities for rural residential development without the need to rezone more rural land. However, in practice, the lot yield is not as much as would be anticipated. The land is generally between 2 ha and 0.4 ha and is characterised by long narrow lots. There are a number of reasons for this which are outlined below:

- Not all people want to subdivide. People will move to an existing rural residential area because they like the large lots. Council has conducted a survey of the owners of land in Racecourse and Cape Hawke Estates to ascertain their views of resubdivision. The survey showed that only 10% of the people bought land with the aim of further subdivision and the majority (54% in Cape Hawke and 57% in Racecourse) did not want the land resubdivided.
- Smaller lots can lead to a loss of amenity. The survey showed that people liked the large lots and sense of space that came with this. Comments were made concerning the loss of amenity.
- The resulting subdivision pattern would be battle-axe lots. These are not seen as desirable because of the need to have a driveway next to the existing house, which can cause a loss of amenity, by the occupiers of that house. In addition, there can be a dust problem if the driveway is not sealed, which is often the case.
- The location of ancillary buildings on the land can interfere with the potential for resubdivision. Analysis of the Racecourse and Cape Hawke Estates has shown that there are 76% of the lots in the Racecourse estate with more buildings than the dwelling and 80% in the Cape Hawke Estate.
- Research in Penrith has shown that an estate that had a predominant lot size of 2 ha and which was subsequently rezoned to allow 1 ha lots has only had 38 of the 138 lots resubdivided in 8 years.
- There was not any allowance for resubdivision when the land was originally rezoned and subdivided.

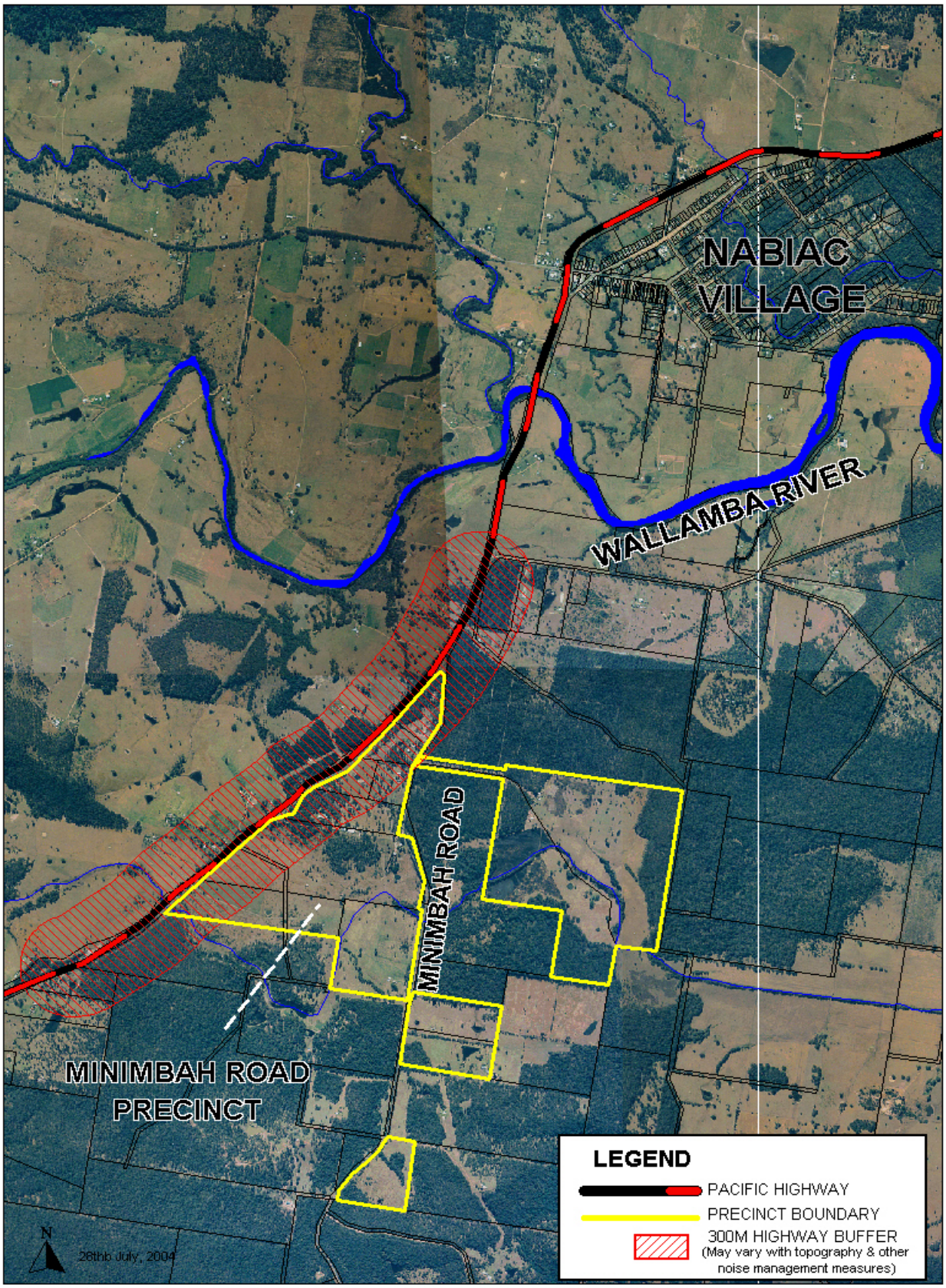
It can be seen therefore that resubdivision of existing rural residential areas into lots of less than the currently permissible lot size does not lead to a large number of new lots and can lead to a loss of amenity for the existing residents. Many of these residents bought the land for the rural residential amenity and Council believes that, at this stage, it would be unreasonable to allow re-subdivision that would result in a change of character.

Council has decided that it will not rezone existing rural residential estates to allow subdivision into lots of less than the currently permissible lot size.

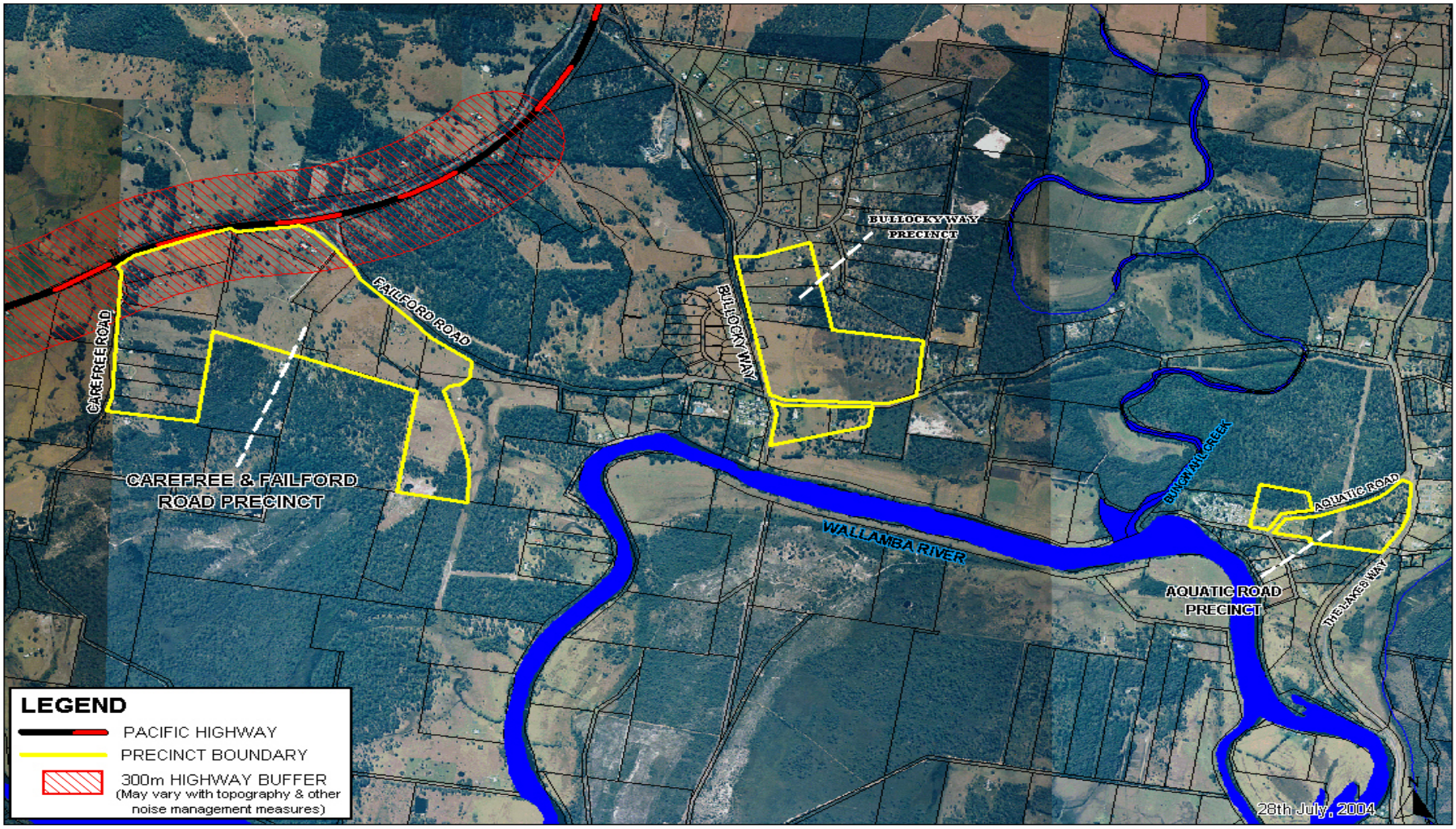
Map 3.2 : Nabiac Urban and Nabiac Tuncurry Rural Residential Constraint



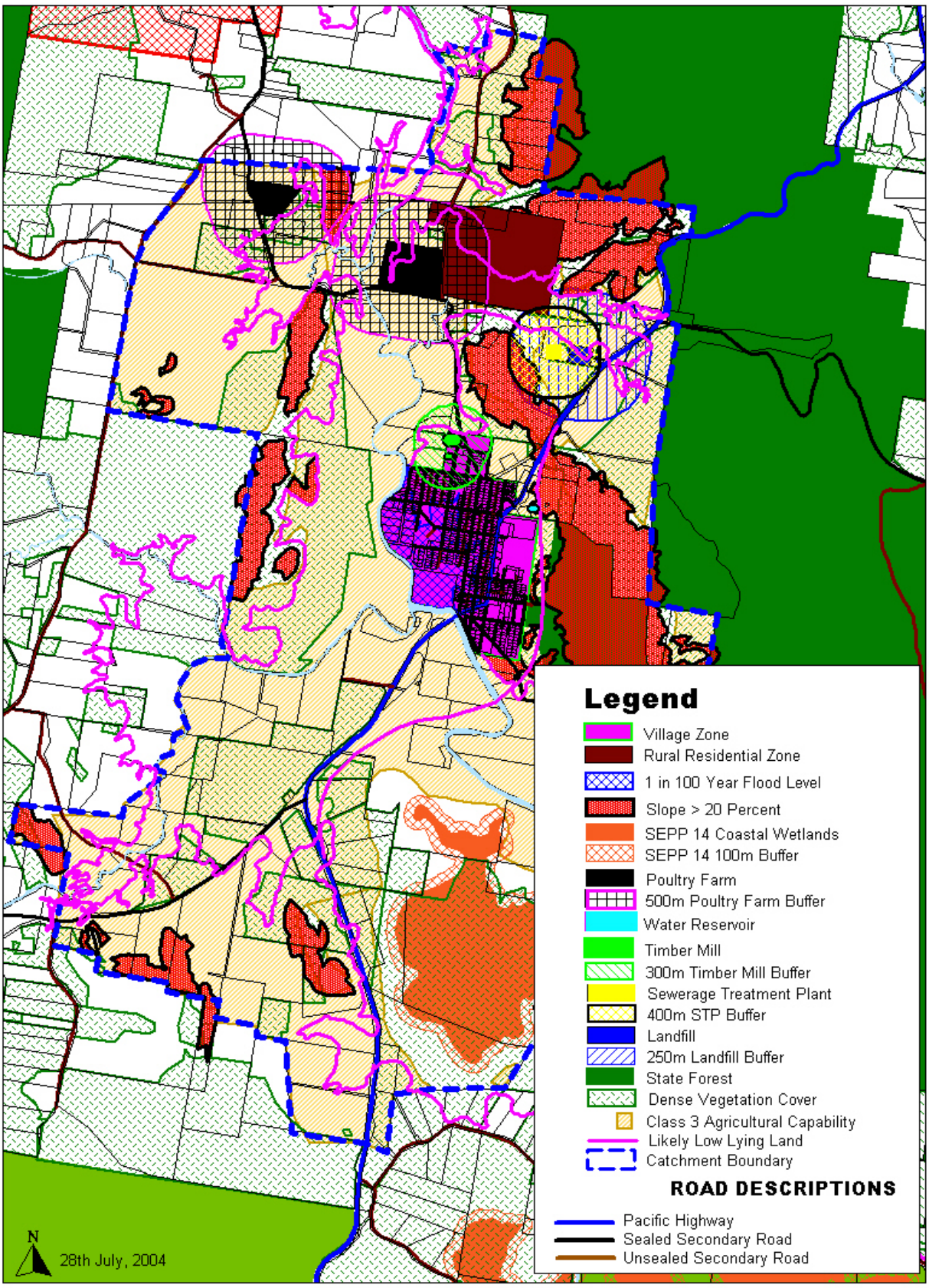
Map 3.3 : Nabiac Precincts : Minimbah Road



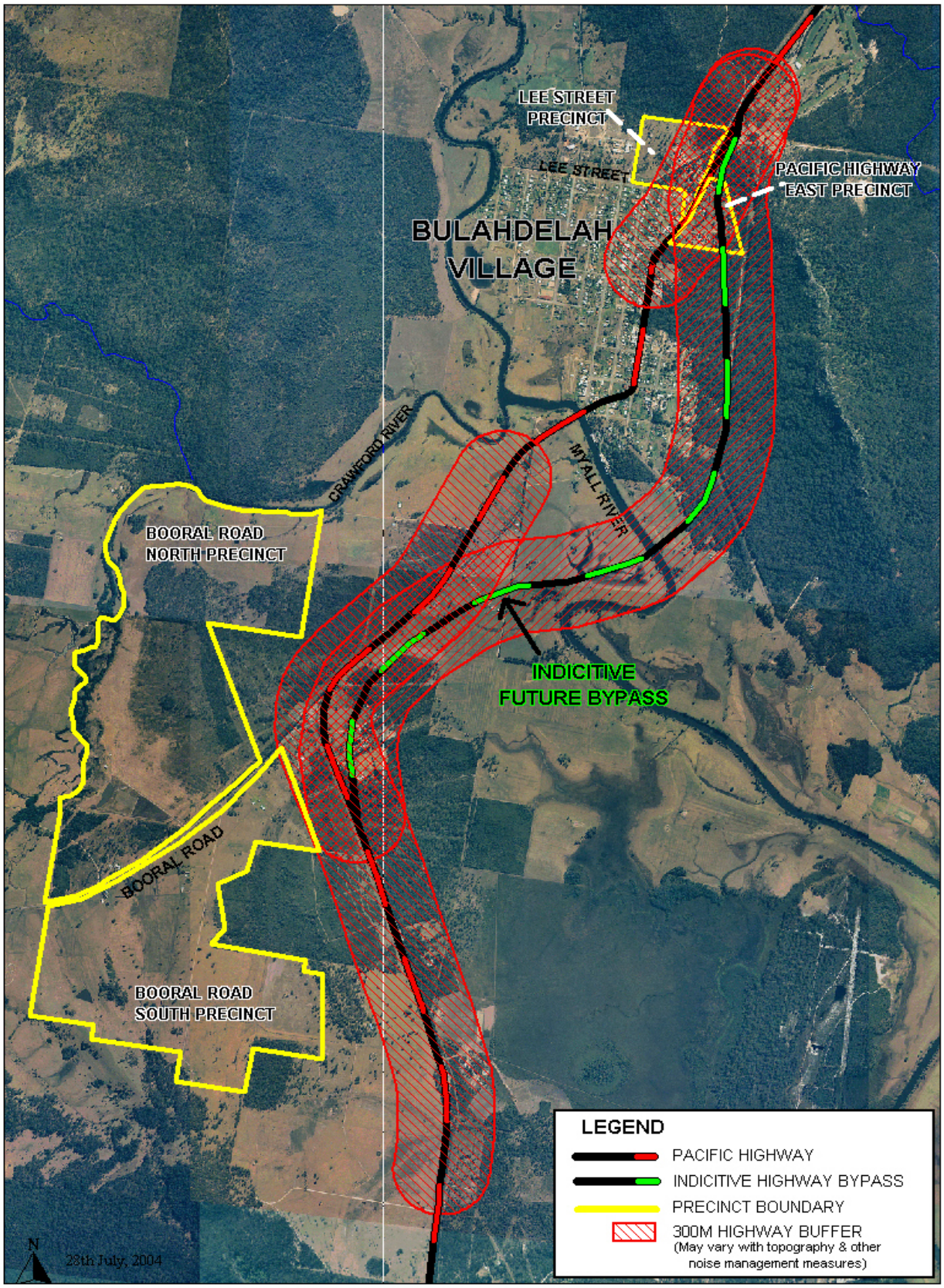
Map 3.4 : Nabiac Precincts : Carefree & Failford Road, Bullocky Way & Aquatic Road



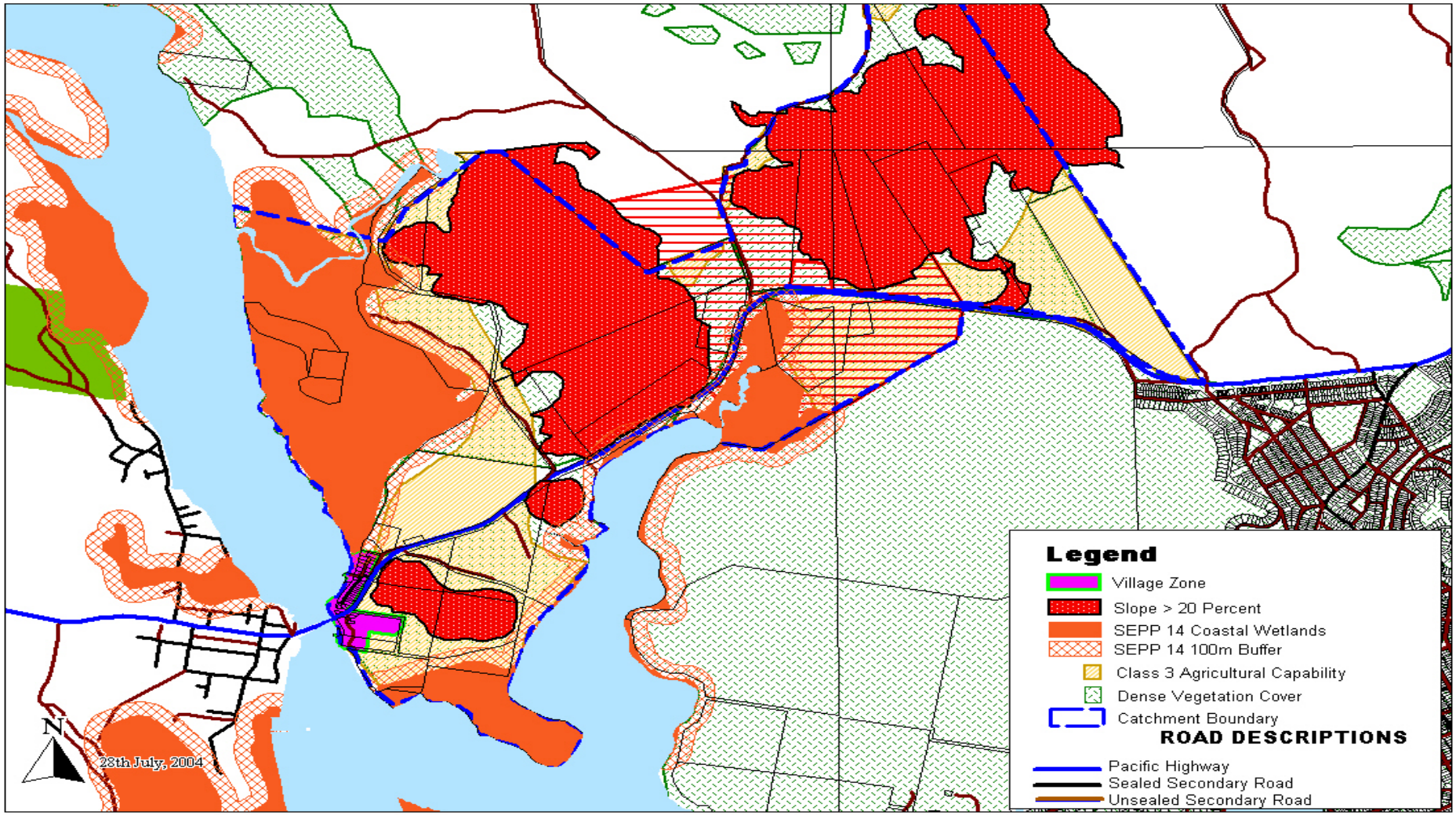
Map 3.5 : Bulahdelah Urban and Rural Residential Constraints



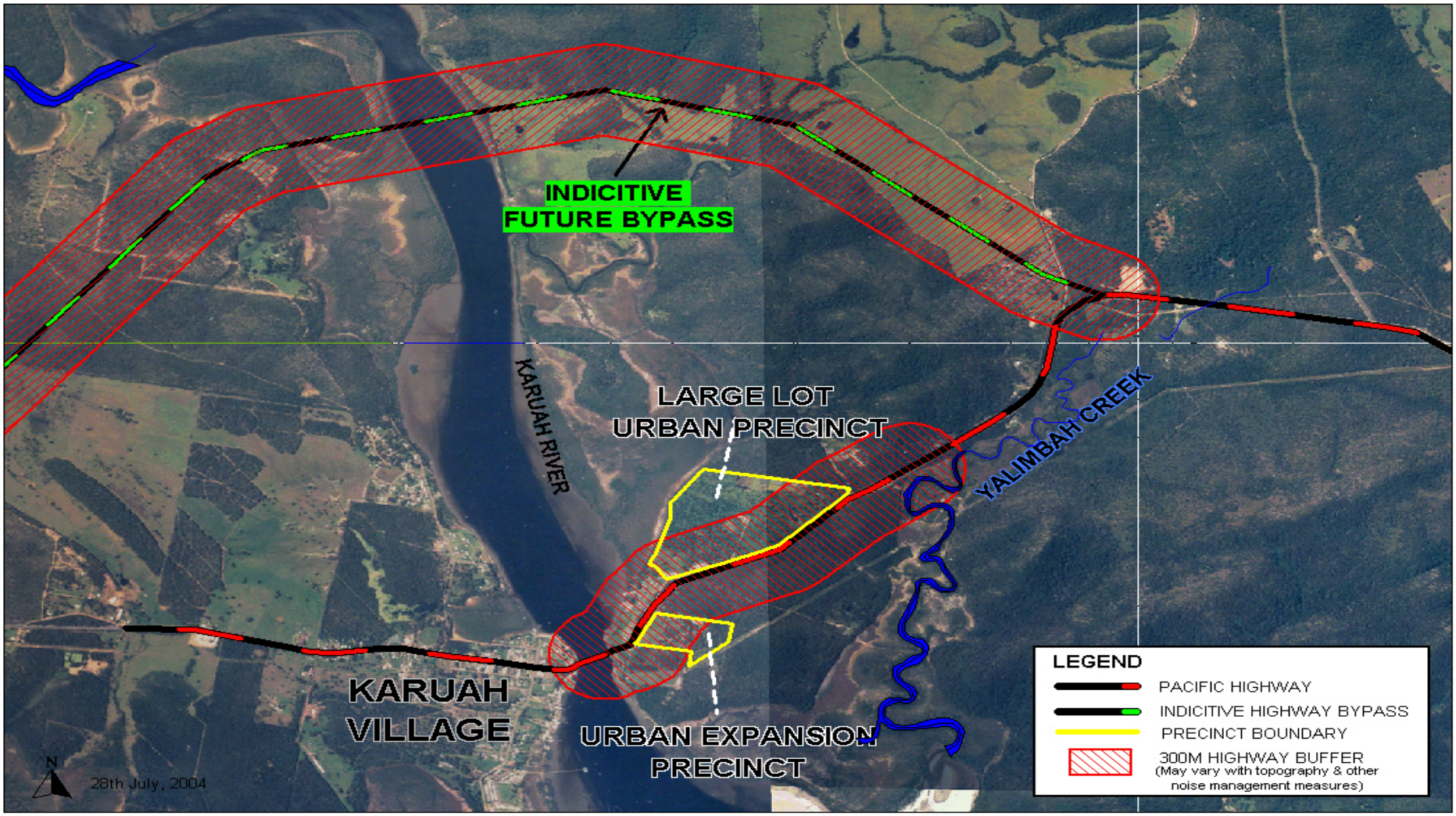
Map 3.6 : Bulahdelah Precincts : Booral Road North, Booral Road South, Lee Street & Pacific Highway East



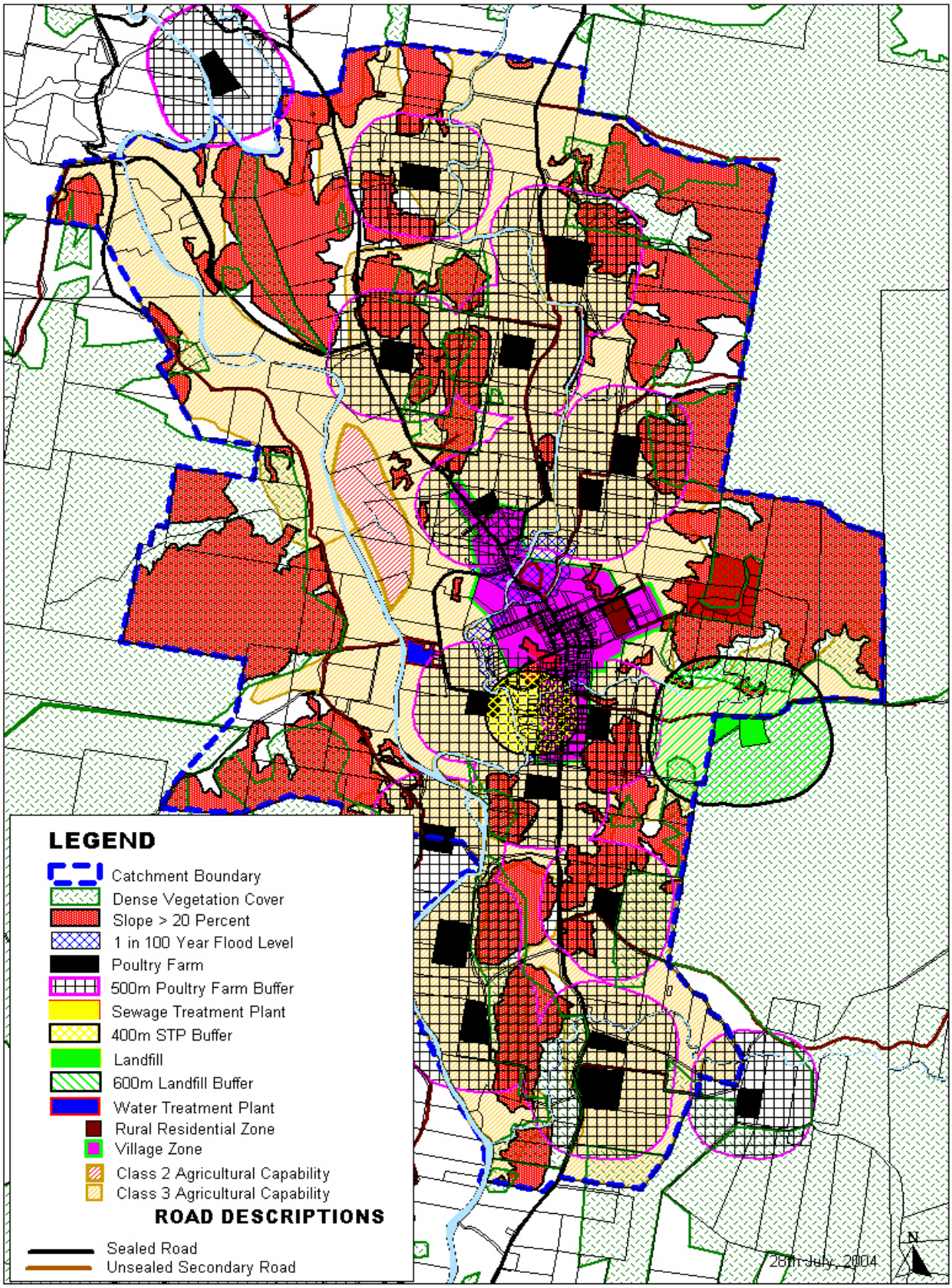
Map 3.7 : Karuah Urban and Rural Residential Constraints



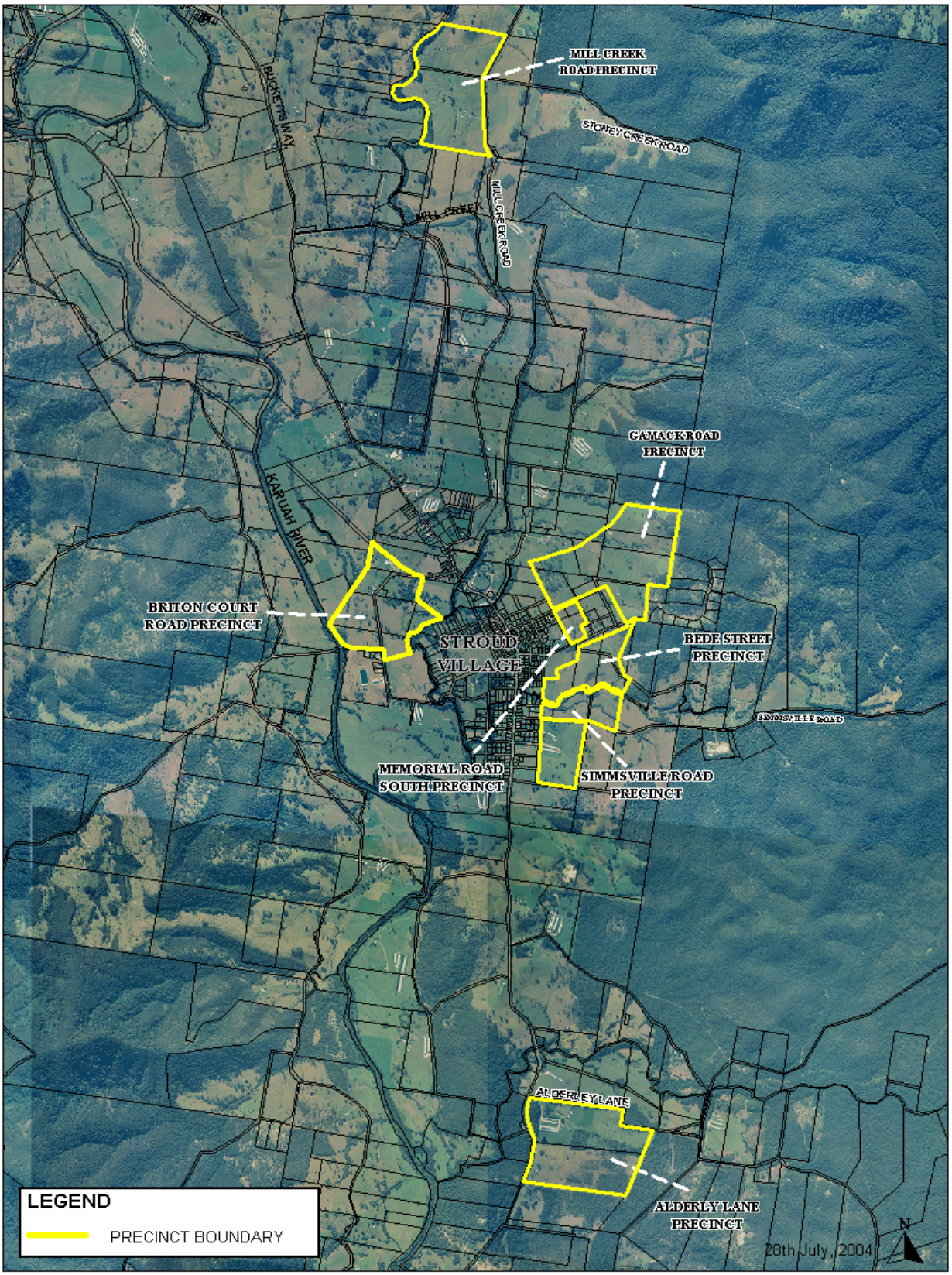
Map 3.8 : Karuah North Precincts : Pacific Highway Large Lot Urban & Urban Expansion



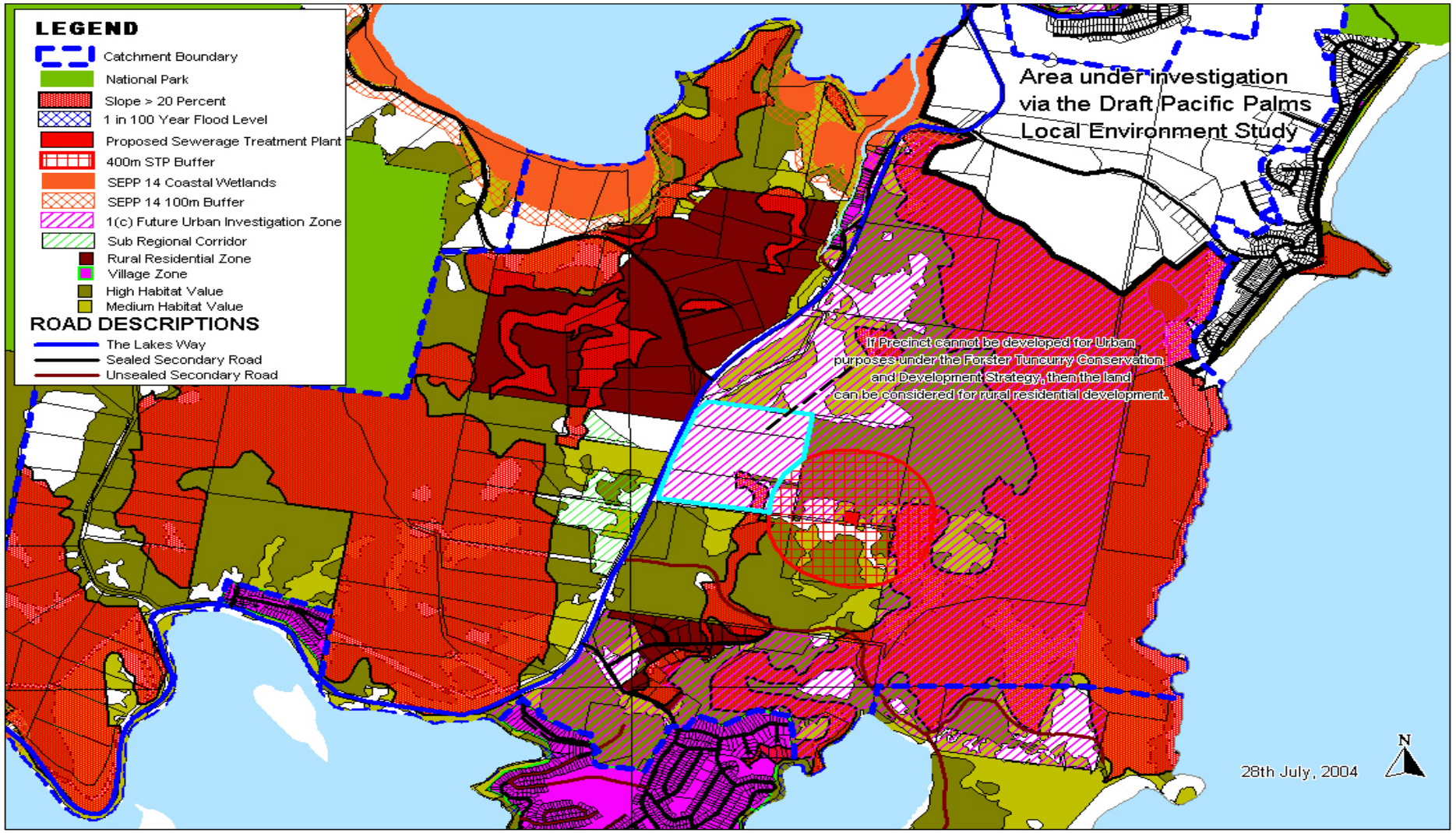
Map 3.9 : Stroud Urban and Rural Residential Constraints



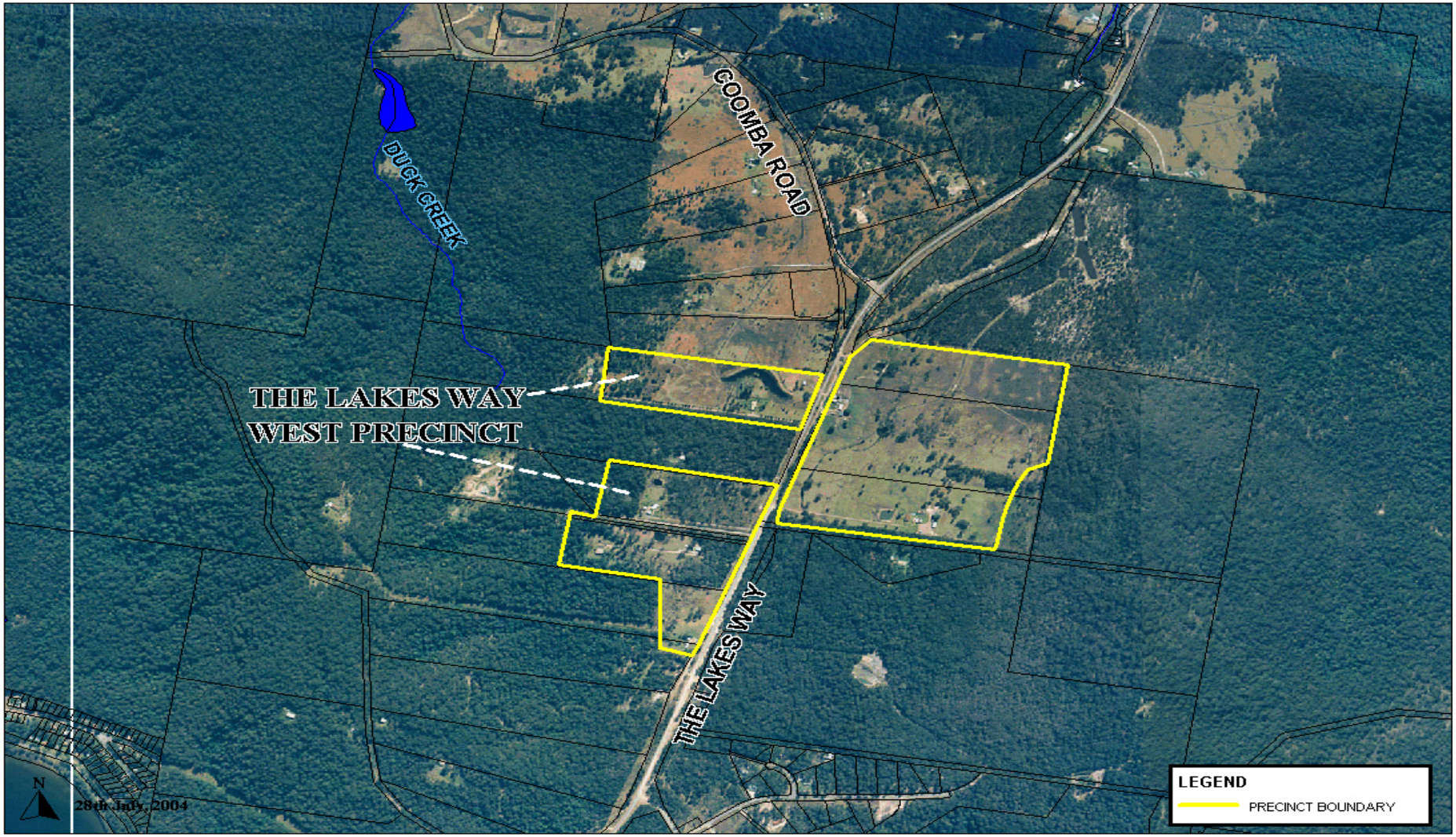
Map 4.0 : Stroud Precincts : Mill Creek Road, Bede Street, Briton Court Road, Gamack Street, Memorial Road South, Simmsville Road & Alderley Lane



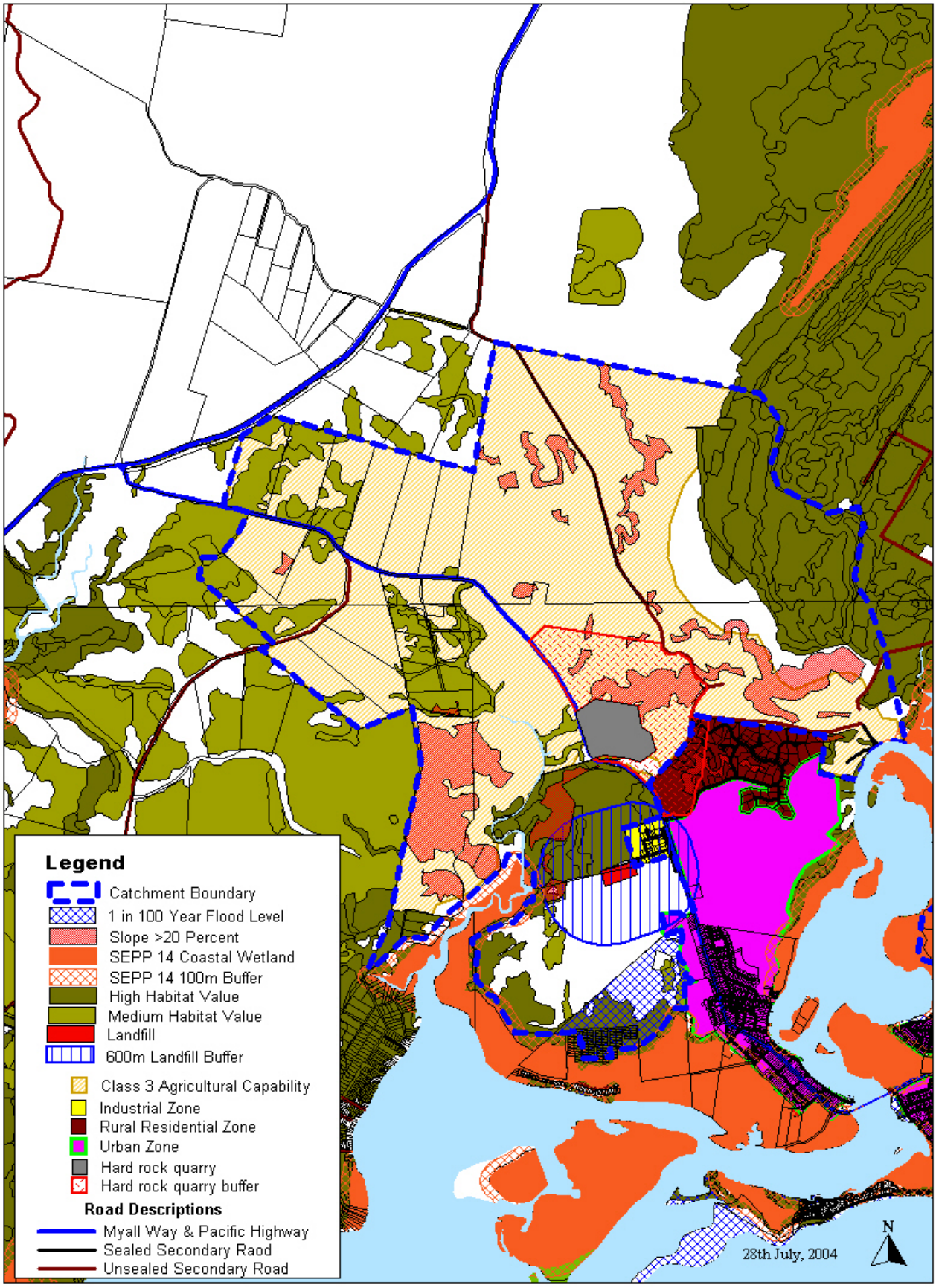
Map 4.1 : Pacific Palms Rural Residential Constraints



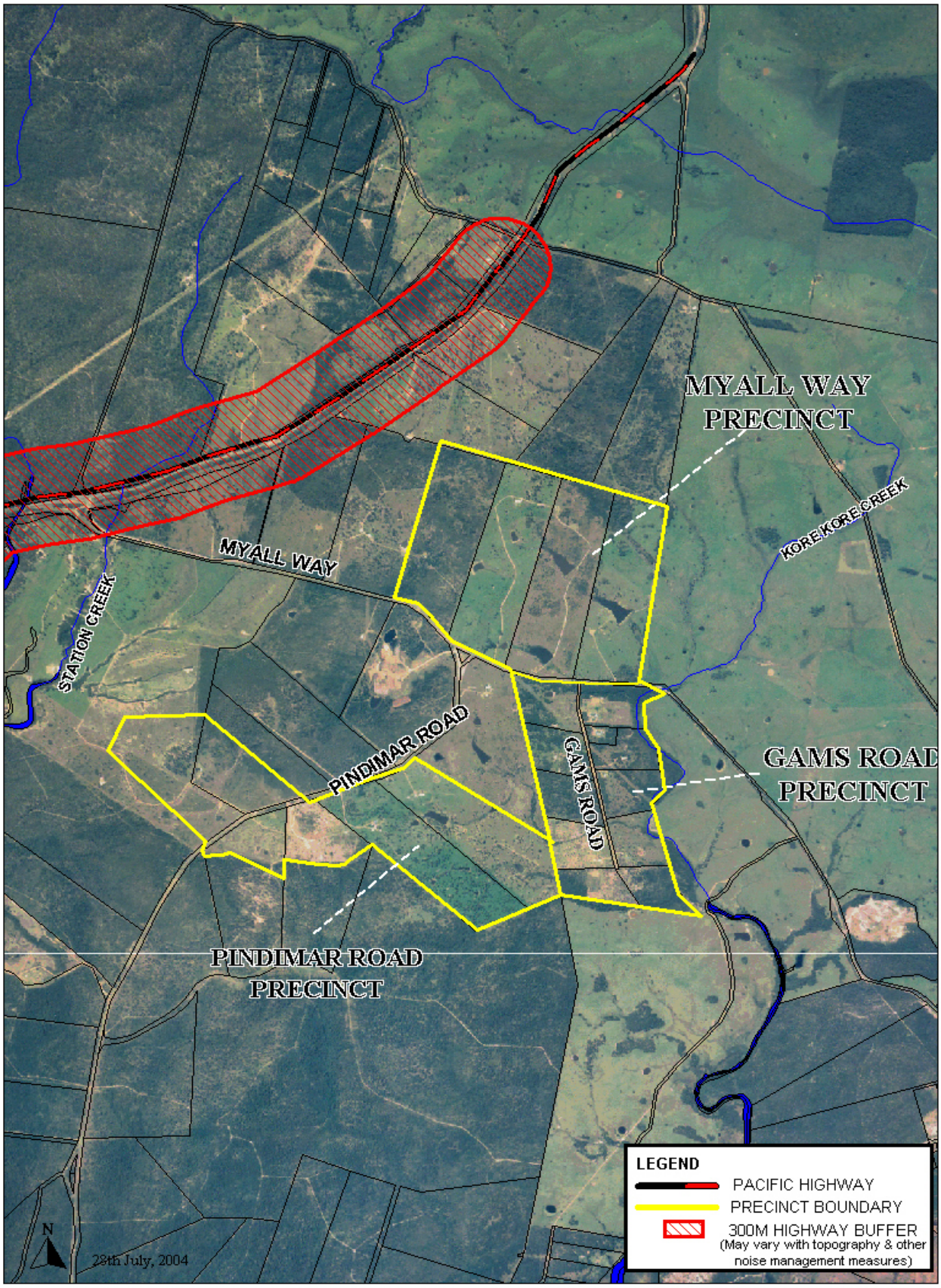
Map 4.2 : Pacific Palms Precinct : The Lakes Way West and The Lakes Way East



Map 4.3 : Tea Gardens Rural Residential Constraints



Map 4.4 : Tea Gardens Precincts : Myall Way, Pindimar Road & Gams Road



3.3.9. Separate Zones for Villages

The question has arisen as to when does a village zone no longer achieve the desired outcomes for the settlement and therefore needs to have separate urban zones applied.(These include residential, commercial, industrial, etc)

The answer is actually a simple one and is not necessarily dependent upon the size of the settlement. Urban zones fulfil the function of separating incompatible landuses and therefore once a settlement is beginning to experience landuse conflict, or when specific land within a settlement is desired for a particular type of development, the need for urban zones arise. Work done during the Strategy and issues that have arisen as a result (or independent of the process) have identified the following settlements as requiring urban zones rather than a 2 – Village zone:

- Nabiac
- Bulahdelah
- North Karuah

Nabiac

Nabiac has arisen as requiring separate urban zones as a result of the possible inclusion of land in a separate industrial zone along Showground Lane, within the 400m Sewerage Treatment Plant buffer. Rather than just creating a separate industrial zone in this location (assuming the land is found suitable for development) it would be more appropriate to consider separate urban zones across the entire township so that the zone appropriately reflects the landuse.

Bulahdelah

On 8 April 2003 Council resolved the following:

> *'Development Application 288/2003 for a six lot subdivision on Lot 2 DP 593969, Markwell Road, Bulahdelah be deferred subject to further discussions with the Applicant to ascertain a means by which a more explicit industrial zone can be limited to the site.'*

Although the above development application was subsequently approved by Council, the potential for conflict still exists. Once the subdivision is complete, it is likely that it will be utilised for residential development. This is what Council was trying to avoid in the above resolution, as the land is adjacent to industrial development that produces significant noise levels. The best solution to landuse conflict in the township is to implement specific urban zones that reflect the landuse of each area of the township.

As a starting point the land between Mahogany Street and Markwell Rd should become an industrial zone to reflect the current land uses. Mahogany Street should not be joined to Lee Street so that traffic to and from the industrial area has to use Red Gum Rd . In addition, a new Industrial area should be created in the vicinity of the Mid Coast Water Filtration Plant on the Pacific Highway.

The land to the east of Mahogany Street extending to the Highway is recommended for future urban. There are two issues that have to be overcome as part of the rezoning process. The first is the potential impact of the industrial uses on the western side of Mahogany Street. This can be ameliorated by ensuring that any residential development only has rear access to the street. The second is the current truck use in the middle of the area. This use should be encouraged to move to a more suitable location that is not in such close proximity to urban development.

North Karuah

The need for an urban (Low Density Residential) zone in North Karuah is different from the above two townships in that it is not a result of landuse conflict or the possible need to create a new industrial area. The reason that North Karuah requires separate zones is that this will enable the area to better integrate with the township of South Karuah and will compliment the objectives of Port Stephens Council for the town of Karuah. Port Stephens Council is attempting to reinforce the commercial and residential areas in the main township. It would not be appropriate for a separate commercial, industrial uses etc to establish in North Karuah under the current 2 – Village zone. All of these uses are permitted in the village zone. Also, as there is limited sewerage availability to the North Karuah area and as there is the ability to also sewer the rural residential zone, there is a need to limit future development in the proposed urban expansion area to single residential development on each new allotment and for this to also apply to land within the existing 2 – Village zone.

3.4. Preserving Rural Land

Rural land has 3 productive components. It is a source of food and fibre, a biodiversity resource and a place for people to live. These relate to the three components of ESD in the following graphic:

Source of Food and Fibre	☐	Economic
Biodiversity Resource	☐	Environment
Place to live	☐	Social Equity

There is a need to find the balance between all three of these components.

Agricultural land is a resource, it is not a commodity. It is a resource that is dwindling in the NSW as the productive rural land is converted to urban uses.

> *"Prime agricultural soils represent the highest level of agricultural productivity; they are uniquely suitable for intensive cultivation with no conservation hazards. It is extremely difficult to defend agricultural lands when their cash value can be multiplied tenfold by employment for relatively cheap housing. Yet the farm is the basic factory - the farmer is the country's best landscape gardener and maintenance workforce, the custodian of much scenic beauty. The market values of farmland do not reflect the long-term value or the irreplaceable nature of these living soils. An omnibus protection of all farmland is difficult to defend; but protection of the best soils in a metropolitan area would appear not only the sensible, but clearly desirable." (McHarg, 1992 p 60)*

Agriculture has been discussed in the Background Data Report and the Issues Paper and there is great scope for Great Lakes to capitalise on its resources to be used to support agriculture. Of particular relevance is the intensive forms of animal production, especially poultry and aquaculture.

One major issue with planning for the preservation of agricultural land is the size of the existing lots. The smaller the lot the more likely it is to be used for a residential use and when there is a mixture of rural residential and intensive agriculture this can lead to rural land use conflict. Where there are a number of lots which are larger than 10 ha it is easier to protect the resource for agricultural use because of the ability to locate any dwellings away from the intensive agriculture that is practiced on the adjoining land. There is also a higher probability that the land will be used for agriculture rather than rural residential.

It is therefore appropriate that these areas be maintained for future agricultural use. However, The major cost of maintaining this resource is the amount of rates that the owners have to pay. This is related to the value of the land and as this increases, so do the rates. Therefore there is a need for an incentive to be provided for these owners to maintain the land as a resource if the community feels that the resource should be maintained. This incentive could be in the way of reduced Council rates. It being noted that properties having a size of greater than 2 ha are eligible for rural rating. This matter will be discussed in detail in later sections.

It should be recognised that there is a desire to subdivide which is based on the farmers' belief that they should be permitted to subdivide the land. At no time has there been any indication from the Council or State Government that they would be able to subdivide some time in the future. It is a resource that can be utilised in the future if it is not subdivided. However, experience has shown that once land is subdivided, even into rural residential lots of 2 to 4 ha, the ability for it to be used for agricultural use is lost. It can be sold as an intact holding which can then be used as a rural residence if desired as an interim use, but the important thing to note is that the resource has been preserved.

There are three basic ways to recognise and preserve rural land:

- Land use zoning;
- Incentives / Monetary Compensation; and
- Education / Right to Farm Legislation.

Right to Farm legislation, basically, takes away the common law right to sue for nuisance caused by a farmer to a neighbouring rural residential use.

Land use zoning entails placing restrictions on the use of the land by way of statute. It is practised in Australia as the principal method for controlling the development of land. It is a system where land is designated for a principal use and uses that are considered not to be suitable or compatible with the principal use are prohibited. There is also the ability to require certain uses to submit an application for use of the land, which is then assessed having regard to a set of published Assessment criteria.

Incentives / Monetary compensation can take three forms: density bonuses for specific uses, purchase of development rights or transferable development rights. Incentives can include an increase in the density for a particular use in exchange for a conservation and / or enlargement of, for example, a wildlife linkage, as is done in Cessnock with tourist accommodation in the vineyards area. Monetary compensation takes two forms. Firstly, Purchase of Development Rights involves a farmer selling the development rights of the farm to a government or non-government organisation. In return a covenant is taken out over the land to ensure that the land is only used for agricultural purposes. The purchase of development rights can also be used to require soil and water cycle management to be undertaken on the property. The property is inspected at regular intervals to ensure that it is being used properly. Transfer of Development Rights occurs where land is declared to be in a preservation zone and is to be kept for agriculture. The development rights to this land can be purchased by developers who wish to gain an increase in the development potential of land declared to be in a development zone. Both of these methods exist in the United States. Of the two, Purchase of Development Rights is the more successful. Both are applicable to the Australian situation with the issues of Transfer of Development Rights already in existence for heritage sites in the City of Sydney. The development rights can be linked to an incentive to achieve a better environmental outcome.

Right to farm legislation basically allows farmers to have a right to continue farming as long as they are carrying out "good management practices" even if there is a loss of amenity for surrounding rural residential uses. It precludes surrounding rural residential dwellers from suing in the courts for nuisance caused to them by the farm noises, odours or dust. This means that the farmer has to have the right to override the environmental pollution legislation, particularly in relation to noise control. This is a good concept in theory but in practice is difficult to implement effectively as it does not provide a solution for both sides of the problem. The farmer is able to continue operating but the surrounding rural residential users have not solved their amenity issue.

Of these three, only land use zoning is practiced in NSW. Although, Tasmania has Right to Farm legislation, its effectiveness as a tool to preserve agricultural land has been questioned because it doesn't override the environmental pollution legislation. Western Australia has a system of mediation for rural land use conflict. Purchase of Development Rights and Tradeable Development rights are not used for the recognition and preservation of agricultural land in Australia. However, it is considered that there should be an investigation into their applicability or modification for the Australian political and social environments. It may be that one, two or a combination of them or a modified version is applicable, but without investigation it will not be known.

3.5. Designating Rural Land

As a basis for a future response in a new Local Environmental Plan, a methodology based on a combination of existing land use, lot size and physical features as well as proximity to services and infrastructure has been applied to the rural land. Consideration also needs to be given to the preservation of future land use opportunities.

The first step is to categorise the physical features into areas of similarities. Then designations are considered which bring policy considerations to bear on the land units.

3.5.1. Rural Land Units

Landuse surveys and lot size analyses have been used to identify land with common features as a foundation for future zoning. The landuse survey is used because it provides an overview of the existing landuse pattern within an area and therefore gives an indication of the predominant landuses which should be conserved. It is important to consider the size of the lots within an area because the existing fragmented lot patterns contribute to rural land use conflicts and the ability of the area to be protected from such rural landuse conflicts.

The methodology used identifies a series of land units as the basis for the land use designations. These land units are areas, which are contiguous, have similar characteristics and are generally homogenous in nature. These characteristics can be topographical, the abundance of vegetation, the similarities in landuses, land tenure, landscape character or the like. They have also been based on an understanding of the issues affecting the rural lands of Great Lakes as well as a review of planning policies of other local government areas. Comments from the community were also taken into consideration. Particularly those outlined in the community consultation report. In particular is the desire of the community for lifestyle and conservation of vegetation and the natural features and environmental qualities of the area. It is important to note that these units are based on the existing land uses and landforms and that no attempt has been made at this stage to consider the policy and planning provisions that relate to the land. This is the next step.

The methodology is described in Appendix 1.

There are 4 land units that have been identified for Great Lakes. They are as follows:

- *Agricultural Landscape*
- *Native Vegetation*
- *Rural Mixed Uses*
- *Village and Urban*

The land units are outlined on map 4.5 and are discussed below.

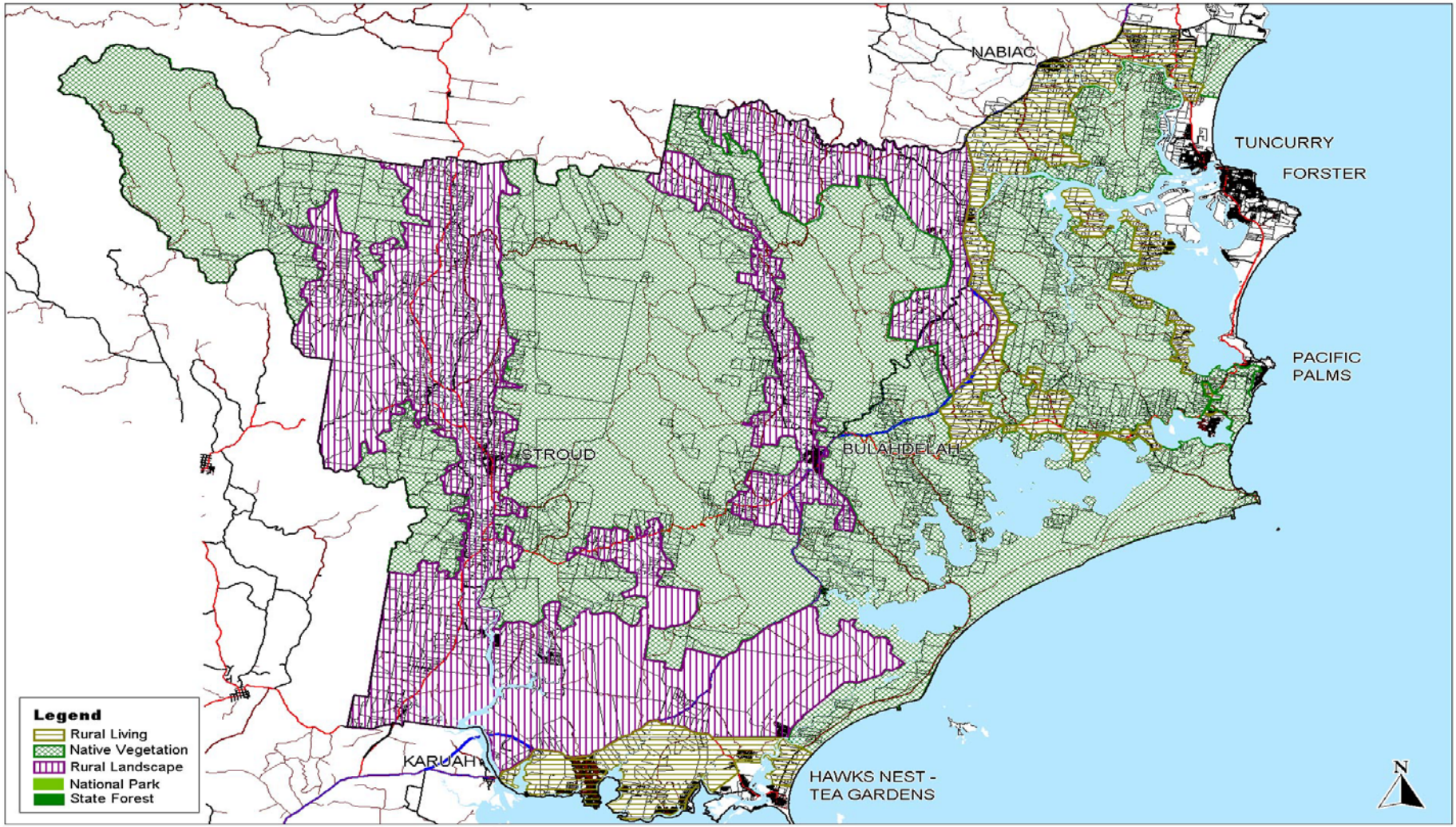
The *Agricultural Landscape* unit consists of the valleys of the Karuah, Myall and Wallamba rivers. The landscape character which is a mixture of natural and modified forms with some rural or rural related structures is the dominant element of this land unit. The land uses in these valleys are mostly extensive agriculture with scattered rural residential and intensive agriculture uses. There are other uses such as tourist related uses as well. There is a cluster of intensive agriculture (poultry) in the Karuah Valley from Allworth to Stroud Road and some intensive agriculture (aquaculture) along the Pacific Highway. The commonality of landuses therefore is a mixture which contributes to the landscape character of the valleys. Thus the land unit has been called Agricultural Landscape.

The *native vegetation* land unit consists of National Parks, State Forest and private land that is covered by native vegetation. These are areas where there is a significant amount of vegetation which also provides habitat and linkages for the fauna to move from one area to another. These habitat linkages can be seen in detail on map 4.6. (It should be noted that the mapping has been done by the National Parks and Wildlife Service on a broad scale and this affects its accuracy when considered at a property scale.)

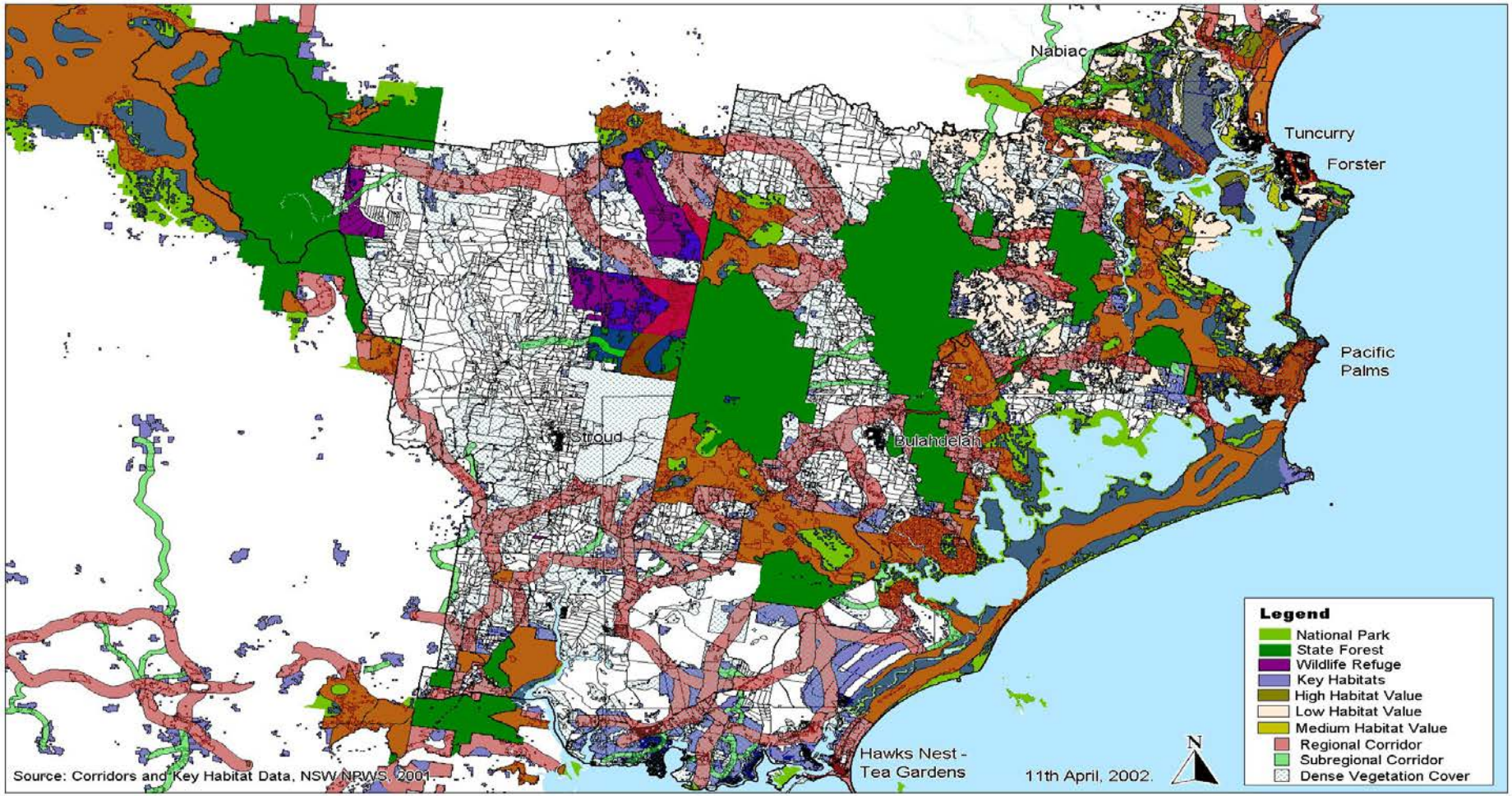
The *Rural Mixed Uses* land unit is to be found to the east of the Pacific Highway in areas subject to greater influence from Forster/Tuncurry and Hawks nest/Tea Gardens and is characterised by the mixture of uses and landforms and varying lot sizes. However, the dominant land use is for residential with the landowner having an off farm income and not relying on the land as the main income source. The proximity to the larger coastal towns and the coast itself is also contributes to the high proportion of rural residential as is the generally lower class of agricultural land.

The *Village and Urban* land unit includes all of the villages and urban areas, including those areas with a lot size of less than 1 ha and commonly with a lot size of 4,000 to 5,000 m^2.

Map 4.5 : Rural Land Units



Map 4.6 : Key Habitat & Linkages
Source: National Parks and Wildlife Service



3.5.2. Rural Land Designations

The land units can be translated into future zones. However, as this is a strategy and does not zone the land, the term land use designation has been used to describe them.

The utilisation of landuse zoning to segregate landuses is a commonly used practice in New South Wales. In rural areas however there has generally been one or 2 generic type zones that have been called a "rural" zone. One of the major reasons for zoning an area is to preclude or regulate specific uses that are considered to be not in keeping with the general amenity of the area.

Zone names such as residential, commercial and industrial are used to identify a list of specific land uses that are permissible in a particular location. Rural zones are often less specific. The term rural describes a character, not a use. It is therefore appropriate to use a zone name that provides an indication of the uses that are carried out within that area.

Zoning can also be used to identify the major objective for any future as well as existing development in an area for example, if an area is of high conservation status then a zone name outlining this is also appropriate.

A sieve methodology has been used to determine the land use designations. It is described in appendix 1.

Indicative Rural Land Designations are shown on Map 4.7. This map does not show rural residential and urban designation.

The designations are as follows:

- Agricultural Landscape
- Rural Fringe
- Rural Mixed Uses
- Rural Lifestyle
- Villages
- National Parks and Nature Reserves
- State Forest

Table 3.8: Land use zones

Proposed Designations	Draft Strategy Designations	Minimum Lot Size	Effluent Disposal
Large Lot Urban	N/A	5,000m²	Reticulated
Rural Fringe	Rural Living Small Lots	1ha	Reticulated
Rural Lifestyle	Rural Lifestyle	2ha	On-site
Rural Mixed Uses	Rural Living	40ha	On-site
Agricultural Landscape	Rural Landscape	40ha	On-site

The Rural Residential designations are those that are on maps 3.3, 3.4, 3.6, 4.0, 4.2, and 4.4. It should be noted that the current Environmental Protection zones are to remain and will be reviewed as part of the Council's Native Vegetation and Biodiversity Framework.

There are two types of water supply catchments in the LGA which should be protected from adverse impact from development. This can be done by way of hatching and specific clauses in any planning instrument. The two types of water supply catchments are surface water for extraction from rivers for Bulahdelah, Stroud and Stroud Road and groundwater extraction for Tea Gardens. These are mapped in the Background Data Report as Map 13.

It should be noted that the Council has recently adopted a Conservation Framework which provides strategies for the conservation of native vegetation. Therefore, this strategy does not deal with it as a designation.

Agricultural Landscape

This is an area that has a mixture of land uses and forms which create a distinct rural character which forms part of the tourism attraction of the area as well as a reason for people to move into Great Lakes. Photo 3.5 shows a typical scene from the Agricultural Landscape designation.

The mixture of rural uses is to be retained with controls placed on the location of houses so that they do not create a conflict by being too close to the boundaries, thereby creating rural land use conflict. Agriculture uses are to be encouraged as are rural tourism and accommodation.

Lot sizes are to remain as 40 hectares.

Photo 3.5: Agricultural Landscape Designation

A set of desired future character statements (which can ultimately become the zone objectives) should be prepared for the designation and it should include the following matters:

- Preservation of the open rural landscape and its cultural heritage values;
- Maintenance of large holdings;
- Provision for both intensive and extensive forms of agriculture;
- Buildings to blend into the landscape;
- Protection and improvement of water quality;
- Preservation and enhancement of native vegetation, including habitat linkages;
- Protection of the amenity of existing residents; and
- Screening from public places.

The uses that would be permitted without consent, require consent and which would be prohibited for this designation would be those that currently apply to the Rural 1(a) zone. There will be some changes to land use controls that prescribe whether or not these require consent or don't require consent. For example intensive plant growing, which currently does not require consent will require consent when a new LEP is prepared to give effect to the Rural Living Strategy. This matter will be dealt with in more detail once the public comment has been received and detailed consideration given to the preparation of the LEP.

Controls should also be placed on the height of dwellings as well as the impact they have on the landscape by way of location and appearance. For example, they should be located below ridgelines and be of colours that blend in with the surrounding environment.

Consideration should be given to placing controls on the clearing of land and preservation of areas of known biodiversity habitat and important habitat linkages. This is outlined in more detail in Council's Native Vegetation and Biodiversity Planning Framework.

Rural Mixed Uses

The Rural Mixed Uses designation is to the east of the Pacific Highway. It is similar to the Agricultural Landscape Designation, but has been included to differentiate between the two distinctly different parts of the LGA – the land to the east and the land to the west of the Pacific Highway. Photo 3.6 shows the typical landscape and features of the designation.

Photo 3.6: Rural Mixed Uses Designation

The mixture of rural uses is to be retained with controls placed on the location of houses so that they do not create a conflict by being too close to the boundaries, thereby creating rural land use conflict. Rural tourism and accommodation uses are to be encouraged. Agriculture, particularly intensive forms of it are not to be encouraged as they have the potential to cause land use conflict with the predominately rural residential uses in the area. These rural residential uses are on a variety of lot sizes and this variety is to be maintained as it adds to the landscape character of the area.

Lot sizes are to remain as 40 hectares although Council will investigate whether to reduce the lot size.

Land within the Rural Mixed Uses designation is often more fragmented than land included within the Agricultural Landscape designation and does not always have a distinctive rural character. Land within the Rural Mixed Uses designation is more accessible to urban centres and is therefore subject to greater influence from these towns. For these reasons, Council has decided to investigate whether it may be appropriate to lower the 40ha dwelling and subdivision standards under certain circumstances.

There are some areas that should be excluded because of inadequate access, such as along Willow Point Rd and which should retain more of rural landscape.

Reduction of 40ha Minimum for Dwellings in the Rural Mixed Uses Designation

At present there is a 40ha minimum standard (Clause 19 of Great Lakes LEP 1996) for the erection of a dwelling house on 1(a) and 7(b) zoned land. There are two exceptions; where the lot is either an Existing Holding (defined under this Clause) or was approved by a Council approved subdivision.

The Rural Mixed Uses Designation is proposed to replace the 1(a) – Rural zone in LEP 1996 in areas subject to greater influence from the major towns. The issue is whether the 40ha standard for the erection of a dwelling should be reduced for this designation in recognition of the already fragmented nature of the land and the proximity of land to an urban settlement.

The dwelling standard cannot be totally withdrawn due to the number of additional dwelling entitlements that would be created. Such action would dramatically alter the landscape and would also place an unacceptable burden on Council's resources. It may also cause unacceptable environmental impacts. If a reduction in the 40ha dwelling standard were deemed appropriate, it would be necessary to strike a balance between the number of new dwellings that could be created and the environmental, economic and social impact of these.

The cumulative impact on the environment needs to be investigated. This will involve investigating the location of these lots to see whether there would be an unacceptable impact on water quality from additional effluent disposal systems and other negative impacts associated with development.

In regards to equity, the following issues arise:

- Should this only be investigated for the Rural Mixed Uses Designation?
- Is it fair on people below a new set minimum to still have no dwelling entitlements when others will have benefited from the reduction?
- Is it fair on people in an area possibly covered in the future by the development/conservation offsets to have to enter into a conservation agreement to gain additional entitlements when others are simply given one by reducing the lot size for erection of a dwelling.

Due to the complex environmental and equity issues this issue should be addressed as a separate action stemming from the strategy

If Council considers it appropriate in the future to lower the dwelling minimum lot size for the erection of a dwelling, it would also be appropriate to investigate whether it is also appropriate to lower the subdivision minimum. Some of the above equity issues may be resolved if a new dwelling standard matches a new subdivision standard.

Reducing the lot size for subdivision and reducing the minimum size for the erection of dwellings, under appropriate circumstances and in suitable locations, may be one way of providing for additional rural living opportunities.

Reduction of Minimum Subdivision Standard in Rural Mixed Uses Designation

There is currently a 40ha minimum lot size for subdivision in the 1(a) – Rural zone under Great Lakes Local Environmental Plan 1996. At this stage it is intended to continue to apply the standard to the proposed Agricultural Landscape designation. This is appropriate considering the amount of land, the location of land and the general agricultural and scenic quality of the land in this designation.

The issue that remains is whether the same subdivision minimum should also apply to the Rural Mixed Uses Designation. In light of the already fragmented nature of the land within this designation and the proximity of the land to an urban settlement, Council questioned whether a reduction in the minimum lot size to 30ha or 20ha would be appropriate.

There are similar equity and environmental impact considerations for reducing the subdivision and dwelling standards. Further investigations are required into these before a decision can be made as to whether it is appropriate to alter these standards for the Rural Mixed Uses Designation. This can be identified as an action stemming from the strategy. Particular attention will have to be given to the cumulative environmental impacts of a reduced lot size for the erection and possible number of lots from a development offset/bonus scheme.

A set of desired future character statements (which can ultimately become the zone objectives) should be prepared for the Rural Mixed Uses designation and it should include the following matters:

- Preservation of the open rural landscape and its cultural heritage values;
- Maintenance of large holdings;
- Buildings to blend into the landscape by having 'earthy' colours and low scale buildings;
- Protection and improvement of water quality;
- Preservation and enhancement of native vegetation, including habitat linkages;
- Protection of the amenity of existing residents; and
- Screening from public places.

The uses that would be permitted without consent, require consent and which would be prohibited for this designation would be those that currently apply to the Rural 1(a) zone. However, due to the largely rural residential nature of the area, both intensive plant growing and intensive animal establishments should be prohibited. There should also be more reliance put on the protection of the natural assets of the area. This matter will be dealt with in more detail once the public comment has been received and detailed consideration given to the preparation of the LEP.

Controls should also be placed on the height of dwellings as well as the impact they have on the landscape by way of location and appearance. For example, they should be located below ridgelines and be of colours that blend in with the surrounding environment.

Consideration should be given to placing controls on the clearing of land and preservation of areas of known biodiversity habitat and important habitat linkages. This is outlined in more detail in Council's Native Vegetation and Biodiversity Planning Framework.

Rural Fringe

The Rural Fringe designation is for the land that is to be subdivided for rural residential development under the methodology and using the Assessment and management criteria outlined in section 3.3.

The rationale for identifying each area has been described in section 3.3.3.

It will be ostensibly a residential area with a minimum lot size of 1 ha. It will be set in the rural landscape. Intensive forms of agriculture will be prohibited.

A set of desired future character statements (which will ultimately become the zone objectives) should be prepared for the designation and it should include the following matters:

- Protection of the amenity of existing residents;
- Uses to be compatible with residential living areas;
- Buildings to blend into the landscape;
- Protection and improvement of water quality;
- Preservation and enhancement of native vegetation, including habitat linkages;
- Prohibit intensive agricultural pursuits; and
- Screening from public places.

The uses that would be permitted without consent, require consent and which would be prohibited for this designation would be those that currently apply to the Rural Residential 1(d1) zone.

Consideration should be given to placing controls on the clearing of land and preservation of areas of known biodiversity habitat and important habitat linkages. This is outlined in more detail in Council's Native Vegetation and Biodiversity Planning Framework.

Detailed Local Environmental Studies (or appropriate investigations) which will investigate the issues associated with development will have to be prepared to address such matters as:

- Traffic generation and the standard of the road surface for the anticipated increase in vehicular movements.

- Ecological investigations to identify the presence of any species listed under the provisions of the Threatened Species Conservation Act. If a wildlife linkage passes through land within the Rural Mixed Uses Designation, or the land has been identified as having key habitat (both as identified by NPWS) or high habitat land as identified by Council, then the areas covered by these will need to be accurately mapped and conserved. Re-establishment of wildlife linkages may be required across previously cleared areas. Community Title subdivision may be necessary to achieve on-going management of these areas.

- Drainage investigations to identify the 1% AEP flood and drainage issues.

- Bushfire risk. An Assessment will have to be carried out of the potential bushfire risk to the land. Reference should be made to the recently published *Planning for Bushfire Protection* document.

- Effluent Disposal Study to identify the most efficient means of disposing of domestic effluent on the site. This will need to be done in accordance with the NSW Government *Environment and Health Protection Guidelines – On-site Effluent Management for Single Households*, published in 1998.

- Scenic and Landscape analysis of the area to identify the important landscape features.

- The staging of the release of land to ensure that it occurs in a timely and efficient manner.

- Protection and management of riparian zones.

Council may consider land other than that identified in the Rural Fringe Designations (for rezoning for Rural Fringe), though the land is still required to be within the rural residential catchment boundaries of Nabiac/Tuncurry, Bulahdelah, Tea Gardens, North Karuah or Stroud. Any such land under consideration will also need to comply with the above.

The specific requirements that would have to be considered with the development applications are as follows:

- Fire Hazard –the potential lot yield may need to be reduced if concerns over fire hazard cannot be overcome. Subdivision may have to be undertaken by Community Title if on-going bushfire management required.

- Presence of threatened species (or threatened species habitat) under the Threatened Species Conservation Act 1995 or the Commonwealth Environmental Protection & Biodiversity Conservation Act 1999. An 8 part test under the *Environmental Planning & Assessment Act 1979* may be required (fauna and flora studies conducted as part of the rezoning should be able to be utilised for this purpose).

- Need for habitat enhancement and on-going management of vegetation, riparian zones etc. No lots will be permitted to fragment areas of high value habitat. Options such as Community Title subdivision may be required for this.

- Wildlife Linkages - Re-establishment of wildlife linkages may be required across previously cleared areas. Community Title subdivision may be necessary to achieve on-going management of these areas.

- The ability of the proposed lot layout to adequately address on-site effluent disposal will have to be examined and may affect the minimum lot size.

- Proximity to waterways – sufficient buffer area will need to be provided between waterways/creeks and the area to be developed. Multiple lot access to riparian zones should be avoided, as should multiple water crossing for access purposes.

- Disturbance of Acid Sulphate Soils is to be avoided, with remediation necessary if disturbed.

- Solar access and wind – preferred locations have sufficient solar access and natural buffering from predominant winds.

- The scenic/visual impact of the proposed lot layout will need to be considered. Of particular interest will be the need to screen any development from nearby public roads/highways (vegetation screening is the most appropriate method).

- The potential for highway/road noise to impact upon the amenity of future Rural Fringe residents will need to be investigated, with remediation works outlined if noise found to be an issue. This may involve negotiations with the RTA or Council, with remediation including setbacks, tree planting, mounding etc.

- Habitat and wildlife linkage enhancement may be a condition of consent and may involve substantial plantings of trees/vegetation in appropriate locations.

- Rehabilitation and protection of riparian zones where proposed lot boundaries will extend onto or across these areas'.

Once these investigations have been carried out, the land can be considered for rezoning and a draft LEP prepared in conjunction with a DCP.

Rural Lifestyle

This is similar to the Rural Fringe designation and also requires investigation and rezoning with the same process and matters to be considered.

The Local Environmental Study will have to consider the staging of the release of land to ensure that it occurs in a timely and efficient manner.

Once these investigations have been carried out, the land can be considered for rezoning and a draft LEP prepared in conjunction with a DCP.

It will be ostensibly a residential use as opposed to agricultural area with a minimum lot size of 2 ha. It will be set in the rural landscape. Intensive forms of agriculture will be prohibited. This minimum has been based on the desire not to create a higher density as well as the need to ensure that the landscape character and biodiversity issues are considered.

A set of desired future character statements (which will ultimately become the zone objectives) should be prepared for the designation and it should include the following matters:

- Protection of the amenity of existing residents;
- Create lots primarily for living purposes, as opposed to rural purposes, in more of a rural setting';
- Uses to be compatible with residential living areas;
- Buildings to blend into the landscape;
- Protection and improvement of water quality;
- Preservation and enhancement of native vegetation, including habitat linkages;
- Prohibit intensive agricultural pursuits; and
- Screening from public places.

The uses that would be permitted without consent, require consent and which would be prohibited for this designation would be those that currently apply to the Rural Residential 1(d1) zone. Consideration should be given to placing controls on the clearing of land and preservation of areas of known biodiversity habitat and important habitat linkages.

Large Lot Urban

Large lot urban is the type of development that includes existing and proposed subdivisions of land between 5,000m² and one hectare. These subdivisions are commonly in an 'estate' and, although the lots are large by urban standards, they resemble an urban form and streetscape. They should also adjoin or be closer to urban areas. The area should be connected to reticulated water and sewerage, because the size of the lots does not, generally, support on-site effluent disposal. The urban nature of the area also means that it should be provided with a reticulated water supply as well. The current 1(d1) zone should be altered to become 2(l) Large Lot Residential.

This will provide for a clear distinction between residential and rural residential designations. The existence of the current 1(d1) zone covering Highlands Estate at Failford goes against the idea of restricting this form of development to areas adjoining an urban area. In light of the fact that the Strategy cannot reverse any decision made in the past and the fact that Highlands Estate is in an area characterised by housing rather than farmland, more of this type of development could be considered in this locality.

Hence, large lot urban subdivisions should only be considered on the immediate outskirts of Service Centres identified in the draft Strategy or in the immediate vicinity of an existing subdivision with the same minimum lot size.

A set of desired future character statements (which will ultimately become the zone objectives) should be prepared for the designation and it should include the following matters:

- Provide for low density detached housing
- Protection of the amenity of existing residents;
- Uses to be compatible with residential living areas;
- Buildings to blend into the landscape;
- Protection and improvement of water quality;
- Preservation and enhancement of native vegetation, including habitat linkages;
- Prohibit intensive agricultural pursuits; and
- Screening from public places.

The uses that would be permitted without consent, require consent and which would be prohibited for this designation would be those that currently apply to the Residential 2(a) Low Density Residential Zone.

Village

There are a number of villages that exist within the study area which are zoned as such. They each have a special character which needs to be preserved. The designation of them as village will help to preserve this.

A set of desired future character statements (which will ultimately become the zone objectives) should be prepared for the designation and it should include the following matters:

- Retain rural village character;
- Ensure that new dwellings respect the character of surrounding dwellings; and
- Ensure new residential development has regard to the scale and form of existing development.

The uses that would be permitted without consent, require consent and which would be prohibited for this designation would be those that currently apply to the Residential 2 Village Zone.

National Parks and Nature Reserves

This designation would cover the existing areas that are zoned as National Parks under the provisions of the current Great Lakes LEP.

The desired future character statements would mirror the current zone objectives as would the uses that are permitted and prohibited.

State Forest

This designation would cover the existing areas that are zoned as Rural 1(f) Forestry under the provisions of the current Great Lakes LEP.

The desired future character statements would mirror the current zone objectives, as would the uses that are permitted and prohibited.

Development Performance Standards

A detailed set of development performance standards should be formulated to address the development of the land. These are to be based on work done for the Byron Rural Settlement Strategy and cover the following maters:

- *Waste water treatment and management of effluent.* This is needed to ensure that domestic onsite effluent systems operate in a manner that protects public health and achieves ecologically sustainable environmental standards for air, land and water. They should include guidelines which address the layout design, information requirements, site constraints and limitations as well as general matters related to the operation of the systems.

- *Environmental Buffers, repair and enhancement*. There is an opportunity to use the development of Rural Mixed Uses and rural lifestyle areas to repair and enhance the land's natural values. This can include the provision and or enhancement of habitat linkages and vegetative buffers between living areas and natural systems. Guidelines would be prepared to cover such matters as environmental buffers, environmental repair and enhancement and location of building envelopes in relation to these areas.

- *Aesthetic Design, Scenic Character and energy efficiency of dwellings and buildings*. Dwellings, outbuildings and associated accessways can have a major landscape impact if they are located in prominent areas or are of bright colours. The buildings should complement and enhance the rural and natural scenery of the LGA. Guidelines should be prepared which deal with the design of buildings, their colours, impact on ridgelines, energy efficiency and impact on vegetation and potential bushfire risk.

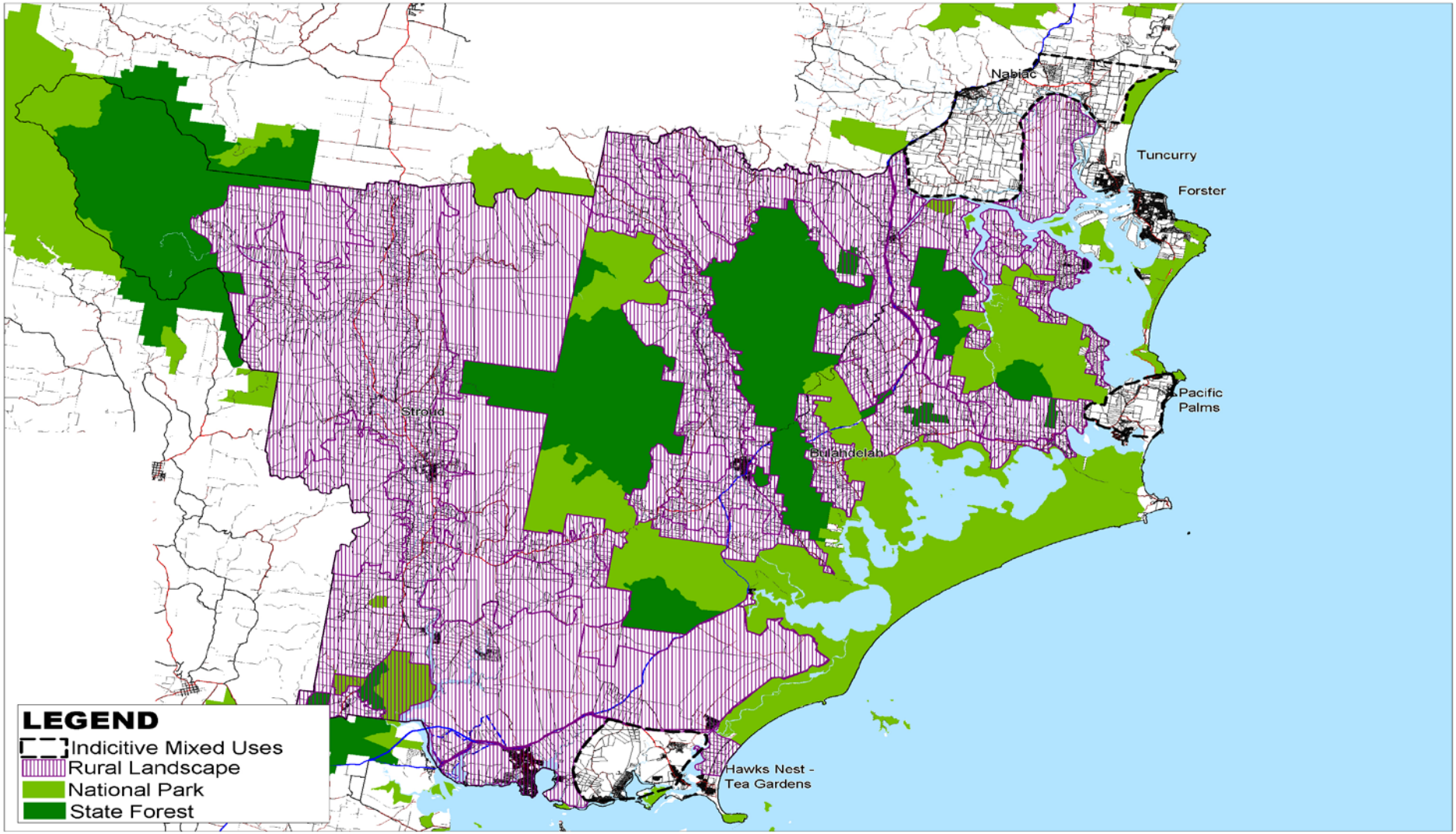
- *Water Quality and Riparian Management*. Water is a limited resource in NSW and it is more of an issue when it is not supplied in a reticulated form to the dwellings. The quality of the surrounding waterways can be affected by inappropriate location of buildings and effluent disposal areas. It can also be impacted on by clearing of riparian vegetation. There is a need therefore to ensure that proper management of the land occurs so that this is not the case. A detailed water management plan should be prepared for all dwelling sites that considers the water cycle of the site and mitigates against the degradation of the surrounding creeks and rivers. This should consider the location of the building and its effluent disposal area to ensure that it does not lead to loss of riparian vegetation.

- *Bushfire Hazard Mitigation.* Bushfire hazard is an issue that has to be considered when developing rural land. The Rural Fire Service have recently published a new set of guidelines titled *Planning for Bushfire Protection*. The guideline was produced by the NSW Rural Fire Service with Department of Infrastructure, Planning and Natural Resources to guide development in bushfire-prone areas. for Bushfire Protection brings all the development planning protection measures into one publication. It provides councils and developers with information on bushfire protection from plan-making to development design, development control, construction certificates, and property maintenance. It should include the following matters:

- identification of bushfire-prone areas;
- planning principles to be considered when councils are rezoning;
- latest hazard Assessment method to work out appropriate setbacks;
- location of developments in areas of bushfire hazard based on latest CSIRO research on bushfire behaviour;
- appropriate level of building construction relevant to setback distances; and
- special setback distances for special use developments (such as aged care facilities).

- *Impacts on and buffers to agriculture*. The introduction of new uses into an area can cause adverse impacts on existing agriculture, especially intensive livestock such as poultry. There is a need therefore to ensure that any new development in the rural areas is located so that it does not jeopardise the operation of existing agricultural activities. This should include the introduction of appropriate separation distances. The philosophy of the new use taking responsibility to ensure that it does not impact on an existing agricultural operation should be introduced.

Map 4.7 : Rural Land Designations



3.5.3. Rural Land Uses

This section provides a discussion on the following land uses that have been identified in the research and discussions conducted in the formulation of this study as requiring specific management due to particular issues:

- Agricultural Uses
- Housing in Rural Areas
- Rural tourist facilities

A table at the end of this section summarises the uses and gives an indication of how they are to be dealt with in relation to the proposed land use designations / zones.

Agricultural Uses

The term "sustainable agriculture" has many connotations and is linked to the concept of Ecologically Sustainable Development, which embodies the 3 themes of Environment, Economics and Social.

A definition of sustainable agriculture in the ' Strategic Plan for Sustainable Agriculture - Sydney Region' is

> *"Agriculture that improves the total quality of life, both now and in the future, in a way that maintains the ecological processes on which life depends"*

Another definition is provided by the Standing Committee on Agriculture of the Australian Agriculture Council Working Group on Sustainable Agriculture:

> *"Sustainable Agriculture is the use of farming practices and systems which maintain and enhance the economic viability of agricultural production; the natural resource base; and other ecosystems which are influenced by agricultural activities"*

Both these definitions embrace the concepts of environmental and economic issues, but do not consider the social aspects of sustainable agriculture. These include the capacity of agriculture to meet the demands of the population for healthy and fresh food and fibre products, as well as its ability to have a minimal impact on the amenity and peace of mind of community members, thus reducing rural land use conflict.

A land use planning definition for sustainable agriculture, which incorporates the environmental, economic and social aspects of agriculture as a land use is as follows:

> Sustainable Agricultural use of land *means the use of land for animal boarding or training establishments, cattle feedlots, extensive agriculture, intensive horticulture, intensive livestock keeping establishments, opportunity feedlots or turf farming, which can be maintained and managed so that the land remains:*

- *environmentally sustainable (that is, environmental pollution and land degradation arising from the use is minimised);*
- *socially sustainable (that is, land use conflict and loss of amenity of the surrounding area arising from the use is minimised); and*
- *economically sustainable (that is, there is a capability of making a net farm profit from the use).*

There is currently an ambiguity with the definition of the various forms of Agriculture – mainly intensive and extensive or broadacre agriculture. The definition of agricultural uses is a complex matter and to understand it fully, it is necessary to first describe the problem and its causes. After this, some discussion of how it can be resolved for the Great Lakes LGA is provided.

From a land use planning perspective, there are 3 broad agricultural uses in NSW:

- Intensive plant growing
- Intensive animal keeping
- Extensive agriculture.

It follows, therefore that there is a need define these uses separately. Both of the intensive uses should require consent and extensive agriculture should not as it is considered that it does not, generally, cause major land degradation or water quality problems (unless it is associated with major land clearing, which requires consent itself) nor does it usually contribute to rural land use conflict. It generally occupies land already cleared and has historically been used for extensive agricultural purposes like cropping and grazing. It is considered to be unreasonable and unneccessary to require a development application as the impacts are, generally minor or can be dealt with by another land use consent mechanism. It is noted that extensive agriculture can have an impact on streams and waterways by stock accessing them, however it is not considered that consent be required as it would be too difficult to enforce as well as requiring the fencing of the river banks and the provision of other means of water for the stock, such as new drinking troughs. The issue of who pays for this is not considered to be a matter for a Planning Strategy.

Historically, the definition of agriculture has been taken from the Local Government Act of 1919, in which agricultural uses were defined as 'agriculture' which had a very wide-ranging definition as set out in section 514 of the Local Government Act of 1919. It should be pointed out that it was defined for the purpose of levying rates on the land and not for the purpose of controlling and managing land use This definition is reproduced below and it can be seen that it did not distinguish sufficiently between the agricultural use or an intensification of that use. Agriculture did not require development consent.

> *"Agriculture and 'Cultivation' include horticulture and the use of land for any purpose of husbandry including the keeping or breeding of livestock, poultry or bees and the growing of fruit, vegetables and the like and agricultural 'and cultivate' have a corresponding meaning."*

Most Councils in NSW then introduced definitions to control intensive animals and intensive plants without redefining the agricultural use and therefore contradicting the broad 'agriculture' definition which has led to some confusion. The nature of agriculture also adds to the confusion. Farms have a mixture of activities that can be intensive and extensive and this makes it difficult to define. Farmers in the past were able to run their property as a grazing property, for example, and then convert one or two paddocks to intensive market gardens for a season and then revert to grazing with no need for any form of development consent. The definitions of agriculture includes the definition of intensive plant growing and intensive animal keeping. The implications of this is that having regard to decisions by the Land and Environment Court, a proponent can choose the definition to be used and this could mean that both forms of intensive agriculture could occur without the need for development consent.

Another matter is that the definitions have not been based on the various agricultural systems which are easy to identify and define. An example of a definition that is confusing and difficult to determine what types of agriculture requires consent is the current one for 'intensive horticulture' in Sydney Regional Environmental Plan No. 20. This is as follows:

> *Use of a place to grow a commercial crop of plants or fungi, whether under cover or in the open, using intensive agricultural systems such as hydroponics or a sprinkler system (but not use of a place to grow produce for personal household consumption or enjoyment) which in the opinion of the consent authority has the potential to impact significantly on the total water cycle.*

The difficult thing about this definition is the last phrase dealing with "… in the opinion of the consent authority has the potential to impact significantly on the total water cycle." The interpretation of this by the public or the Council customer service staff is difficult because all uses could be considered to have an impact on the total water cycle and it is left to a subjective judgement. Also the case could occur where a dispute arises about the determination of consent requirements and ultimately, it would be left to the elected Councillors (who are the consent authority) to determine and they could resolve that a use that would in fact have a significant impact on the water cycle does not require consent. It is acknowledged that this scenario is unlikely but is used here to support the need for an easy identification of whether a use requires consent or not. The use of agricultural systems is such a mechanism.

With the intensification of agricultural uses and the potential to cause land use conflict, pollution and soil erosion, there is a need to require development consent for the intensive animals and intensive plant growing. Experience in preparing LEPs for rural areas has shown that there are too many definitions for particular types of agricultural uses and these are somewhat contradictory. This is a result of there not being an understanding of the nature of agriculture and its impacts on planning issues when the definitions have been determined.

Turf farming is a good example of this. It has been regarded as an extractive industry and falls under the definition of extractive material in the EP & A Model Provisions. It has been regarded as an extractive material because of the fact that some topsoil is taken when the turf is cut. However, if we are to consider the impacts of turf farming on water quality, we see that its major impact is from the application of fertilisers and some (minor) potential for loss of topsoil when the turf has been harvested and newly planted. These impacts are not the same as extractive industries which have major water cycle, noise and traffic impacts.

Intensive plant growing is currently permitted without the need for development consent because of the fact that it is not separately defined in the LEP. Intensive plant growing is a use that has the potential to cause an impact on water quality as well as land use conflict. Therefore there is a need to require development consent for intensive plant growing.

Definitions have been developed for Extensive Agriculture, Intensive Plant Growing and Intensive Animal Keeping Establishments for other Councils. This has been done on the principle of keeping it simple. From a land use point of view, it is considered that there only has to be three definitions for agricultural uses and these are based on agricultural systems rather than a subjective analysis of water quality impact. This is to make it clear to the farming community and the general community what is being referred to by using terminology that is understood by them. They are as follows:

- Extensive Agriculture
- Intensive Plant Growing
- Intensive Animal Establishments

The current LEP defines the term 'agriculture' and the term 'intensive agriculture'. The adoption of the three definitions below would alleviate any confusion that could ensue from the above discussion.

A suggested definition for extensive agriculture is:

> **Extensive Agriculture** means the growing of plants using natural rainfall (except for irrigated pasture and fodder crops) or the rearing of animals using grazing as a feeding method, but does not include intensive plant growing or intensive animal keeping.

This definition uses as its basis cropping and grazing that does not need the continual application of water or feed not occurring naturally. Periodic feeding for drought and water application is considered to be included

in this. Irrigated pasture (growing oats) and the growing of irrigated fodder crops (lucerne) are considered to be an extensive form of agriculture because the inputs and the extensive nature of the activity are not considered to be a major cause of nutrient export or land degradation when compared to market gardening or turf farming.

A suggested definition of intensive plant growing is as follows:

> **Intensive plant growing** means the growing of plants and fungi where water is applied over and above that naturally occurring and which uses the following horticultural systems:
>
> - Hydroponics,
> - Crop protection structures,
> - Market gardening,
> - Orcharding,
> - Field flowers,
> - Vineyards, and
> - Turf farming
>
> but does not include irrigated pasture and fodder crops, or the growing of plants or fungi where in the opinion of the Consent Authority, the produce is only grown for personal household consumption or enjoyment

This definition relies on a particular horticultural system as the basis for definition. It also uses the application of water (by irrigation) that is over and above that which is rainfall. It is the horticultural system, which has the potential to cause land degradation, water quality or land use conflict. Other definitions require decisions to be made about whether the particular use requires consent due to the potential to cause water quality problems. This definition requires consent for the *use* (horticultural system) rather than an interpretation.

A suggested definition for intensive animal establishment is as follows:

> **Intensive animal establishment** means a building or place in which or on which livestock are held for the purpose of nurturing by a feeding method other than natural grazing and includes:
>
> - Poultry farms,
> - Buildings and places used for aquaculture (including the farming of crustaceans);
> - Horse training, boarding and breeding establishment;
> - Piggeries;
> - Dog and cat boarding, breeding and training;
> - Cattle feedlots; and
> - Worm farms;
>
> but does not include the keeping of livestock only for personal enjoyment or consumption of the occupier of the land.

The main determinant of whether a form of animal keeping falls under this definition is the reliance on a feeding method other than natural grazing. There will be a need to add the words ‘ or anything elsewhere defined in this LEP’ to the definition to ensure that there is not any contradiction.

Definitions of the various components of agricultural systems are reproduced below in table 3.8. The use of these in the definitions would provide an easy to use set of definitions for intensive and extensive agricultural uses.

Table 3.8: Definitions of Agricultural Systems

Use	Definition
Aquaculture	(a) cultivating fish or marine vegetation for the purposes of harvesting the fish or marine vegetation or their progeny for sale, or (b) keeping fish or marine vegetation in a confined area for commercial purposes (such as a fish-out pond), (c) but does not include: i. keeping anything in a pet shop for sale or in an aquarium for exhibition (including an aquarium operated commercially), or ii. anything done for the purposes of maintaining a collection of fish or marine vegetation otherwise than for a commercial purpose, or iii. any other activity prescribed by the regulations.
Feedlots	The feeding of cattle in a confined area where a significant part of the feeding ration is provided as a supplement
Field Flowers	The growing of flowers in the open which utilises irrigation in addition to rainfall.
Horse training and boarding establishment	A place or property where horses are kept for training, boarding or agistment and where feed is imported, and full time grazing is not always available.
Hydroponics	The growing of plants utilising a liquid nutrient medium instead of soil.
Market Gardening	The growing of plants in a field for sale using soil as the growing medium and which uses irrigation in addition to rainfall.
Orcharding	The growing of fruit and nut trees on a commercial basis and which uses irrigation.
Piggeries	A place where pigs are raised using artificial feeding methods and the animals are kept in buildings or yards.
Poultry farms	The rearing of all types of poultry where imported feed and water is provided as a whole or supplementary ration. The birds may be housed or free range.
Protected Cropping	The growing of plants that uses a protective structure over the plants and can include greenhouses, igloos, hail netting and shade houses, but does not include a retail or wholesale plant nursery.
Turf Farming	The growing of turf grass for sale using irrigation. May be cultivated or naturally occurring plant species.
Vineyards	The growing of grapes for commercial purposes. They may be irrigated.

Rural Residential Development

Rural residential development is a term used to describe the use of rural land where the main source of income is not derived from agricultural or other pursuits related to the land. There is a need to provide a definition of the term so that there can be no confusion in its application. The definition is as follows:

> *A use of rural land where the main source of income of the family is not derived from agricultural pursuits on the land. It has a minimum lot size of 1ha and no maximum lot size.*

Housing in Rural Areas

Housing in rural areas takes three forms from a planning point of view and these are as follows:

- Dwelling Houses
- Dual Occupancies
- Rural Workers Dwellings

It is the dual occupancies and rural workers dwellings that is the subject of this discussion.

Dual occupancy, in its most traditional form, is the construction of a second dwelling on a property for accommodation of a family member (either aged or young people) and is commonly referred to as a granny flat. The introduction of a Regional Environmental Plan in the 1980s for Sydney permitted dual occupancy in residential zones as well as most rural zones. It became a legitimate housing form that contributed to urban consolidation in metropolitan Sydney.

The concept of a dual occupancy is to have the second dwelling as a small addition to the house or be a smaller building and not to be as large as the main dwelling. However this has not occurred and in both urban and rural situations, 2 new dwelling houses (of equal size) can been constructed side by side on blocks of land. In an urban context, there has been the ability to subdivide these 2 dual occupancies. This has caused a considerable amount of community unrest where it has been proposed in new urban release areas where such small lots were not planned. In rural zones, dual occupancies are often required to be attached by use of a garage / carport or breezeway. However the outcome is often one long building whose bulk and scale is not consistent with the rural streetscape character that consists of residential buildings and sheds separated by large spaces.

Attached dwellings will also require specific design guidance to ensure appropriate building forms for rural areas. If dual occupancies are to be considered on land less than 2 hectares in area, they should be required to be connected to water and sewer. This requirement already applies to dual occupancies in the residential and village zones.

If the Council is of the opinion that dual occupancies should continue as a legitimate housing option for its rural areas, decisions must be made about how to regulate their form (attached or detached), size, design, location and environmental impacts to ensure that the desired rural character is maintained. An additional dwelling on a rural property may be acceptable provided that the second dwelling meets the following criteria:

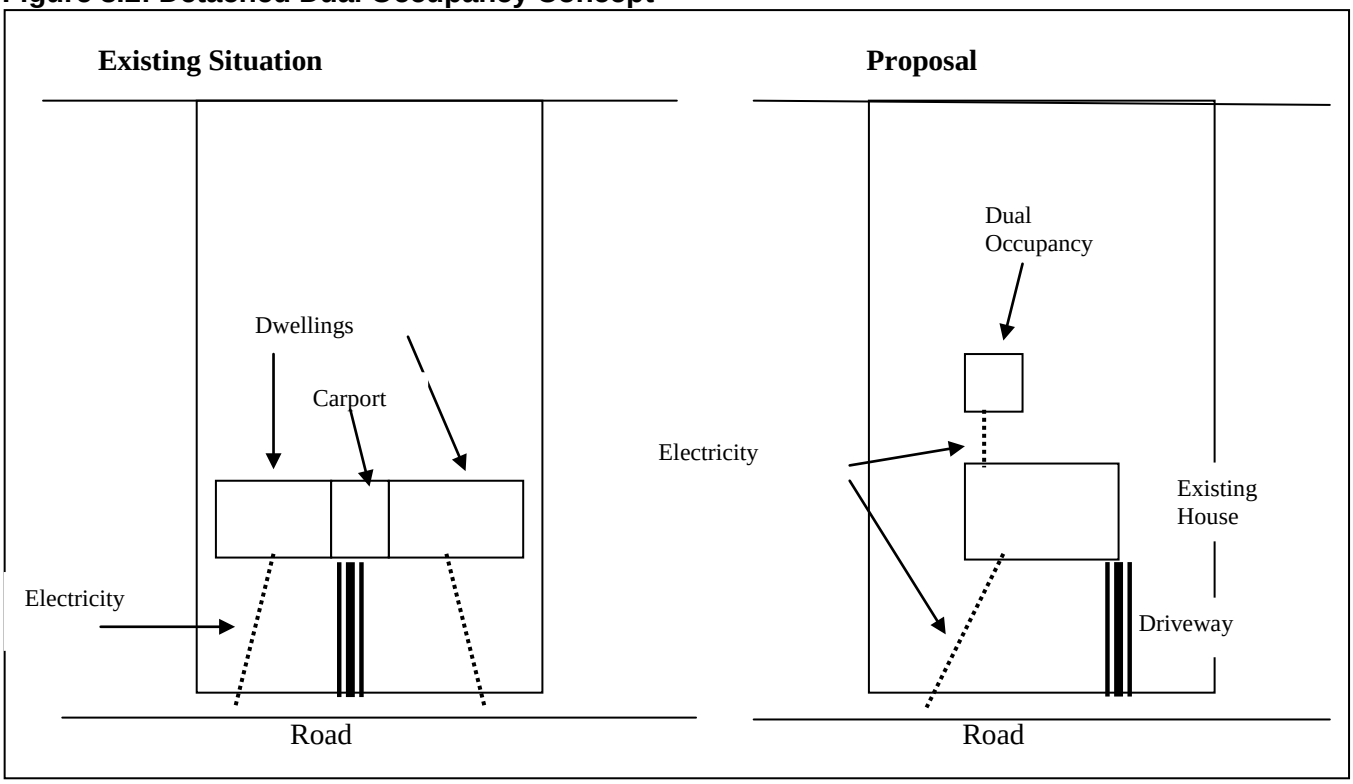
- They are separate, but not more than 50m apart;
- One dwelling cannot exceed 50% of the size of the other dwelling or up to a maximum of 100m² (exclusive of a garage), whichever is the greater;
- They are located on a lot not less than 2ha in size (unless connected to reticulated sewerage);
- One dwelling is located behind the other, as viewed from the nearest road;
- Access to both dwellings is limited to one driveway;
- There is only one electricity line and meter on the lot; and
- Both dwellings are of similar style, appearance and exterior materials and finishes.
- The urban sized lots at North Arm Cove and Pindimar that are zoned rural will not be permitted to have dual occupancy.

To be consistent Council should also specify that the maximum size for the smaller dwelling in an attached dual occupancy is to be no more than 50%, of the size of the larger dwelling or 100 m^2 whichever is the greater. This will also avoid the situation whereby a large elongated dwelling is erected facing the road.

Two dwellings are likely to be able to dispose of effluent on-site with 2ha of land. Even though this is also the minimum size for one dwelling utilising on-site effluent disposal, this size would also provide suitable disposal areas for two dwellings. The aim of the above criteria is to allow for a second residence primarily catering for more elderly relatives of the people living in the main residence.

The concept is illustrated in figure 3.1.

Figure 3.2: Detached Dual Occupancy Concept



It is considered that subject to these criteria being met, the potential for further subdivision of a detached dual occupancy will be minimised because of the fact that it is at the rear of the property and would be difficult to separate as it would interfere with the garden of the main dwelling. Whilst it is recognised that one cannot totally diminish any potential for future subdivision, adherence to the above principles will diminish it to a significant and acceptable amount.

Rural workers dwellings are additional dwelling houses that are permitted only to house people who are required to work on a property. They are required for mainly intensive forms of agriculture or large extensive agricultural holdings which need more than one family to operate them.

They have become defacto dual occupancies in some areas where the use has changed so that there is no longer a need for the employment of a worker on the land. They have also been a reason given for subdivision of rural land. The option exists to abolish them completely as they are not considered necessary in the current context where settlements are close by and farm workers have access to transportation. This is considered to be the appropriate course of action.

Farmgate Sales

Farmgate sales or roadside stalls occur throughout the rural lands and are not defined in the LEP. A definition from Baulkham Hills is reproduced below:

> *roadside stall means a building or place (not exceeding 20 square metres in floor space or area, respectively) where only primary products produced on the property on which the building or place is situated are exposed or offered for sale or sold by retail.*

They are generally permitted in rural zones. They have the potential to cause traffic hazards if they are located too close to the road and if there is not sufficient area for the cars to pull off the road completely. There is a need therefore to provide some guidelines for them.

Photo 4.8 shows a farm gate sale outlet in Baulkham Hills Shire which has adequate area for cars to get off the road.

Photo 3.7: Farm Gate sales facility

Rural Tourist Development

The Issues Paper has identified that rural tourism can provide a boost to the economic development in the rural area and section 3.8 of this report also recognises the benefits of tourism. There is a need therefore to encourage it by ensuring that the planning controls have sufficient flexibility in them.

There are two issues concerning tourist facilities that require attention:

- Contradiction between the definitions
- Subdivision of tourist facilities

The current provisions in the Great Lakes LEP for tourist related developments are ambiguous and contradictory. The source of the problem is the definition of the term 'tourist facility" which is defined as follows:

> Tourist facility *means an establishment providing for holiday accommodation or recreation, and includes a boatshed, boat landing facilities, camping ground, caravan park, holiday cabins, a hotel, house boat, marina, motel, playground, restaurant or water sports facilities or for a club used in conjunction with any such establishment, but does not include bed and breakfast establishments.*

It can be seen that this includes a number of other uses which are separately defined in the LEP. Of note are the terms 'camping ground', 'caravan park', 'hotel', 'motel' and 'restaurant'.

Each of the zones treats these differently and in a contradictory manner. All permit tourist facilities with development consent but prohibit some of the component parts of them. This is shown in table 3.9.

Table 3.9: Treatment of Tourist Facility in each zone

Zone	Prohibitions
1(a) Rural	Hotels.
1(c) Future Urban Investigation	Restaurants
1(d) Small Holdings	All except tourist facilities
1(d1) Rural Residential	All except tourist facilities
2 Village	All permitted
2(a) Low Density Residential	Motels
7(b) Conservation	All except tourist facilities and motels
7(c) Conservation	All permitted

Source: Great Lakes LEP 1996

It can be seen that in each of these zones, although the specific uses are prohibited by themselves, they are permitted as a tourist facility. Case law interprets such a situation as permitting the use where there is an ambiguity in the zoning table where a use is prohibit under one definition and permitted under another. So it can be seen that the prohibitions in certain zones are in fact ineffective.

Bed and Breakfast and Farmstay accommodation also need to be considered in the context of the definition of tourist facilities. It is noted that there is not a specific definition of farmstay and it is acknowledged that it is the same as a bed and breakfast but in a different location and consideration could be given to including a reference to it in the definition of rural tourist facility.

It can be seen therefore that there is a need to rationalise this and make it less complex. It would seem the best option is to separately define the component parts and not have the definition of 'tourist facility' at all. Suggested definitions are as follows (please note that the definitions of bed and breakfast establishment, camping ground or caravan park, hotel, motel and restaurant are the same as the existing LEP):

- *Bed and Breakfast establishment* means the use of no more than three bedrooms, contained within a building lawfully being used as a dwelling house, for the overnight accommodation of no more than six travellers.
- *Camping ground or Caravan Park* means a site used for the purpose of:
  (a) placing moveable dwellings (as defined in the *Local Government Act 1993*) for permanent accommodation or for temporary accommodation by tourists; and
  (b) the erection, assembly or placement of cabins for temporary accommodation by tourists.
- *Ecotourism facility* means a facility for nature based tourism that is managed in an ecologically sustainable way to ensure that the facility and associated activities do not adversely impact on the environment or intentionally disturb wildlife or their habitats. It must include one or more tourist accommodation buildings and a building or buildings at which education about, and interpretation of, the natural and cultural environment are provided.

- *Farmstay* means the provision of accommodation, provided within a tourist accommodation unit in association with a working farm. It can also include bed and breakfast establishments.
- *Hotel* means a building or place specified or proposed to be specified in a hotelier's licence granted under the *Liquor Act 1982*.
- *Motel* means a building or place used for the temporary or short-term accommodation of travellers or the general public, whether or not a restaurant is included, but does not include a hotel.
- *Restaurant* means a building or place used principally to provide food for people to consume in that building or place.
- *Rural tourist facility* means an establishment providing for the accommodation of tourists in tourist accommodation buildings containing a minimum of 4 tourist accommodation units plus a managers residence and can include a restaurant but which does not include a bed and breakfast establishment, camping ground or caravan park or hotel. There are 3 sizes of rural tourist facility as follows:
  - *Small* – contains4 to 10 tourist accommodation units
  - *Medium* – contains 11 to 25 tourist accommodation units
  - *Large* – contains more than 26 tourist accommodation units
- *Tourist* a person who is visits and stays overnight for a continuous period not exceeding 30 days, and who has a primary place of residence elsewhere.
- *Tourist accommodation building* means a building or part of a building containing one or more tourist accommodation units.
- *Tourist accommodation unit* means a room or suite of rooms used for the temporary accommodation of tourists but does not include bed and breakfast accommodation, camping ground or caravan park, hotel or motel.

The adoption of the term 'tourist accommodation building' and 'tourist accommodation unit' and 'tourist' will enable the matter to be simplified. It can cover such activities as cabins, farmstays and ecotourism facilities that are currently being provided in the rural areas. It also deals with the issue of the length of stay. The uses would be permitted and prohibited in the proposed land use designations as outlined in table 3.10.

Table 3.10: Summary of Tourist development recommendations

	Proposed Future Land Use Designation			
Category	**Agricultural Landscape**	**Rural Mixed Uses**	**Rural Fringe and Rural lifestyles**	**Villages**
Bed and Breakfast Establishment	✓	✓	✓	✓
Camping Ground or Caravan Park	✓	✓	✓	✓
Ecotourism Facility	✓	✓	✖	✖
Farmstay	✓	✓	✓	✖
Hotel	✖	✖	✖	✓
Motel	✓	✓	✖	✓
Restaurant	✓	✓	✖	✓
Rural Tourist Facility	✓	✓	✖	✓

✓ With development consent
✖ Prohibited

Size of Development and Distance from Urban Areas

Department of Infrastructure Planning and Natural Resources has suggested that Council use the Rural Living Strategy as an opportunity to provide a strategic framework for addressing the development and subdivision of tourist accommodation buildings and units in rural and environmental protection zones.

An option is to define tourist facilities according to size and to then apply limitations on the distances that the different sized facilities can be from a service centre. This can then be used to determine whether long term occupation and community title subdivision will be permitted.

Towns would be those that meet the criteria for a Regional centre or a Town as set out in the Rural Living Strategy, which are:

Forster/Tuncurry	Bulahdelah
Stroud	Nabiac
Hawks Nest/Tea Gardens	Pacific Palms/Smiths
Lake Karuah	Hallidays Point

The table below sets out how a model would be applied.

Table 3.11: Tourist Facilities Model

Development Type	**No. of Units**	**Long Term Occupancy Permitted**	**Community Title Sub Permitted**	**Permitted Location**		
				On periphery of town (within 5km)	Within catchment of town (15km)	Beyond Catchment
Small scale	4 - 10	No	**Y**	☐	☐	☐
Medium scale	11 - 25	**Y** if on periphery	* **Y**	☐	☐	☐
Large scale	26-50	**Y** / limited	* **Y**	☐	☐	☐
Caravan Parks		**Y** / LG Act	N	☐	☐	☐
Urban tourist development	No limits	**Y**	**Y**	N/A	N/A	N/A

* There will be limitations on the number of lots that can be created.
☐ Permitted
☐ Not permitted
Y Yes

Large or medium scale facilities that wish to establish beyond the prescribed distances can still be addressed by the rezoning process.

How to Give Effect to the Model?

To give effect to the model it will be necessary to introduce new definitions for the different sized tourist facilities. Provisions will also have to be introduced to LEP 1996 to prescribe the distances from urban centres where the different types of facilities will be permitted.

1. Small Scale Tourist Facilities (say 4 – 10 units including managers residence)

These are smaller scale facilities that rely upon the landscape, property activities or other natural assets on and around the land to attract visitors. As these are only small-scale operations there are no limits on their location, other than for the 7(a) Primary Environmental Protection zone, Coastal Protection zones and Rural Residential zones. These types of facilities would include:

- Farm tourism.
- Bed and breakfast establishments.
- Other small scale operations

2. Medium Scale Tourist Facility (say 11 – 25 units)

These are larger scale facilities where the attraction is not only the natural features of the land but also the accessibility to an urban area. They can also accommodate a larger number of visitors and for these reasons should be located closer to urban centres. Long-term occupation should not be permitted unless the development is located on the periphery of an urban area.

Medium Scale Tourist facilities will be permitted within all zones other than Rural Residential and 7(a) Primary Environmental Protection.

3. Large Scale Tourist Facilities (say 25-50 units)

These are the largest scale facility that can be approved before a rezoning is necessary. They provide for visitor accommodation and can also provide for some limited long-term accommodation. Due to the larger size and the opportunity for longer-term accommodation these must be located on the periphery of an urban area, say within 2 or 3 km. These facilities will not be permitted in rural residential or environmental protection zones.

In addition to the issue of distance to urban areas there are also issues associated with servicing, infrastructure and occupation of land that may otherwise be better used for urban purposes. Consequently these facilities should be limited in size and proposals larger than 50 units should be explored through the rezoning process.

Community title subdivision will be permitted provided the development continues to operate primarily as a tourist facility.

4. Natural areas/Eco- tourist facility

These would be small and medium scale, say up to 25 tourist accommodation units in one or more tourist accommodation buildings. These must also include a building or buildings at which education about, and interpretation of, the natural and cultural environment is provided. Unlike other tourist developments these will, because of their nature, be permitted within environmental protection zones, other than for the 7(a) zone. They are excluded from this zone because of the clearing that would be necessary to provide bushfire protection buffers.

This definition could be linked to the classification or performance criteria established by the National Ecotourism Accreditation Program. Development bonuses could also be made available for this type of tourism facility.

5. Tourist Facility

It will be necessary to retain the current, or a modified definition of tourist facility, to make distinction between facilities in rural as opposed to urban areas.

6. Other Definitions

The existing definitions in LEP 1996 of other tourist oriented facilities, such as hotels, motels and bed and breakfast establishments would be retained.

How Will the Model be Applied to Zones?
Once the different types and sizes of facilities have been defined it will be possible to then prescribe the zones within which each will be permitted with consent and whether there will be any limitations on how far they can be from urban centres.

Table 3.12 suggests the zones within which each facility would be permitted.

Table 3.12: Example of Current Zones and Different Types of Tourist Facilities

Type of Development	Community Title Sub Permissible	Zones						Any Restrictions on distance from urban centre
		Ag landscape	Rural Mixed Uses	Rural Residential	7(a)	7(b)	7 (c)	
Small scale Tourist	Y (min 4 units)	Y	Y	N	N	Y	Y	N
Medium Scale tourist	Y – only on periphery	Y	Y	N	N	Y	N	Y
Large Scale tourist	Y- only on periphery	N	Y	N	N	N	Y	Y
Eco-tourist facility	Y	Y	Y	N	N	Y	Y	N
Bed & Breakfast	N	Y	Y	Y	Y	Y	Y	N
Hotel	N	Y	Y	N	N	N	N	N
Motel	N	Y	Y	N	N	N	N	N
Caravan Park	N	Y	Y	N	N	N	N	Y
Farmstay	Y	Y	Y	N	N	Y	Y	N
Restaurants	N	Y	Y	N	N	Y	Y	N

Y - Permitted with consent
N - Prohibited

Subdivision of Rural Tourist Facilities
The Great Lakes LEP contains clause 33 which provides for the subdivision, using community titles subdivision, of tourist facilities. However, Council has been advised that the clause does not override clause 17 which sets the minimum lot sizes for subdivision. Therefore, subdivision of a tourist facility is not permissible because there is not any ability to create a lot less than the minimum within the zone – which is necessary as the lot size can be as small as 1 ha or less depending on the size of the unit to be subdivided.

It is noted that tourist facilities are costly to construct and larger ones may be beyond the financial capacity of most single investors or developers. Breaking a tourist facility into smaller interests reduces the cost of investment per unit or per investor. Subdivision allows individual investors to own title to separate lots containing dwellings while maintaining an interest in common or community property. Title to separate lots would be more marketable than ownership of corporate structures. However, one issue that needs to be addressed is the length of stay by people and ensuring that it does not become a defacto dwelling house. It is also necessary to set a minimum size limit to ensure that the facility is of sufficient size so as not to create a defacto subdivision for dwelling purposes. It is considered that 4 tourist accommodation buildings (plus a manager's unit) should require substantial investment to ensure that the tourist facility would be bona fide. Therefore, an amendment can be made to the LEP clause dealing with the minimum lot size to allow for the subdivision of a rural tourist facility containing 4 or more tourist accommodation buildings. It is necessary to set a minimum as well as a maximum size for the lots to ensure that subdivision is not for any other purpose than the rural tourist facility. Having regard to the nature of the developments in the LGA, a maximum size of 1000 m^2 and a minimum of 100 m^2 would be appropriate.

Minimum Property Size, Densities and Development Bonuses There can be merit in prescribing a minimum size for a property upon which a tourist facility can be developed. By doing this there is greater guarantee that the development will function as a tourist operation because small holdings of say two or five hectares would be excluded from such development. A minimum area of, for example 40ha, would at least ensure sufficient area for other activities normally associated with an environmentally based operation.

A similar result can also be achieved by applying densities, suchas number of accommodation units per hectare. Densities and minimum property sizes can also be linked with development bonuses, whereby an additional number of units, over and above that normally permitted can be allowed under certain circumstances. The circumstances would be when the development is undertaken in conjunction environmental enhancement works.

3.5.4. Rural Lot Sizes

An analysis has been carried out of the existing lot size range within the Agricultural Landscape designations. The current minimum lot size is 40 ha for the existing zones. The analysis has revealed that the lots of >78 ha (those which could be subdivided into 40 ha lots) are well distributed across the LGA. An evaluation has indicated that if all these were subdivided then there could be about a further 2,600 lots of 40 ha. Even if only half of these were subdivided then we could still have a further say 1,300 lots. Keeping the 40 ha lot size minimum, therefore would keep the status quo and keep the rural landscape as it is at the moment.

Analysis of the lot size range to find out the impact of a 20 ha minimum has revealed that at a very conservative estimate, at least 10,000 additional lots could be created across the LGA. Even if only half of these were constructed, this is still a large number of new lots. Costs to service, conflict with rural activities and fragmentation of rural land (thus reducing agricultural opportunities) then arise as issues if the lot size is reduced.

There are a number of options associated with the rural lot sizes. They are discussed below:

- *Decrease the minimum lot size.* Decreasing the minimum lot size will allow for a larger number of lots to be created. This can have an impact on the amount of traffic (each rural lot generates between 6 to 8 vehicle trips per day for the average family), pressure to seal unsealed roads, potential increase in pollution in surrounding streams, potential loss of vegetation and habitat and extra demand on the services and facilities provided by the Council.
- *Increase the minimum lot size*. This will limit any further subdivision occurring. Selecting an appropriate new minimum would prove problematic due to the greater types of agricultural uses now present. If the lot size was orientated around broad acre grazing then a much greater minimum would be appropriate, however, some uses can be sustainable on land considerably smaller in size than the current minimum of 40 ha.

  Another argument for increasing the lot size is that it would prevent further fragmentation of larger holdings. Whilst an increase in lot size may achieve this result, it ignores the question as to whether it is necessary to ensure larger holdings are preserved.

  One of the main difficulties would be deciding on the relevant size so that viable extensive agriculture continues. This is likely to be in the vicinity of at least 500 ha [Dubbo City Council have determined that 800 ha is an appropriate minimum for extensive agriculture (Great Lakes has a higher rainfall and 500 ha would be more appropriate)]. Given the already fragmented nature of land in Great Lakes (see Map 6.2 in the Issues Paper), Council believes that little would be achieved from increasing the minimum lot size. Other than for some holdings to the north and north-west of Tea Gardens, most of the larger lots are in steep, heavily vegetated areas and have poor access. Consequently, there is no reason to subdivide most of these holdings as there would be little demand for the lots and approval from Council would be more difficult to obtain.

It should be noted that if NSW Agriculture strongly objects to a subdivision of a large property (greater than 80 ha), that Council can deny the application and maintain a larger lot size for that property on the basis that the larger lot size is required to maintain prime agricultural land.

On a comparative basis across NSW there is not the same returns from broad acre farming and from an economic perspective the value of broad acre activities are not as important as more western areas or the highlands.

- *No change in the minimum lot size*. This will keep the environmental attributes as they are and will not create any more lots than are permitted at present.

- *Variable minimum lot sizes across the LGA.* This is an option that can allow various parts of the LGA to have some more subdivision. It needs to be assessed in relation to the potential environmental, social and economic costs and benefits to ensure that it does not create problems for future generations.

It can be seen therefore that there are a number of options that can be considered for rural lot sizes and each has its own benefits and costs. Council believes that the 40 ha minimum should be retained for the majority of rural land, whilst small lots (rural residential development) should be considered for unconstrained land on a Service Centre catchment approach.

Consequently, Council believes there is no real need, and that it would be unreasonable, to increase the minimum lot size.

Another reason for the retention of the 40ha minimum is that reducing the minimum lot size will increase the risk of environmental degradation and also the burden to Council of supplying a higher level of services and facilities to a scattered population. Conversely, increasing the minimum lot size is not favoured due to the problematic nature of coming up with minimum lot size that can be considered sustainable for all types of agriculture.

3.5.5. Agricultural Buffers

'The purpose of a buffer is to separate conflicting land uses. The most common source of conflict for agriculture is residential development (both urban and rural residential) due to their significantly different interests and needs' (Briggs & Whitehead March 2000, 1). Conflict occurs for a number of reasons, for example, 'many farm activities need to be undertaken outside standard business hours which can conflict with the occupational patterns and activities of adjoining residents with non farming occupations. Other developments with significant public focus (such as schools, tourism, aged care and community facilities) can also have significantly conflicting needs to those of agriculture' (Briggs & Whitehead March 2000, 1). The main conflict sources include dust, chemical spray drift, odour, light (at night) and noise.

Briggs & Whitehead (March 2000, 1) note that 'good management in accordance with best management practices and appropriate design are critical in reducing the potential for environmental impacts and complaints'. The authors also note that conflict involves 'issues of perception and individual sensitivities which cannot always be redressed without imposing significant operational or economic constraints on otherwise valid agricultural enterprises' (Briggs & Whitehead March 2000, 1).

NSW Agriculture advocate appropriate zoning and 'effective supplementary planning controls such as a Buffer Development Control Plan' (Briggs & Whitehead March 2000, 1). Another important method (if not more so) is to consider buffers and separation distances via a rural strategy. This allows the issue to be considered before land is rezoned for residential or rural residential purposes, and hence, allows a consistent approach to the rezoning of land. This will prevent land use conflict and provide more surety in agricultural investment.

NSW Agriculture note that 'whilst buffers may assist in reducing the degree or potential for conflict from processing plants, adequate separation may not always be physically or economically feasible. Alternative opportunities may exist for mutual agreement as to hours of operation. Prior to construction it also is advisable to investigate suitable alternative locations and clustering as a means to minimise the extent of potential conflict' (Briggs & Whitehead March 2000, 2). This equably applies to forms of agricultural production. The clustering of certain types of agriculture, for example Cessnock City Council's "Vineyard District", reduces the potential for conflict.

Where conflict arises from past planning and development decisions (or historic agricultural practices) the adoption of on-farm buffers, including vegetative screens, and best management practices can minimise the impact of agricultural activities on the environment and surrounding residents.

Biological Buffers

NSW Agriculture state that 'the role of appropriately designed vegetative buffers in intercepting chemical drift and buffering visual noise intrusion is scientifically documented. Consequently, there is considerable interest in biological buffers as a means to reduce the need for physical separation, thereby increasing development opportunities. Biological buffers can also contribute to increased biodiversity, shade, visual amenity and soil stability' (Briggs & Whitehead March 2000, 6). NSW Agriculture note, however, that such benefits are only often gained from mature vegetation, which can take years to develop. Appropriate establishment and maintenance of biological buffers can also prove difficult to enforce. Although it should be pointed out here that it is in the interest of the landowner to maintain these vegetation buffers to avoid possible future conflict.

Biological buffers impact on the local micro-climate of the area through shading, altered air-flow patterns and water and nutrient use. This type of buffer can also impede the views of nearby residents, and can also harbour exotic weeds or pests if inappropriately managed.

Minimum Separation Distances

NSW Agriculture state that 'where there is no existing vegetated buffer, the Queensland guidelines suggest a minimum separation [distance] of 150m for dust, 300m for chemical spray and 500m for odour, but recommend that the width of the buffer, should be dependant on the most limiting factor involved (ie. the factor that will require the greatest buffer)' (Briggs & Whitehead March 2000, 7).

NSW EPA (January 2001, 28 – 51) provides minimum separation distances for odour from broiler chicken farms, intensive piggeries and cattle feedlots. The separation distances for each are the same and are provided in the following table 3.13.

Table 3.13: Fixed Separation Distances

Feature	Separation distance (m)
Public road – except roads described below	200
Public road – unsealed, with less than 50 vehicles per day excluding traffic from the farm	50
Major watercourse	200
Other watercourse as defined by a blue line on a current 1:50,000 NSW Government topographical map	100
Major water reservoir	800
Dairy	100
Slaughter house	100
Neighbouring rural residence	200
Property boundary	20

Source: NSW EPA

NB. Fixed separation distances are measured as the smallest horizontal distance between the boundary of the farm and the features specified in the above table.

NSW EPA note that the fixed separation distance for a neighbouring rural residence will not always be the one used. The Technical Notes with the Draft Policy specify that the variable separation distance must also be calculated and the greater of the two should be used as the separation distance. Formulas to calculate the variable separation distance are included in the abovementioned document. The following three examples relate to the variable separation distance:

Scenario – A broiler chicken farm with two standard size sheds, full ventilation, flat topography, no significant trees and normal wind conditions.
Minimum distance from a rural residence = 339m
Minimum distance from a town = 621m

Scenario – A broiler chicken farm with five standard size sheds, full natural ventilation, flat topography, no significant trees and normal wind conditions.
Minimum distance from a rural residence = 649m
Minimum distance from a town = 1190m

Scenario – A broiler chicken farm with five standard sheds, full natural ventilation, significant hills between the farm and a neighbouring house, wooded country and high frequency of winds towards the house.
Minimum distance from a rural residence = 477m
Minimum distance from a town = 875m.

Circular No E3 from the former Department of Planning provides guidelines for buffer areas around sewage treatment plants, and specifies that this buffer should be at least 400 metres wide.

NSW Agriculture have Best Practice Guidelines for specific industries such as the NSW Poultry Farming Guidelines, which provide recommended minimum separation distances. Table 3.14 is an extract from this document.

Table 3.14: Recommended Minimum Separation Distances for Poultry Developments

Situation	Distance (m)
Urban residential zone	500
Settlements of 10 or more dwellings	300
Dwelling on another property	150
Dwelling on the same property	50
Property boundaries	30 to 50
Public Road	100
Other poultry farms	500
Water course	50

Source: NSW Agriculture

NB. Developments in close proximity (100m) to a watercourse may be subject to further detailed analysis. These distances are measured from the poultry shed to the neighbouring "situation".

NSW Agriculture specify that the above table should be used as a guide only, for example, a very large farm sited uphill from a residence may need a greater minimum separation distance than recommended.

Minimum Separation Distances – Discussion

From the above policies and guidelines, it can be seen that separation distances are not something that different departments and States are agreed upon.

For the purposes of this Strategy, a minimum separation distance between the property boundary of a poultry development and proposed rural residential development is set at 500m.

It is recognised that proposed separation distances can depend upon issues such as topography, number of sheds and farm management practices, but in the interests of adopting a holistic approach to the issue, an "across-the-board" figure has had to be used. It should be pointed out that once closer settlements (rural residential development) have been allowed to exist alongside intensive agriculture (whether poultry or otherwise), the situation is irreversible. Hence, a slightly conservative minimum separation distance of 500m is appropriate.

3.6. Conservation Framework

The discussion outlined below has been derived from the Great Lakes Conservation and Biodiversity Framework prepared by Land and Environmental Planning Pty Ltd for Council in 2003. It was adopted by Council on 25 June 2003.

3.6.1. Ecologically Sustainable Development

The principle of biodiversity conservation is now widely recognised as a core business function of Local Government. This stems from the emphasis on these principles in Federal and State Government legislation and policy and from the Local Government Act itself. The Local Government Act prescribes that a Council's charter must include "*management of the environment consistent with the principles of ecologically sustainable development (ESD)"*. Included in the principles of ESD is recognition of the need to maintain biodiversity.

In recognition of this emphasis on ESD and biodiversity all Council's recent major natural resource and development strategies have incorporated discussion on, and in some cases actions necessary to give effect to these principles. Commonwealth and State funding has also driven this focus, for example the Wallis Lake Catchment Plan reinforces the connections between vegetation and biodiversity management and sustainable management of the Wallis Lake catchment.

Studies show that the Great Lakes Local Government Area contains a high diversity of native vegetation types and habitats, which support a large number of native species, including listed threatened species (88 recorded species). The LGA is at the transition of two bio-regions which is one of the reasons why there are so many species of fauna within the LGA. Biodiversity and native vegetation also contribute to essential ecological services such as the protection of water quality and visual amenity.

Although the existing Great Lakes local environmental plan includes a range of environment protection provisions, recent completion of vegetation mapping and other strategic projects provides an opportunity to review the strategic and regulatory plan provisions, and to improve integration between scientific knowledge and planning and land use practice.

Biodiversity conservation also provides important social and economic benefits to the community. It is increasingly recognised that biodiversity management must be taken into account in a wide variety of local government activities, especially land use planning. The benefits of conserving biodiversity have been recognised in legislation by requiring biodiversity (including threatened species) to be taken into consideration by councils.

3.6.2. Information Base

The most important requirement is an information base to enable land with different natural qualities to be identified. Once this is available geographic areas with different natural values of importance can be mapped and different provisions for each mapped area applied in the LEP.

Considerable information has been obtained during the course of preparation of all the main Strategies that apply to Great Lakes, including the Wallis Lake Catchment Plan and the Conservation and Development Strategies. This information, as now included in Council's GIS system, can provide the basis for delineating land with features of importance. The strategies also indicate where additional information will be required.

To date the following information has become available:

- Vegetation and habitat mapping
- Groundwater catchment areas
- Threatened species habitat
- Land of importance for the protection of surface water quality
- Steep land
- Riparian zones
- Areas susceptible to erosion.

3.6.3. Conservation Framework Model

The model should be adopted so as to generally guide the statutory changes to LEP 1996 and allow a greater level of detail to be shown in Council's strategies.

The model includes the following priority actions:

- Inclusion of biodiversity principles and definitions in LEP 1996.
- Revision of existing environmental protection zones (in terms of objectives and what is permissible).
- Identification of ecological/landscape settings. The settings would give recognition to the natural features that are important in different areas.
- Inclusion of biodiversity conservation incentive provisions, including the concept of development bonuses (linked to financial program, such as NSW Nature Conservation Trust acquisition).
- Introduction of provisions for the management of riparian zones.

Each of these will be discussed below.

Biodiversity Principles

Presently LEP 1996 contains very little in the way of broad policy direction on the management of natural resources in the LGA. For example the overarching aims and objectives of LEP 1996 give minimal direction on the need to properly consider conservation and water quality principles and how these must be properly balanced with the community's social and economic aspirations. Similarly there is no reference to the significance of the areas' natural environment or its importance in a regional, state or national context. Inclusion of these broad principles is desirable so as to underpin the intentions of the instrument and to provide a strategic framework for decision-making.

The best way to do this is to expand the preliminary/policy section of the LEP. This section of the plan is nonregulatory and can:

- Revise the aims and objectives to of the LEP recognise the importance of integrating land, vegetation management and water issues so as to achieve ecologically sustainable development and to maintain the character and environmental values of the locality.
- Identify principles for land and water issues and biodiversity conservation.
- Identify the national and regional planning context.

Revision of Existing Environmental Protection Zones

There are two aspects to this. First is the Establishment of a hierarchy of environmental protection zones. The second aspect is to review the uses permitted in the environmental protection zones.

There are presently five types of environmental protection zones under LEP 1996:

- 7(a) Wetlands and Littoral Rainforests zone;
- 7(b) Conservation zone;
- 7(c) Scenic Protection zone;
- 7(f1) and 7(f2) Coastal Protection zones; and
- 8(a) and 8(b) National Parks zones.

A deficiency in the current zoning system is that it does not enable a distinction to be made between areas of differing environmental significance. This is because the highest level of protection is only afforded to wetlands and littoral rainforests and we now know, from more detailed studies, there is other land just as important as these two types of ecosystem.

A revised conservation hierarchy that distinguishes between protection and conservation will considerably assist in establishment of a natural resource management framework. Protection is the more restrictive and would be applied to area where knowledge is highly developed and where assessments recommend that development potential be restricted or prohibited. Conservation is less restrictive and would enable greater development opportunities. The first step is to create a new primary 7(a) Environmental Protection zone to replace the current 7(a) zone. The current zone only applies to SEPP 14 Wetlands and SEPP 26 Rainforests and should be broadened to encompass other land that is known, by detailed studies, to be of high environmental value. This new zone can be progressively be applied to land as studies show that the land is of high environmental value where land uses should be restricted. This step has already commenced with Council's decision to apply a new 7(a) Primary Environmental Protection zone over land at Bennetts Head Rd and to rezone the North Hawks Nest area environmental protection. The new environmental protection zone is considered necessary because the present 7(b) zone does not properly manage land of highest environmental value and the 7(a) zone is limited to wetlands and littoral rainforests.

There will also have to be some changes to uses within the current environmental protection zones, such as the introduction of a definition of eco-tourism to replace the current broad "tourism" definition. Other uses that are currently permitted within the 7(a) and 7(b) zones, such as aquaculture, motels, tourist facilities (regardless of scale) and agriculture, are probably inappropriate in at least some of the environmental protection zones.

Ecological Settings

Essentially the ecological / landscape settings will overlay the LEP zones. The settings will identify the features of the land that are important to manage. A key feature of the settings is that they will identify the natural values for which the land is considered to be important but there is insufficient information to determine whether or not the land should be included in an environmental protection zone.

In summary the settings will:

- Augment zones by identifying natural features of importance.
- Identify areas where ecological / environmental issues are likely to arise and must be considered in the development application process. As some stage Council may use the settings as the basis for determining whether or not certain activities, such as clearing, construction of dams and alteration of drainage regimes require consent.
- Identify areas of caution for development and rezoning.
- More specifically identify development application requirements and assessment procedures.
- More accurately describe the natural values of the land than that available under current zones.

The following table 3.15 summarises the relationship between zones and ecological settings.

Table 3.15: Relationship between Zones and Ecological Settings

Designation	Description, Purpose and Use
Land Use Zones	The zones reflect broad land use strategy, identify development purpose and potential (especially provision of infrastructure). Zones are marked on a map.
Ecological planning settings	Ecological settings reflect desired ecological functioning and values. They may, in the future operate as development constraints because the process for design and consideration of development applications in different settings will be different. Settings operate as an overlay on a map.

Table 3.16 recommends the types of settings that could be nominated, why they are important and the features that will be mapped for each setting. It is anticipated that the settings will become part of LEP 1996. A set of objectives would be created for each setting.

Table 3.16: Recommended Ecological Settings

Ecological Setting	Description	Features
Natural	Comprise land where important natural ecological processes and systems exist or are likely to exist. These areas must be effectively managed because of their contribution to the biodiversity, water quality and scenic quality of Great Lakes.	▪ Areas of known or likely predicted high ▪ biodiversity ▪ Areas of high and medium habitat value as identified by Council ▪ Areas of native flora of conservation ▪ Significance ▪ Areas of largely undisturbed native vegetation ▪ Areas of known threatened species habitat ▪ SEPP 14 - Wetland and 26 - Littoral rainforest areas ▪ Riparian zones – 40m either side of rivers, creeks, waterways and waterbodies ▪ Foreshores ▪ Areas of high scenic value predominantly covered with native vegetation ▪ Regionally significant areas identified under the Karuah / Great Lakes Catchment Blueprint
Drinking Water Catchment Protection	Comprises land that has generally undergone a transition from one state to another and which is important for the preservation of the quality of groundwater used for drinking. These areas must be effectively managed due to their contribution to the maintenance of ground and surface water quality and water dependent ecosystems, and the scenic values of Great Lakes.	▪ Steep land - >25% slope ▪ Areas that are predominantly cleared but are within the surface catchment of aquifers used for human consumption ▪ Areas that are predominantly cleared and ▪ which are known to be particularly important for the preservation of water quality in the receiving waters.
Corridor / Linkage	Comprises areas that are important for the movement of fauna. The areas may be currently vegetated or they could be other areas that should be rehabilitated so as to provide/enhance their function as a fauna movement corridor. This setting could be linked to environmental enhance incentives and bonuses if development is proposed within the setting. Options could include financial assistance for rehabilitation/enhancement.	▪ Land identified by the National Parks and Wildlife Service and Council in corridor strategies. ▪ The final corridor locations will have to be ground truthed and an option is to seek NHT funding or similar for this project.
Transitional	Comprises areas that are in the process of change from one state to another or which will undergo change as Strategies adopted by Council are acted upon. These are also areas that are important as buffers to natural and catchment protection settings and to other natural areas of importance, such as National Parks.	▪ Areas that are predominantly cleared ▪ Areas that are occupied by land uses where the natural setting has been substantially modified ▪ Areas where effective management of any land uses or actions is necessary to avoid impact upon National Parks, Nature Reserves, other conservation areas and natural setting. These are generally referred to as buffers. ▪ Areas fragmented by subdivision.
Farmland	Comprises areas that have been converted from predominantly natural bushland to productive and viable agriculture.	▪ Areas that are almost entirely cleared. ▪ Areas obviously used for extensive agriculture, intensive plant growing and intensive animal establishments.

Biodiversity Conservation Incentives

Incentives are based on the principle that it is reasonable for an owner to derive development yields not normally available provided the community, in return, receives enhanced protection and ongoing management of land of environmental significance. Incentives are a means of rewarding people for efforts in delivering environmental benefits.

A key incentive is to make available of development bonuses. This is a concept whereby a person is given development entitlements beyond that otherwise allowed by the LEP. In return the person agrees to enter into some form of agreement to protect land of environment value by at least agreeing to rezoning of that part of the land for environmental protection and/or entering into a property management agreement.

Rehabilitation/environmental enhancement works may also be required. Bonuses may include, for example, additional dwelling or subdivision entitlements. Essentially the main principles would involve:

- management and protection of land of environmental significance into perpetuity.
- meeting the criteria that would be set for such development eg subdivision or dwelling bonus within prescribed distances of service centres on land within natural or corridor settings.
- no compromising the environmental values of the land and surrounding land
- have to be reasonable on social and economic grounds
- have to be reasonable after all other merits considerations

Application of Conservation Incentives/ Development Offsets to Darawakh Creek?

The Darawakh Creek and Frogalla Swamp area is a known acid sulfate soils "hot spot" and is also of high ecological value. The Darawakh Creek and Frogalla Swamp Wetland Management Plan recognises the need to implement effective management measures for the area. Council has identified this area as a model to apply the conservation incentives/development offsets concept. The area as shown in Map 4.8.

One of the preferred implementation options is to provide landholders with equitable incentives, such as development entitlements on the dry land parts of their holdings, so that they will participate in the transfer of ownership and rehabilitation of the of the Darawakh and Frogalla wetlands. In relation to this option the Management Plan says the following:

> *"Some landholders have expressed interest in divesting themselves of the wetland components of their holdings, and most are interested in enhancing the development prospects of their floodfree land as an offset to giving up the use of wetland areas. Some have expressed the view that if they cannot strike a deal that is acceptable, they will hold land for the future. Most have concerns about any changes to property access afforded by the farm crossings constructed across the wetland, while they own the land.*
>
> *Both GLC and GTCC are considering a system of 'development offsets' to provide landholders with the opportunity to increase their development opportunities in return for dedicating environmentally sensitive land to public use for environmental rehabilitation purposes.*
>
> *This scheme offers the opportunity to regenerate extensive areas of the 'swamp', and 'heath' wetland communities that are most affected by drainage with potentially little or no public expense. However, about 20% of properties with no land with development potential, may require outright acquisition in the future if landholders wish to divest themselves of the wetlands.*

All landholders contacted thus far have expressed considerable interest in the 'development offsets' concept as a means of rationalising land use in the Darawakh Creek wetland and Frogalla Swamp.

The steps in achieving the above would be to seek:

1. *Landholder agreement by the fact that the continued right of landholders to use existing constructed drainage and access to the swamp for grazing management and recreational purposes severely compromises the management needs of the wetland to redress the acid drainage problem.*

2 *Landholder endorsement of the proposal to obtain special planning approval for rural residential or other development on their flood-free land in return for dedicating inperpetuity, the wetland to Council for 'environmental rehabilitation' purposes.*

3. *Funding for WCA and Council to sponsor a 'landholder group' SEPP 1 Integrated Development Application to provide the necessary subdivision approvals to facilitate the rehabilitation of Darawakh Creek wetland and Frogalla Swamp.*

4 *Valuations (2) of the englobo holdings and component parts ie the excised wetland without prospect of housing entitlement, dryland with additional subdivision entitlement(s) etc. in order to provide a fair, equitable and accountable basis for the SEPP 1 application, such that it is not seen as a 'windfall profit' for the landholder or Council.*

5. *Approval for subdivision would be conditional on the transfer of the wetland to Council and the transaction would be completed at the time of registration of the subdivision".*

Application of a development offsets scheme to Darawakh Creek and Frogalla Swamp would meet the principles set out in the rural strategy, primarily because the land is within reasonable commuting distance of Forster/Tuncurry and there would be substantial environmental benefits.

What Would be the Requirements Development Offsets at Darawakh Creek and Frogalla Swamp?

Development offsets would be determined for each property based on the following requirements:

- The environmentally important part of the property would have to be protected into perpetuity.
- There is to be no adverse impact on other significant environmental features of the land.
- The lots are to be connected to reticulated sewerage or if sewerage is not available the minimum lot size will be determined by the geotechnical characteristics of the land, but will be no less than 2ha.
- The number of "offset" lots will be determined by factors including the amount of land to be protected, the environmental capacity of the land to support subdivision and development and the ability of the lots to provide a reasonable area suitable for a dwelling and associate. Consistency with surrounding development will also be a consideration.

How Would the Development Offsets be Given Effect?
This would depend on a number of factors, including the size of the property, the number and size of lots that could be created, the value of improvements on the property and the amount of land to be protected once the subdivision has been undertaken. In situations where only one or two lots are be created and these merely involve a reduction in lot size below the 40 ha standard, without creating additional subdivision entitlements, the use of SEPP No. 1 would be appropriate.

However in circumstances where a larger number of lots is involved a rezoning to rural residential will have to occur. An example of the latter situation may arise with a site such as the "Ton-O-Fun" where substantial wetlands could be protected. To offset the protection and in view of the value of the current improvements on the property more than two or three rural residential lots could be created if suitable land is available on site. Preliminary negotiations have commenced in relation to the Ton-O-Fun.

Riparian Zone Protection Measures

This is where Council includes provisions in the LEP relating to development or works in the vicinity of creeks and streams. Such provisions can include a requirement for consent to be obtained for any works within a certain distance of a waterway or waterbody. The LEP can also prescribe the matters that Council must consider when assessing a development application, including:

- Impact upon stability of the banks.
- Flows to and water table levels in any nearby wetland.
- Impact upon water quality.
- Needs of existing and potential downstream water users.
- Impact upon riparian vegetation.

It is anticipated that these provisions would be applied to works within 50 metres of creeks, rivers and lakes/estuaries.

3.7. Indicators of Sustainability

> *"Sustainability is a direction, more than a fixed destination. It is most effective when embraced voluntarily by people living together in cooperation and democracy. The term is now being used worldwide, in every language, to express this critical concept for the future of human societies on earth: that to survive, we need to better understand the consequences of current growth and development patterns on future generations and to pay attention, now, to the linkages that make the environment, economy and society interdependent. The challenge is to learn to continually work with this delicate balance through changing times. The concerns range from local needs and regional limits to global impacts, but the work is here, now, day by day. And it involves everyone."* (Sustainable Seattle 2000)

Ecologically Sustainable Development (ESD) is an important matter to consider when discussing the future of the rural lands of Great Lakes.

As noted above, sustainability is a set of principles to achieve a desired end state of the development process. However without some form of measurement of this sustainability there is no way of knowing whether a certain type of development is sustainable in the long term. The concept of indicators of sustainability, that is, the measuring of development impact and feeding back these measurements into the plan making process is a desirable goal.

3.7.1. Two types of Indicators

Indicators can be developed that will give an analysis of the health of a catchment as well as the quality of life of the residents within an area. The discussion that follows has been based on research into the preparation of catchment health indicators and this has been modified to develop a set of quality of life indicators. It is suggested that the term catchment health indicators is more accurate for the land use planning area. It is more understandable and also is something that Councils can have an impact upon – the health of the local catchment and the impact of land use on that health. Similarly, it is suggested that the term 'Quality of Life' indicators be used to provide an analysis of the social issues for a community. If the social issues are being addressed adequately, the residents will have a good quality of life. It is also easier to understand. The indicators have to be considered in the context of ESD.

> *"In both rural and urban landscapes, environmental changes due to various human activities, … are being increasingly felt and raising our perceptions of the environmental costs of these activities. People in the cities have experienced smogs, some rivers and beaches no longer fit for recreational use, loss of favourite natural areas to suburban and coastal development, and so on. Farmers and rural inhabitants have seen the losses of soil in wind and water erosion; they are aware of areas no longer able to be farmed because of gully development, of the declining crops and pastures in saline areas, and of paddocks with unhealthy trees and no regeneration." (Williams, et al 1998 p 99)*

Changes are continually occurring within catchments and some of them are a result of the development process taking place. In fact it could be said that all development has an impact on a catchment. "These visible undesirable changes in condition of the atmosphere, land and water are indicators of degradation - degradation that is being brought about through a change in the environmental processes by human activity." (Williams, et al 1998 p 99) There is a need therefore to develop indicators of the health of a catchment and then identify ways of measuring these so that appropriate management policies can be put in place.

Council has a great opportunity to actually measure the sustainability of the policies that are written. Introducing catchment health indicators and quality of life indicators into the planning process can do this. These can then be measured by the State of the Environment reporting (which is publicly reported) and used as a guide to the adequacy of land use policy.

3.7.2. The National Context

The Australian and New Zealand Environment and Conservation Council (ANZECC) State of the Environment Reporting Task Force has produced a recent document called "*Environmental Indicators for Reporting on the State of the Environment*." The document states that the environment is complex and discerning environmental trends can be difficult. Environmental (catchment) indicators, it states, help track changes in the environment by selecting key measures – which may be physical, chemical, biological or socio-economic – that provide useful information about the whole system. By using indicators it is possible to evaluate the fundamental condition of the environment without having to capture the full complexity of the system.
The ANZECC State of the Environment Reporting Task Force has produced a series of indicators and publications which are very useful and which provide a standardised set of indicators based on common themes used by the OECD and standardised for Australia and New Zealand. These are:

- Atmosphere;
- Biodiversity;
- Land;
- Inland Waters;
- Estuaries and the Sea;
- Human Settlements; and
- Natural and Cultural Heritage.

These can be used as a guide to developing indicators for the local situation. Although not all of these are relevant to the issues that apply to Great Lakes' rural lands, some will have varying degrees of impact on the development of land use and social policy for rural land. It is necessary therefore to select individual ones and develop a system whereby indicators can be measured in a simple manner. The specific objectives that have been identified in the Rural Lands Strategy are also useful in identifying the range of indicators to be used.

3.7.3. Developing a set of Indicators

The indicators can be based on an analysis of the State, Pressure, Response model that is used for the State of the Environment Reporting. This is to be used in determining what type of indicator is appropriate for the particular issue or goal that is to be achieved. For example, the state of the vegetation in an area may be degraded and it may be under pressure from clearing for rural residential use. A response would be to introduce some type of control on the clearing of the land and this provides an indicator that can be measured. Another response could be to provide for the preservation of wildlife linkages and this could be an indicator of a response to the need to have biodiversity conservation.

> *"Whilst the indicators are rudimentary and over simplify the complexity of environmental responses to change, they provide an early warning device and general report card on the health of a catchment that allows a precautionary approach to be adopted in land use decision making."* (Cooper 1999)

When developing a set of catchment health indicators and measuring protocols, it is tempting to try and become too scientific and therefore the measuring system and indicator becomes very complex. The indicators listed below have been developed on the state pressure response framework of the State of the Environment (SoE) reporting. It is intended to put the indicators into a Development Control Plan and that these indicators will be measured and reported by the SoE Report. A DCP is preferred over a LEP because of the flexibility to amend them as they are refined. As stated above it is important to make the indicators and measures as simple as possible.

Indicators provide an early warning system about the health of the catchment. There is a need to provide some way of measuring the indicator to find out whether the catchment is healthy. Shellharbour Council has prepared a Rural LEP and DCP that have a set of indicators of catchment health in them.

> *"The need to consider cumulative impacts and provide feedback on the effectiveness of planning controls has lead to the development of very simple environmental indicators that may be linked to State of the Environment (SoE) reporting. The indicators are contained within the draft Rural Development Control Plan (DCP) and will hopefully be developed further to provide feedback on land use decisions and management practices within each sub-catchment. The indicators attempt to provide a measure of the environmental health of the sub-catchments and monitor movement towards or away from sustainable development and land use management."* (Cooper, 1999)

The indicators and measures don't have to be rigorously scientific because they are indicators of an unhealthy catchment. They should be used as a trigger for further detailed study if required. The response to an indicator of an unhealthy catchment is to identify the source of the problem. If it is a matter that requires development consent, the first thing to look at is the development control process to identify if implementing a condition of consent can solve it. If this cannot be used to solve the problem, it may be necessary to alter a DCP or LEP to require consent for the land use or put management controls in place to ensure that it does not continue to cause an unhealthy catchment.

Indicators have been developed for the Penrith Rural Lands Study which has recently been published.

Examples of the indicators are provided in tables 3.17 and 3.18 It should be noted that the Council already has a set of indicators in its State of the Environment Report. The proposed ones set out in the tables can be used to augment the existing ones.

Table 3.17: Examples of Catchment Health Indicators

Indicator	Measure	Method
Water Quality	Turbidity of waterway	An inspection is carried out on a regular interval at a specific location and if the water is turbid (that is brown) it is an indicator of unhealthy catchment. However if the stream is clear it is an indicator of a healthy catchment.
	Presence of BOD, E Coli, etc	Water testing is carried out on a regular basis at specific measuring points.
	Number of Macroinvertebrates	Water testing is carried out on a regular basis at specific measuring points.
	Recreational Water Quality for Primary Contact Recreation being Good	Analysis of the Recreation Water Quality Monitoring results on a regular basis.
	Nutrient build up in the waterways	Regular inspections are carried out and photographs taken of streams to assess the amount of algae and weed growth.
	Onsite Effluent Disposal failures	A register is kept of the number of notices issued to upgrade onsite effluent disposal systems by catchment.
Biodiversity	Number of Bird sightings	Bird sightings are collated by bird watchers in the community.
	Amount of Illegal Clearing	A register is kept of the number of complaints and occurrences of illegal land clearing in each locality.
	Preservation of Linkages	Linkages are measured every 2 to 5 years with the aid of aerial photography to see if the linkage has been enhanced or degraded.
	Community Involvement in Bushcare	Records are kept of the number of people who are involved in Bushcare activities and trees planted on private and public land.
	Enhancement of Linkages	Photos are taken at regular intervals of areas where a linkage has been planted as well as an inspection.
Soil Erosion and Sedimentation	Number of occurrences	A register is kept of the number of occurrences of soil erosion and sediment build up on public and private land.
Landscape	Obtrusive Buildings	Photos are taken at regular intervals from a standard point to see if any new buildings are intruding into the landscape.
Weed Growth	Amount of weeds present in streams and on the banks of streams	Visual inspection and photographs are taken of specified streams to determine the amount of weed growth.
Illegal Waste Dumping	Number of Complaints and incidences	A register is kept of the number of incidents of illegal waste dumping in each locality.
Illegal Landfill	Number of Complaints and incidences	A register is kept of the number of incidents of illegal land filling in each locality.
Land Contamination	Number of remediated sites	A register is kept of the number of sites that are remediated under the provisions of SEPP 55.
Air Quality	Number of Complaints received by Council.	A register is kept of the number of complaints received in each locality.
Land use Conflict	Number of Complaints	A record is kept of the number of complaints made about noise, dust and odour in each locality.

Table 3.18: Quality of Life Indicators

Indicator	Measure	Method
Social Justice	Concentrations of population.	Identify the adequate population base for each service type.
	Appropriate services available to all residents	For each target group count services available, method of access and rate of utilisation by target group. Consult with target group and service providers to determine services not provided and service issues.
	Adequate transport systems	Determine the utilisation of public transport and other sustainable transport modes by rural residents. Monitor traffic congestion on main rural Roads.
	Adequate service capacity	Assess the ability of the service to expand or change to meet future demand.
	Access to appropriate information	Assess the distribution, type and quality of information provided to the community. This should include the needs of people from non-English speaking backgrounds, those living in more remote areas and those requiring access to particular services.
	Provision of a range of housing choices	Assess the provision of affordable housing in the rural areas of Great Lakes.
	Networking within the community	Count the number and breadth of the networks and organisations that exist in the community.
Economic Development	Provision of local employment opportunities**.**	Determine the proportion of rural residents who work in the LGA through monitoring journey to work data from the ABS Census of Population and Housing.
	Support for local businesses.	Count the increase in new local businesses by surveying the Chamber of Commerce.
	Employment opportunities available	Survey the number and range of employment opportunities in rural areas. This should include number of employees, age profile, educational level etc.
	Adequate transport systems	Regularly assess the adequacy of the transport systems to allow rural residents to access employment opportunities in Great Lakes as well as other areas.
	Productive links between rural communities and the urban area	Provide information on the benefits of the rural areas to the urban community and then periodically survey the urban residents to assess their understanding of the rural areas.
Environment	Key environmental features of the community protected and enhanced	Assess the adequacy of protection by LEP and DCP of the key environmental features such as the rivers, lakes and biodiversity linkages within the rural areas.
	A physically attractive community with its identified lifestyle features maintained.	Assess the views of the community of the maintenance of the key features that the community find enhances their lifestyle.
	Integrated approach to addressing environmental, economic and social needs	Undertake regular Quality of Life surveys to determine whether all these issues are being addressed.

3.8. Incentives

The provision of economic incentives encompasses such things as a rate rebate, transferable development rights and purchase of development rights. They can be used for the preservation of agricultural land and agricultural production as well as biodiversity conservation, landscape preservation and heritage conservation.

The amounts of money paid by farmers for the Council rates is one of the largest single outlays for the farming business. The amount of rates charged is based on the value of the land. It has been noted previously that as the land becomes more desirable for a rural residential lifestyle, the value increases and this has a corresponding increase in the amounts of rates that the farmers must pay. However as this cost to the farming community has increased there has not been a corresponding increase in the value of the production and therefore this is causing an economic hardship for the farmers. One way to compensate the farmers for this is to offer a rate rebate. It is noted that council currently offers a rate rebate however this rate rebate should be a realistic rebate. This could be as much as half of the current rate or even more. This would have a corresponding impact on the other ratepayers of the urban areas in that their rates would increase.

Purchase of Development Rights involves a farmer selling the development rights to the farm to a government or non-government organisation. In return a covenant is taken out over the land to ensure that the land is only used for agricultural purposes. The purchase of development rights can also be used to require soil and water management to be undertaken on the property. The property is inspected at regular intervals to ensure that it is being used properly. Transfer of Development Rights occurs where land is declared to be in a preservation zone and kept for agriculture. The development rights to this land can be purchased by developers who whish to gain an increase in the development potential of land declared to be in a development zone. This may have potential negative impacts concerning the increase in the density of these areas. Both of these methods exist in the United States. Of the two, the Purchase of Development Rights is the more successful. Both are applicable to the Australian situation with the issues of Transfer of Development Rights already in existence for heritage sites in the city of Sydney. Its application to agricultural land is problematical under the existing EP&A Act because the Department of Infrastructure, Planning and Natural Resources is of the opinion that there are no rights to develop land in NSW, merely the right to lodge a development application which is then assessed on its merits. However, this issue needs clarification as there is a transfer of development rights scheme in the City of Sydney for the preservation of heritage buildings (mentioned above).

The provision of incentives for biodiversity conservation provides a good opportunity to conserve this important resource within the LGA. Financial incentives could be provided for people to conserve biodiversity on their property. The financial incentives could be by way of a rate rebate for people who have entered into an agreement with the Council to conserve and / or enhance a biodiversity linkage that has been identified. There would have to be a separate category for ecological significance and currently, there is no such categorisation in the Local Government Act. The only way that it could be applied at present would be through an environmental levy on all ratepayers that would include a component for biodiversity conservation. Once this has been collected, a financial assistance grant can be made under the provisions of section 356 of the Local Government Act. This is a complex way of achieving the outcome and it would be easier if there was to be an amendment to the act to insert a provision for a rating category for ecological significant land preservation. It would also be possible for the State Government to contribute to this, as the biodiversity resource is a regional and state significant one. For particular properties which have been identified as having potential for further development, it is possible that an incentive could be provided to the developer to gain a higher density for the conservation of specific parts of biodiversity or the provision of an enhancement of a biodiversity linkage. Such a scheme operates in the Hunter Valley Vineyards area of the Cessnock City Council where a density bonus is given for tourist accommodation in return for a planting of particular wildlife linkages.

There are significant policy and financial implications for the Council to consider if it is to embrace these. However, it should be discussed and considered.

3.9. Economic Development

Economic development is an important component for the rural living strategy. It is important to recognise the contribution of the existing rural economy to the LGA and the Council should take positive steps to encourage this. It can also provide policies that will allow them to expand.

In an area such as Great Lakes, the tourism market is mostly associated with the coastal parts. However, there is potential to utilise the inland parts for ecotourism and rural based tourism.

To enable the economic development to occur, there is a need to review the policies dealing with development applications for such uses as tourist facilities, bed and breakfast establishments and other tourist accommodation uses.

The area produces a variety of produce which can be sold to the local residents as well as the tourist. This can be done through the establishment of farmers markets.

3.10. Quality of Life

The quality of life of residents living in the rural areas is influenced by a number of things. These include the open environment in which they choose to live as well as the ability to move around and have ready access to services and facilities. The mere fact that a person lives in a rural area does not mean that they should have a substandard access to services and facilities. These include both Council and other Government services such as children's services, library services, Home and Community Care services for older residents and youth specific services. It also includes access to public transport and adequate recreation facilities.

An integral component of ESD is social sustainability. Social sustainability relates to establishing a balance between economic, social and environmental issues resulting in a better quality of life for the existing and future community. The NSW Office of Social Policy in its publication titled *Quality of Life- A Social Policy Approach* recommends that the following factors are integral to achieving this balance:

- *Social justice* needs such as equal access to education, health, welfare, personal safety, housing and broader community and cultural services and facilities
- *Economic development* particularly in terms of employment, quality of working life and personal economic situation
- *Environmental policy* related to the physical aspects of communities such as livability, community values and ecologically sustainable development.

Therefore there is a need to provide strategies that enable the quality of life of the residents to continue. To do this there is a need to first of all assess the needs of the community.

The provision of social networks and having a sense of identity is an important component of the quality of life. There are a number of facilities provided by the Council for use by the rural community. Some of these are not adequate for the needs of the community and there is a need to consult with the people who live in the rural areas to see what the deficiencies are and how improved access to services and facilities can be provided.

There is a need to recognise that in parts of the rural areas, although there is not a village as such, there is a community focal point that provides for some social interaction to occur.

3.11. Why Growth?

The question of why Council should accommodate growth needs to be addressed.

Great Lakes LGA is experiencing sustained growth, especially in its coastal areas, as can be seen from the population statistics contained in the Background Data Report (the main growth areas being Forster/Tuncurry, Pacific Palms/Smiths Lake and Tea Gardens/Hawks Nest). The reasons behind this growth, such as highway upgrades and the desire to live in coastal areas have been well documented in this Strategy. There is no doubt that Great Lakes' population will continue to increase in the future if land is made available for it to do so. The question posed is whether this growth should be catered for.

From an economic point of view, using an "economy-of-scale" system, it could be said that the larger the population, the greater is its ability to pay for its infrastructure needs. This includes roads, sewerage, water, public/community buildings etc. Obviously, there is likely to be a point where a population is too large (or physically spread out) and actually a negative effect on infrastructure costs occurs. With the settlement sizes in Great Lakes, no negative effect is likely to be seen with an increase in population in the foreseeable future.

From a social point of view, there can be a number of opposing views on this. Some people would like a settlement to maintain its size as this is why they located there, whilst others would like to see an increase in population to make businesses viable and provide more employment opportunities (which helps retain young people). Although the character of an area will change over time as its population increases, the social advantages are seen as outweighing the negative effects.

From an environmental point of view, as long as the principles of ESD are followed, there should be minimal environmental impact of catering for development. It is acknowledged that clearing for house sites, driveways and bushfire hazard reduction, combined with the possible impacts of effluent and stormwater disposal are likely to have a net environmental impact.

Development will always have some environmental impact, but if the principles of ESD and best-practice methods are followed, that impact can be minimised. This is why the Strategy recommends only the expansion of those settlements classified as a Town (as they have reticulated sewerage) and that the rural residential precincts (as well as later rezonings of individual properties) comply with the criteria established in the Strategy for this type of development. The minimum lot sizes for the two types of rural residential development are centred on the ability of each lot to effectively manage on-site effluent disposal, as well as vegetation management.

There are two main types of development catered for in the Strategy, village zone expansion and rural residential development. Although it is widely acknowledged that rural residential development is an inefficient development type compared to urban development (and that urban residents end up subsidising this type of development), it is still considered a legitimate type of development as it provides an alternative type of development to incoming (and existing) residents.

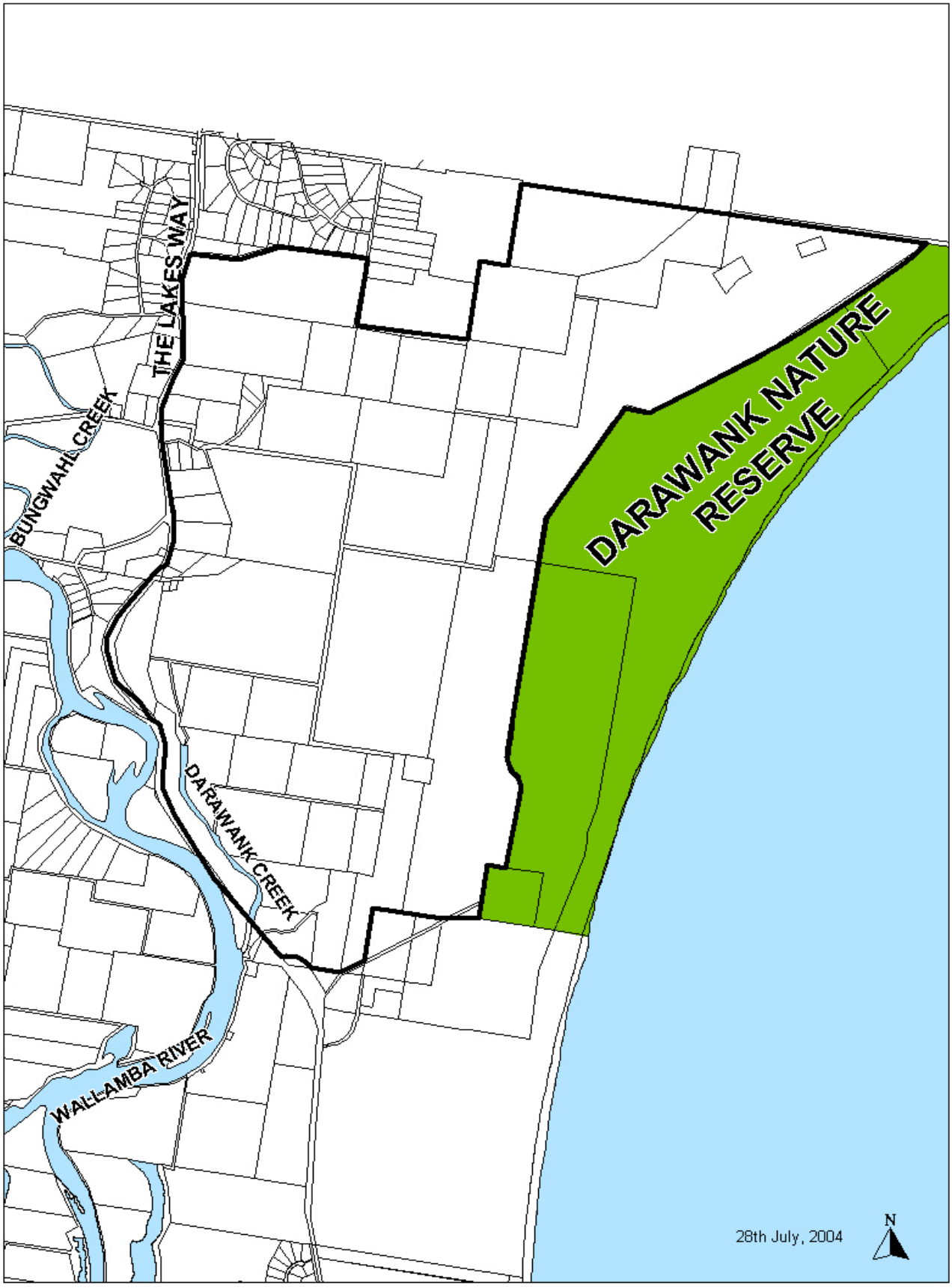
Council is aware of the demand for rural residential development because of the take-up rate of new rural residential subdivisions and the shortage of land in the vicinity of the main towns. Great Lakes is well located to meet this demand, it being within 3-4 hours travel time from Sydney and 1-1 ½ hours from Newcastle and the Central Coast. Not only does this allow people to be within what is seen as an acceptable distance for relatives to travel from Sydney to visit on weekends (or vice-versa), but also allows for people to commute to work in Raymond Terrace/Newcastle from the southern parts of the LGA. There is also the trend of the "move to the beach" that is outlined in Section 5.2 of the Issues Paper which is contributing to Great Lakes being targeted as a place to live.

Advances in "information technology" are allowing people to work from home, enabling them to live further from their employer, which has encouraged people to make a lifestyle choice in where they live. There are many other reasons why people are moving to Great Lakes, such as retirement, which creates a demand for a variety of development types.

It seems logical, therefore, to cater for this demand in locations where impact will be minimal and at sites closer to the main market. Otherwise pressure is placed upon other areas less suitable for growth. Hence, the philosophy of the Strategy to only nominate growth for rural residential development around service centres, and village zone expansion of those classified as Towns, on land deemed environmentally suitable.

The above discussion shows why catering for development is beneficial to the area, so long as any negative environmental impacts are minimised.

Map 4.8 : Darawank Creek/Frogalla Swamp Conservation Incentive Area



Part B - The Actions

Chapter 4: Vision and Strategies

A vision for the rural lands has been developed and is as follows:

> *To allow management of the growth of the Great Lakes rural environment, by achieving:*
>
> - *The preservation of the unique natural and cultural assets;*
> - *Protection of natural resources;*
> - *Balanced economic development;*
> - *A sustainable agricultural industry; and*
> - *Ecologically sustainable development*
>
> *so as to minimise cross subsidisation of rural residential development by the urban and agricultural community in the interests of all Great Lakes Residents, the broader community and future generations.*

The preparation of a set of specific strategies for the rural areas will help to achieve the stated vision and strategy of the Council.

This vision can be achieved by the adoption of the growth management philosophy, development principles, objectives, implementation strategies and policy actions that have been provided in this document.

4.1. Growth Management Philosophy

Growth Management is the mechanism by which the growth of an urban area is limited and controlled. One of the biggest issues to be tackled is the balance between urban consolidation (that is, the increase of existing residential densities) and the containment of urban sprawl. The Forster Tuncurry, and Tea Gardens Hawks Nest Strategies are a major contributor to the growth management philosophy because they provides the basis for, and limits to, urban expansion.

The growth management philosophy for the rural lands must consider the broader policy framework of the Hunter Regional Environmental Plan and other plans and policies affecting land use. It also must consider Ecologically Sustainable Development and Total Catchment Management.

The growth management philosophy for the rural lands of Great Lakes is:

- Limit expansion to those towns that have the capacity for growth;
- Provide for new rural residential development only where appropriate services can be provided and where environmental impacts can be minimised;
- Encourage and promote a diverse range of agricultural and other rural uses; and
- Embody the concepts of:
  - Ecologically Sustainable Development; and
  - Total Catchment Management including the actions of the Lower North Coast Catchment Blueprint 2003.

4.2. Development Principles

When considering the preparation of a strategy for the future of the rural lands, it is necessary to outline a series of principles under which development should take place. These are intended to be used by Council when it is considering development applications and proposals for the rezoning of land.

Principles for Development

- Consider the environmental capacity of the area and ensure development is consistent with the land capability. Issues to consider include:
    - Native vegetation;
    - Proximity to water courses; and
    - Slope of the land.
- Provide a choice of living opportunities and types of settlement.
- Ensure future development is within close proximity to established service centres
- Provide for the continued and improved social and economic well being of the community.
- Protect the water quality of the Karuah, Myall, Coolongolook and Wallamba Rivers and tributaries as well as the various lakes and Port Stephens.
- Where possible, improve the water quality and habitat throughout the region.
- Development should have regard to the natural values and features of Great Lakes.
- Promote a conservation philosophy for Great Lakes.

Chapter 5: Strategies for the Rural Lands

5.1. Introduction

The strategies listed below outline the matters that need to be considered when looking at the future of the rural lands of Great Lakes. They incorporate a vision and set of objectives.

The strategies have been grouped into the two categories outlined in section 3 and are as follows:

Social and Economic Factors	**Environmental Opportunities and Constraints**
▪ Growth Management ▪ Land Use Planning ▪ Quality of Life ▪ Economic and Employment Opportunities ▪ Infrastructure	▪ Water Catchments ▪ Ecological Management ▪ Scenic Landscapes ▪ Heritage and Culture ▪ Natural Hazards

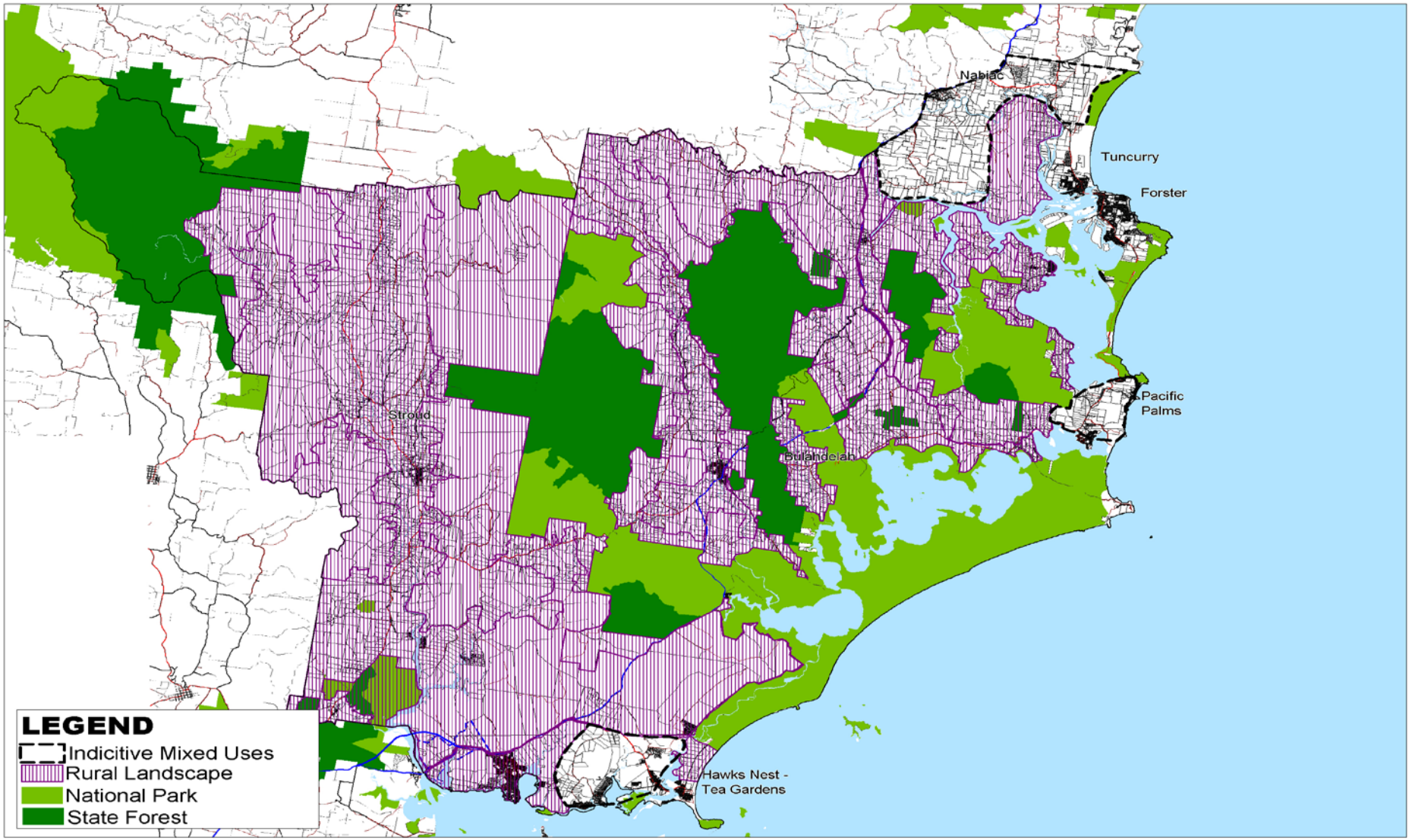
The implementation strategies expand on the objectives and state how they are to be achieved and point towards the policy and actions that are required to carry out the strategy. The policy actions outline the detail of the strategies and provide an indication of what work is required.

The timeframe has been selected to allow them to be built into the State and Local political processes and are broken into three sections:

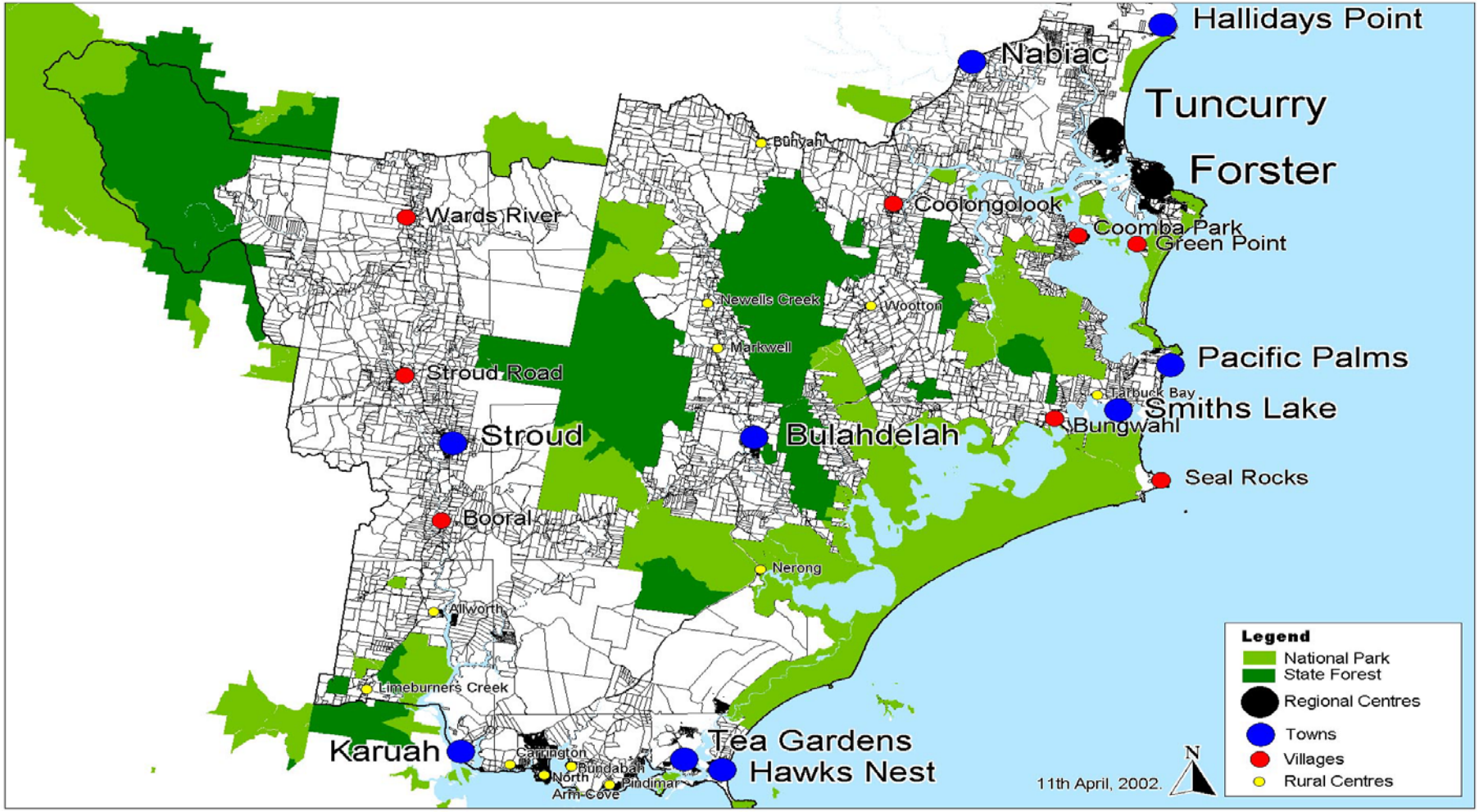
- *short term* which is nought to two years;
- *medium term* which is to two five years; and
- *long-term* which is five years and beyond.

It is helpful to provide a map that outlines the broad features of the strategy. Maps 4.9 and 5.0 do this and it should be read in conjunction with the following strategies. It should be noted that the proposed land use designation map does not show the Rural Fringe designations because of the scale of the map. Reference should be made to the relevant map in Chapter 3.

Map 4.9 : Proposed Rural Land Use Designations



Map 5.0 : Proposed Settlement Hierarchy



5.2. Social and Economic Factors

5.2.1. Growth Management

Objective: Provide for coordinated and effective growth in the rural lands.

Implementation Strategy	*Policy Action*		*Responsibility*	*Time-frame*
1. Promote a balanced approach to growth that provides for sustainable growth management.	1.1	Adopt the growth management philosophy outlined in section 4 of this document and which is shown on Map 4.9	Council	Short term and ongoing
2. Prepare a hierarchy of settlements based on Villages and Rural Centres.	2.1	Adopt the settlement hierarchy outlined in section 3.2 and shown on Map 5.0	Council and Government Agencies	Short term
3. Identify Investigation areas that are to consider further development and will require rezoning.	3.1	Adopt the following village expansion areas as outlined on maps 3.2, 3.6, 3.8, 4.0 ▪ Bulahdelah ▪ Stroud ▪ Nabiac ▪ North Karuah	Council	Short to medium term as supply of vacant land that can be built upon dimini-shes
	3.3	Prepare a draft LEP for the village expansion and rural residential investigation areas as land supply is depleted eg. less than 5 years supply.		
	3.4	Develop a land monitor based on land release and dwelling approvals for each precinct.		
	3.5	One Draft LEP, LES and DCP is to be prepared for each precinct.		
	3.6	Land outside the precincts identified on the maps, but which is within the catchments identified may be considered for rezoning after the land in the relevant precinct has been developed as long as it meets the specified development standards.		
4. Provide for the economic and social growth of the rural areas and in particular, maintain and enhance rural job opportunities.	4.1	Prepare Strategies for the economic and social growth in the rural areas of the Great Lakes LGA.	Council and Government Agencies	Medium term
	4.2	Prepare a LEP to give effect to the method for rural tourist development as set out in the strategy	Council and Government Agencies	

5.2.2. Land Use Planning

Objective: Develop a land use framework that will give a level of certainty to the people who live in the rural areas of the Great Lakes LGA

Implementation Strategy	*Policy Action*	*Responsibility*	*Time-frame*
1. Develop a new suite of land use designations.	1.1. Adopt the following land use designations as outlined on map 4.9, 3.3, 3.4, 3.6, 4.0, 4.2 and 4.4 ▪ Agricultural Landscape ▪ Rural Fringe ▪ Rural Mixed Uses ▪ Rural Lifestyle ▪ Large Lot Urban ▪ Villages ▪ National Parks and Nature Reserves ▪ State Forest 1.2 Prepare a draft LEP to formalise these as statutory zones. 1.3 Water supply catchments for surface and groundwater extraction for drinking water to be shown as hatched on zoning maps and protection of these environmental assets included in the LEP.	Council and Department of Infrastructure, Planning and Natural Resources	Short term
2. Create separate land use zones over the villages of Nabiac, Bulahdelah and Karuah.	Prepare draft LEP's taking into account character statements for each of the villages.	Council	Short – medium term
3. Include in each land use designation a set of desired future character statements which will provide the basis for the objectives of each zone.	2.1 Prepare a set of desired future character statements for each of the land use designations which address the following matters: *2.1.1 Agricultural Landscape* ▪ Preservation of the open rural landscape and its cultural heritage values. ▪ Maintenance of large holdings. ▪ Provision for both intensive and extensive forms of agriculture ▪ Buildings to blend into the landscape. ▪ Protection and improvement of water quality. ▪ Preservation and enhancement of native vegetation, including habitat linkages. ▪ Protection of the amenity of existing residents. *2.1.2 Rural Mixed Uses* ▪ Preservation of the open rural landscape and its cultural heritage values. ▪ Maintenance of large holdings. ▪ Provide a greater variety of land uses.	Council	Short term

Implementation Strategy	*Policy Action*	*Responsibility*	*Time-frame*
	▪ Buildings to blend into the landscape. ▪ Protection and improvement of water quality. ▪ Preservation and enhancement of native vegetation, including habitat linkages. ▪ Protection of the amenity of existing residents ▪ Not to permit resubdivision of the land *2.1.3 Rural Fringe* ▪ Protection of the amenity of existing residents. ▪ Uses to be compatible with residential living areas. ▪ Provide for residential living in more of a rural atmosphere. ▪ Buildings to blend into the landscape ▪ Protection and improvement of water quality; ▪ Preservation and enhancement of native vegetation, including habitat linkages. ▪ Prohibit intensive agricultural pursuits ▪ Not to permit resubdivision of the land ▪ Maximise lot yield, dependant upon constraints of the land, by ensuring that lots meet the minimum lot size. *2.1.4 Rural Lifestyle* ▪ Protection of the amenity of existing residents. ▪ Uses to be compatible with residential living areas. ▪ Provide for living opportunities in a very low density rural atmosphere. ▪ Buildings to blend into the landscape ▪ Protection and improvement of water quality; ▪ Preservation and enhancement of native vegetation, including habitat linkages. ▪ Prohibit intensive agricultural pursuits *2.1.5 Village* ▪ Retain rural village character. ▪ Ensure that new dwellings respect the character of surrounding dwellings. ▪ Provide for uses that meet the needs of the village's hinterland. ▪ Ensure new residential development has regard to the scale and form of existing development. ▪ Identify the unique opportunities presented by each village in Local Area Plans. ▪ Assess capacity of main infrastructure to accommodate growth in the village. *2.1.6 National Parks and Reserves*		

	Implementation Strategy	*Policy Action*	*Responsibility*	*Time-frame*
		▪ Manage and use the land consistent with the objectives of the National Parks and Wildlife Act.. *2.1.7 State Forest* ▪ Conserve and manage the land for forestry operations.		
3	Identify minimum lot sizes that will enable the continuation of the use and which are appropriate to the zone.	3.1 Adopt the following lot size minimum for the corresponding land use designation: ▪ Agricultural Landscape 40 hectares ▪ Rural Mixed Uses 40 hectares ▪ Rural Lifestyle 2-5 hectares ▪ Rural Fringe 1 hectare ▪ Investigate reduction of the minimum lot size for eerction of dwellings and subdivision in the proposed Rural Mixed Use designation. Investigations to include cumulative impacts from a reduced lot size as well as ecological, social and economic factors.	Council	Short term
4	Prepare management guidelines for land uses in rural areas.	4.1 Prepare a Development Control Plan to provide effective and appropriate land use management guidelines for rural land.	Council	Short term
5	Provide controls and management requirements for specific land uses that are considered to be non-sustainable or problematic.	5.1 Prepare specific controls for the following land uses and define and regulate them in a new rural LEP and DCP as set out in the strategy: ▪ Dual Occupancies ▪ Farmgate Sales ▪ Intensive Animal Establishment ▪ Intensive Plants ▪ Rural Residential development ▪ Rural Tourist Development ▪ Land Clearing The definitions are outlined in 3.5.3	Council	Short term
6	Prepare guidelines for the development of the individual Rural Fringe areas	6.1 Prepare place based DCPs/structure plans for each individual area to be done in conjunction with the rezoning of the land		

5.2.3. Quality of Life

Objective: Ensure that residents have adequate access to and equity for the provision of services and facilities.

Implementation Strategy	*Policy Action*	*Responsibility*	*Time-frame*
1 Assess the adequacy of the services and facilities provided to the people who live in the rural parts of Great Lakes.	1.1 Carry out a survey and consultation program with the people living in rural areas to ascertain their needs. This is to be done in conjunction with the Social Plan.	Council and State Government	Short to medium term
2 Recognise and support the cultural diversity of the Great Lakes LGA.	2.1 Develop plans to ensure that the cultural diversity of the Great Lakes is preserved and fostered.	Council, State and Federal Government and Community	Short to medium term
3 Monitor the provision of services and facilities for the people who live in rural areas to ensure that they are receiving adequate level of service.	3.1 Prepare a set of Quality of life indicators which can be measured and used to assess the level of service provided to the people of rural areas. This is to be done in conjunction with the Social Plan.	Council and State Government	Short to medium term

5.2.4. Infrastructure Requirements

Objective: Provide an adequate level of infrastructure for the people who live and work in rural Great Lakes.

Implementation Strategy	*Policy Action*	*Responsibility*	*Time-frame*
1 Ensure that the most appropriate sewage disposal system is provided for all land in the rural areas	1.1 Adopt a policy of not permitting subdivision of rural land less than 1 ha unless it can be connected to a reticulated sewerage system. 1.2 Adopt a policy of not permitting a connection of reticulated water to a lot if it is not connected to a reticulated sewerage system	Council and Mid Coast Water	Short to medium term
2 Ensure that there are adequate Community facilities to house the required level of social services.	2.1 Develop and implement action plans for the rural villages and centres to ensure that the appropriate levels of infrastructure are provided. This is to be done in conjunction with the Social Plan.	Council and Government Agencies	Short to medium term
3 Ensure that Recreation facilities are adequate to serve the needs of the residents of rural areas.	3.1 Develop and implement action plans for the rural villages and centres to ensure that the appropriate levels of infrastructure are provided. This is to be done in conjunction with the Parks and Recreation Department.	Council and Government Agencies	Short to medium term
4 Ensure that the Roads are adequate for the amount of existing and future traffic demands	4.1 Prepare, in consultation with the NSW Roads and Traffic Authority, an Access Management Strategy for the Pacific Highway. 4.2 Prepare a road upgrading program in consultation with the Traffic Committee and local residents and section 94 Contribution Plans.	Council and Government Agencies	Short to medium term

5.3. Environmental Opportunities and Constraints

5.3.1. Water Catchments

Objective: To ensure that the quality of surrounding waterways is not adversely affected by development.

Implementation Strategy	*Policy Action*	*Responsibility*	*Time-frame*
1. Consider the cumulative impact of development on the catchment.	1.1 Implement the recommendations of the Wallis Lake Catchment Management Plan. 1.2 Consider applying the recommendations of the Wallis Lake Catchment Management Plan to the Karuah and Myall catchments. 1.3 Establish a set of Catchment Health Indicators by which the cumulative impact of development can be measured and managed.	Council and, EPA, DLWC	Short Term
2. Ensure development does not increase the sedimentation load in surrounding water bodies.	2.1 All development is to utilise best management practices for soil and water management on the site.	Council	On-going
3. Ensure new development is located so it does not have a detrimental impact on nearby water bodies.	3.1 All development to be located an appropriate distance from waterways and develop means of protecting riparian zones. 3.2 Rezoning of precinct adjoining waterways requires the active involvement of DIPNR	Council	On-going
4. Ensure Domestic and other forms of Effluent Disposal does not have a detrimental impact on water quality.	4.1 On-site effluent disposal is to be in accordance with a DCP dealing with On-site Sewage Management for each Rural Mixed Uses precinct and the NSW Environment and Health Protection Guidelines for On-site Sewage Management for Single Households.	Council	On-going

5.3.2. Ecological Management

Objective: To ensure that the ecological integrity of the rural lands are enhanced and maintained.

Implementation Strategy	*Policy Action*	*Responsibility*	*Time-frame*
1 Recognise and understand the biodiversity values of rural lands.	1.1 Prepare plans linking core areas of remnant vegetation to facilitate species migration. 1.2 Establish a land use and management approach consistent with State, regional, local biodiversity goals, including Regional Vegetation Management Plans and Catchment Blueprints 1.3 Review hierarcchy of current environmental protection zones and other measures to protect significant biodiversity areas as identified in the Strategy.	Council and Government Agencies in partnership with the community	Short term and ongoing
2 Preserve the existing biodiversity habitat on private lands throughout rural areas.	2.1 Identify and protect significant linkages of native vegetation. 2.2 Refine the current key habitat linkage mapping in association with the National Parks and Wildlife Service. 2.3 Provide development/conservation incentives to developers for the protection of significant habitat. 2.4 Prepare LEP to give effect to conservation incentives/development offsets concept for Darawakh Swamp.	Council and National Parks and Wildlife Service	Short term
3 Encourage the State Government to continue to investigate and identify the biodiversity values of Great Lakes	3.1 Implement actions in the NSW Government Biodiversity Strategy that have identified Great Lakes Council as a lead organisation, the Australian Local Government Biodiversity Strategy	Council	Medium term
4 Increase awareness and involvement in identifying, protecting and enhancing biodiversity	4.1 Prepare guidelines for tree / vegetation evaluation including use of the 8 part test for significance under the provisions of the Threatened Species Conservation Act (for DA Assessment). 4.2 Commission Corridor Stratergy to refine & amend NPWS data	Council and Government Agencies in partnership with the community	Short term and ongoing

5.3.3. Scenic and Landscape

Objective: Ensure that development has a minimal impact on the scenic and cultural landscape of Great Lakes LGA

Implementation Strategy	*Policy Action*	*Responsibility*	*Time-frame*
1 Incorporate the preservation of landscape into a development control plan for rural areas.	1.1 Ensure that dwelling houses and outbuildings in rural areas are classified as local development under the provisions of the Environmental Planning and Assessment Act. 1.2 Develop guidelines for the siting and design of buildings in the rural landscape.	Council	Short term and ongoing

5.3.4. Heritage and Culture

Objective: To preserve the rural heritage and culture of Great Lakes.

Implementation Strategy	*Policy Action*	*Responsibility*	*Time-frame*
1. Protect and enhance the recognised heritage values.	1.1 Prepare guidelines to ensure that the heritage values of the landscape are preserved and not harmed by development and incorporate these into a LEP and / or DCP for the rural areas. 1.2 Revise Stroud Heritage DCP to incorporate new rural residential and village expansion precincts.	Council	Short term
2. Identify the Aboriginal Heritage significance of Great Lakes	1.3 Carry out an Assessment of the Aboriginal Heritage of the LGA, in consultation with local Aboriginal groups, with the aim to prepare planning guidelines to ensure that it is protected.		
3. Promote and support the rural culture of Great Lakes	1.4 Publish information on heritage items and include in community and tourist information 1.5 Support cultural and tourist activities which promote rural heritage eg local shows, agricultural days, heritage tourist trails etc	Council	Short term
4. Provide incentives to protect the heritage values.	1.6 Encourage landowners to carry out a heritage curtilage study and conservation plans of historic homesteads including homestead gardens.	Council	

5.3.5. Natural Hazards

Objective: Recognise the impact of natural hazards on future land use and settlement.

Implementation Strategy	*Policy Action*	*Responsibility*	*Time-frame*
1. Ensure bush fire risk is considered in all future settlement areas.	1.1 Identify and implement the strategic fire protection zones as contained in the Bushfire Risk Management Plan..	Council	Short term
2. Ensure that land degradation is minimised.	2.1 Do not allow development to occur on land where vegetation clearing will cause erosion.		
3. Minimise the potential for acid sulphate soils to cause a hazard	3.1 Implement Acid Sulphate Soils LEP.		
4. Identify the flooding of land as a constraint to future development.	4.1 Implement the findings of the Floodplain Management Studies and Plans for the respective lakes and rivers		

Chapter 6: Conclusion

The rural lands of Great Lakes are an important component of the LGA. They provide both a productive economy as well as a scenic rural landscape which attracts a large number of people to the area to live in the urban and rural environments. The supporting documents have highlighted the need to prepare a set of strategies which will ensure that the rural lands are sustainable in the long term.

A growth management philosophy has been outlined which reinforces the desire to remain sustainable. A set of development principles have been prepared to guide future development to ensure that it achieves the balance between a productive economy, social sustainability and minimising environmental impacts. The strategies prepared canvas the areas of social and economic factors and environmental opportunities and constraints within the local government area.

It is now necessary for the Council to implement the strategies outlined in this document so that development in the rural areas can be sustainable into the future and the rural lands continue to make a positive contribution to the identity and social fabric of Great Lakes.

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Appendix – Land Use Methodology for Rural Land

The following method was used to identify the land use designations recommended in chapter 3.

Data Gathering

Land Use Survey
Lot size analysis
Slope mapping
Fauna And Flora Study / Vegetation cover
Soils mapping
Drainage and Catchments
Agricultural land classification
Landscape features
Water quality and quantity

Identify Constraints

Urban expansion areas
Rural residential areas
Intensive agricultural uses
Land use conflicts
Native vegetation areas
Water courses
Steep land

Identify Land Units

Similar topographic features
Clusters of land uses

Assess Agricultural Potential

Identify high class land
Rank areas for land uses
Identify lot sizes and land uses

Consider the Appropriate Zone

Agriculture
Mixed Use / Agricultural landscape
Nature conservation
Rural living
Rural Lifestyle
Rural Fringe