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Section 1: Review findings & recommendations

This report presents the findings of a review of existing Rural Smallholdings and Future Urban land uses in the Bega-Tathra-Wolumla subregion. A settlement strategy will evolve out of this review and will be incorporated into a comprehensive Shirewide Residential Settlement Strategy, to be completed following reviews of other subregions and rural lands.

The general conclusions, Bega-Tathra-Wolumla settlement strategy and specific recommendations of the Review are outlined in this section. The details of the Review that led to these findings are contained in the sections that follow in this Report.

General findings

- At three times the area of the existing settlements, the Future Urban zones at Bega and Wolumla have been assessed as requiring a greater degree of definition to encourage appropriate future development. New opportunities for both urban and rural smallholdings development in the Future Urban zones around Bega and Wolumla need to be made available.
- This will provide land use options that are currently popular and in demand but undersupplied, as well as encourage more sustainable and economically manageable residential growth in the subregion. Specific rezonings have been recommended in line with identified needs and constraints.
- The Land and Housing Monitor suggests that there is an adequate supply of urban lots in the subregion for the next two decades. However, a number of infrastructure, environmental, and market constraints suggest that if past patterns of demand continue new urban subdivisions need to be encouraged around the existing inland settlements of Bega, Kalaru and Wolumla.
- The staging of new subdivisions in these three settlements will provide a window of time for adequate planning of village thresholds in the context of the PlanFIRST framework and a Shirewide Residential Settlement Strategy. Similarly the impact of both the upgrading of village servicing and the recommendations of this report should be observable over the next 10-15 years.
- On the basis of existing zoned potential, there would appear to be an adequate supply of Rural 1(c) Smallholdings land in the subregion to meet demand for at least the next 20 years. In reality, the market availability of new subdivisions in these zones continues to be constrained. This has resulted in a “tight” market and perceived lack of supply, particularly in more popular zones closer to towns and villages. Council needs a strategy to ensure supply from the current zones.
- This review has recommended an adjustment of land around Bega and Wolumla for rural residential 1(c). The exact areas are discussed in detail in the report. On the other hand, land has been rezoned for a range of other uses albeit open space, industrial and mixed use. Also a large amount of land has been identified as Investigation land and referred to the Rural Lands Review. This is because the current zoning of the land is not appropriate
given environmental and planning constraints. Most of this land has not as yet been
developed in line with its zone potential.

- Apart from the specific recommendations in the report, no new rural smallholdings zones
  should be considered until the outcomes of the Rural Lands Review are known, the
  reassessments above are completed, and the impact of both the increase in the availability
  of serviced urban and village lots and limitations on further coastal subdivisions become
clearer.

- It is recommended that a new land use control be created, in part to “hold” or freeze
  subdivision of land that is subject to an investigation such as is recommended here. There
  are precedents in other Shires of a “Rural Investigation” zone. In this instance land will be
  identified as investigations land on the study map. There will be a freeze on the subdivision
  of this land to enable it to be included in the Rural Land Review.

- There is a need “to minimise the cost to the community of fragmented and isolated
  development” and to consolidate development with existing settlements. In particular, this
  review has concluded that the feasibility of creating alternative rural living zoning options
  other than the two options currently available under LEP 2002 – i.e. Rural 1(a) and Rural
  1(c). Changing farming practices and environmental and conservation concerns suggest
  that subdivision options other small “periurban” rural residential lots or very large farm
  holdings, are now required. This is primarily a task for the coming Rural Land Review.

- New opportunities for industrial development in the subregion are also required. It is
  recommended that these be provided around the major centre of Bega. The review has
  identified land for industrial and mixed use development. In subsequent planning reviews
  (say 10 years time) the provision of some rural industrial opportunities at Wolumla may be
  considered on the basis on changes in agricultural activities.

**Sub-regional settlement strategy**

This study has suggested a number of strategies for a residential settlement strategy for the
Bega-Tathra-Wolumla subregion over the next twenty years. These strategies will be
incorporated in a Shire Rural Settlement Strategy to be finalised following other subregional
reviews and revised following the Rural Lands Review. The principles outlined in the Lower
South Coast Settlement Strategy (1997) for underpinning urban and rural residential
settlement strategies have been taken into account.

**Proposed Settlement Strategies for Bega-Tathra-Wolumla**

**Urban Settlement**

1. That no new urban or village-type settlements be established in the subregion before 2021.

2. That Bega be reinforced as the major population and service centre for the sub-region with the
   most potential for employment, educational opportunities and industrial development.

3. That Wolumla and Kalaru be reinforced as the primary villages for serviced rural living
   opportunities in the subregion and areas for future expansion be clearly identified and subject to
   staged, planned development.
4. That the sensitive coastal settlements of Tathra & Mogareeka be limited to their current zone boundaries and any growth be limited to vacant lots and infill development and capped by the capacity of the upgraded sewerage treatment system. That as part of a separate study the Tathra River Estate be the subject of a zone review and masterplan process.

**Rural Residential Settlement**

1. That as far as practicable, future rural residential development be consolidated with existing urban centres and villages.

2. That future rural residential development preferably be limited in sensitive coastal and forest environments, and water catchments in particular.

3. It is preferable that existing smallholdings zones be nearing development capacity or reviewed and rezoned more appropriately before new zones are created. Such a strategy is aimed at encouraging the most efficient use of existing and new service infrastructures and at reducing the environmental footprint of rural settlements and their impact on agricultural viability.

4. That as a general principle, the creation of new rural smallholdings zones be justified by a supply and demand analysis in the context of the Shirewide Settlement Strategy.

5. The location of any new smallholdings zones be based on sound and reasoned application of the principles outlined in a Shirewide Settlement Strategy, or until then, the Lower South Coast Settlement Strategy prepared by PlanningNSW (then DUAP).

**Specific recommendations**

**Bega Future Urban Zone**

As a result of this study of the Bega-Tathra-Wolumla subregion, the following proposals for rezoning of the Future Urban Zone south of Bega are recommended to facilitate its appropriate residential and non-residential use.

**Residential**

1. The small “Rawlinson Street 2(f) Zone” and the “Tarraganda Lane 2(f) Zone” be rezoned for residential development, a total of 5.5 ha.

2. 100 ha of the Bega South Future Urban Zone around the south-eastern end of the current town boundary be rezoned to residential.

3. Lot 1/512378 (9 ha) be rezoned to residential (special) to provide a buffer between the proposed future residential and future industrial zones.

4. 130 ha of land in the south east corner of the zone be identified as Investigation Land due to its topographic and servicing advantages.

**Rural Smallholdings**

5. A 1(c) Rural (Smallholdings) zone of 67 hectares be created on the western side of the Princes Highway, incorporating the existing 18 ha Applegum Close smallholdings subdivision and to provide an additional area for development close to the township. As far as possible, this subdivision will need to utilise existing access points onto the Princes Highway.

6. 94 ha of the smallholdings subdivision at Max Slater Drive be rezoned to 1(c) Rural Smallholdings with the remaining 12-15 ha to be rezoned for environmental protection/riparian buffer. This smallholdings rezoning is a logical extension of the existing Black Range/South Bega smallholdings zone and one which reflects existing development approval and actual use.
Industrial/Commercial land

7. Creation of a second 4(a) Industrial zone on 26 ha of minimally constrained land south of Boundary Road and bounded by East Street and Tathra Road. (Lot 1 DP 953883)
8. Expansion of the existing 4(a) Industrial zone in Park Street Bega subject to environmental assessment and flood mitigation works.
9. 34 has of land bounded by the Princes Hwy, Boundary Rd and the Old Bega Hospital Cultural Centre be rezoned as mixed use, and a DCP prepared for this precinct.
10. 66 ha north of Kerrisons Lane and including the Bega Saleyards, Country Energy and a waste disposal business along Kerrisons Lane be rezoned to mixed use, and a DCP prepared for this precinct.

Environmental Protection

11. Approximately 108 ha of land along the eastern side of the Bega River be rezoned 7(b) Environmental Protection (Foreshore) to create a riparian corridor/ environmental protection buffer. Such buffer to extend 100m from the river’s edge or the Estimated 100 Year Floodline, whichever is the greater. This zone will include 12-15 ha of remnant vegetation and river corridor of the Max Slater Drive subdivision lot in the southwest corner of the zone, as recommended above.
12. Ensure that rigorous onsite stormwater, septic and drainage assessments are applied for any future developments on the land to the west of the Princes Highway at south Bega.

Other zonings

13. Lot 100//847067 (1 ha) on Rawlinson Street be rezoned to Public Open Space as it is a wetland along a drainage depression within a residential zone and is to be dedicated to Council as public reserve.
14. The 18ha along the Princes Hwy dedicated to the Cemetery and Travelling Stock Route be rezoned to 5(a) Special Uses.
15. The remaining Future Urban Zone be rezoned to Rural 1(a). Some of this land may be required for urban development in the long term future. In the meantime, Rural 1(a) would permit a range of agricultural and related activities to continue.
16. The current zoning of the privately owned lots 1//724268 and 2//401297 in Bega be rezoned to residential 2(a); a development control plan be created for these lots specifying areas not suitable for residential development given the flood line affectation.
17. That a development control plan be prepared to provide further detail of lot layout density and control for the South Bega release area.
18. That s94 contributions plans be prepared for the south Bega release area.

Bega-Tathra Rural 1(c) Smallholding Zones

19. The current North Bega Town 1(c) zone be reduced from 49 ha to 26 ha as follows:
   - 17.7 ha of the Bega Town 1(c) zone below the Estimated 100 Year Floodline be rezoned to Rural 1(a); (it is Class 3 agricultural land ¹),
   - 4.5 ha of the southern part of the zone be rezoned to 4(a) Industrial to reflect actual and adjoining uses and link to the small industrial zone around the original Bega Cheese factory and Heritage Centre.

¹ Agricultural Land Classification Atlas, NSW Agriculture
0.8 ha of Rural 1(a) land adjoining the northeast corner of the zone be rezoned to 1(c), this will provide a link with the smallholdings zone to the west of the highway.

20. The current North Bega 4(a) Industrial Zone west of the Princes Hwy be extended westwards into the Rural 1(c) zone to the 40m contour line (approx. 8 ha of lot 1A/750190).

21. 716 ha of land in the Coopers Gully/Buckajo/Bega zone be referred to the Rural Lands Review for reassessment of its zoning. In the meantime this land will become investigations land. The reassessment should also consider options for achieving protection for the remaining vegetation remnants and remaining mature trees in this zone and their function as part of a larger flora and fauna corridor.

22. 78.5 ha of farmland in the Tarraganda zone be rezoned to Rural 1(a) to reflect its current and anticipated future use; 13.3 ha of 1(c) land and 7.4 ha of 1(a) land owned by the Bega RSL at Tarraganda and used for a golf club be rezoned to 6(c) Private Open Space.

23. 19.7 ha of land north of Kerrisons Lane and including the Council saleyard lot be rezoned to permit mixed use development that will more accurately reflect current land use.

24. 126 ha of forested Rural 1(c) land to the north, and east of Kalaru village be referred to the Rural Lands Review for reassessment of its zoning. In the interim, this land will become investigations land.

25. 12 ha of cleared land adjoining the northern boundary of the Kalaru village zone, be rezoned to 2(v) Village; however, no village density development should be approved for this land until such time as sewerage is available.

26. 370 ha of land in the Wallagoot/Bournda zone be referred to the Rural Lands Review for reassessment of its zoning if the current application for a 121 Community Title subdivision does not proceed for any reason. In the interim this land will become investigations land.

Wolumla Future Urban & Rural 1(c) Smallholdings

The following strategies for further development in the Wolumla locality are made in recognition of the environmental sensitivity of this water catchment area, and the remnant and riparian vegetation that remains.

27. 32 ha of the Future Urban zone be rezoned for Village development, including an area of approx. 9 ha of riparian vegetation where dwellings not be permitted; development of this land deferred until after the village has been sewerage and demand requires it, in order to maximise infrastructure efficiencies.

28. 11.9 ha of the Future Urban zone east of the Princes Highway currently part of an extractive buffer and including quarrying activities be rezoned to Rural 1(a).

29. Rezone the remainder of the Future Urban land east and west of the Princes Highway and north of the Candelo Wolumla Road to Rural 1(c), including 18 ha of remnant vegetation of conservation significance and recommended for protection.

30. The 66 ha of the Future Urban Zone south of Candelo Wolumla Road be referred to the Rural Lands Review for reassessment of its suitability for rural residential or village development; in the meantime, Council defer consideration of any subdivision or dwelling applications on this land. Accordingly this land will become Investigations Land.

31. Environmental and riparian buffer protection be provided for Frogs Hollow Creek and its upper limits/drainage lines and the Frogs Hollow Swamp area and its remnant vegetation, including prohibiting dwelling development. This recommendation primarily involves around 67 ha of lot 700/1027401. Further consultation needs to occur with the Department of Land and Water Conservation regarding the nature of such protection and the most appropriate mechanism for achieving it.
32. In order to minimise environmental impacts and water extraction issues, no further subdivision be approved for the Rural 1(c) zoned land south of Candelo Wolumla Road and east of South Wolumla Road.

33. Prior to a decision regarding the siting of the Sewerage Treatment Works for Wolumla, no dwellings be approved on that part of 700//1027401 north of Frogs Hollow Creek and currently zoned Rural 1(c):

34. Future development of the land in the current Future Urban zone and the adjoining Rural 1(c) zone be subject to a Masterplan detailing such things as staged subdivision release of new village lots, village stormwater management strategies, larger village lot sizes around riparian buffer areas, areas where dwellings are not permitted, and 1(c) lot subdivisions that minimise the number of water extraction rights to Frogs Hollow Creek.

35. The specific strategies identified by this Review for guiding future development in the Wolumla area be implemented (see Section 4 for details).

Other Recommendations

36. Creation of an Investigations Land category in the Local Environmental Plan to freeze the subdivision of certain land until a comprehensive environmental and planning assessment of potential is completed as part of a separate study. This control mechanism would assist in preventing the sterilisation of land use or zoning options. There are precedents in other Shires of this type of zone.

37. The current zoning of the privately owned lots 1//724268 and 2//401297 in Bega be normalised by rezoning the 1.73ha currently zoned as 6(a) Existing Open Space to Residential 2(a); a Development Control Plan be created for these lots specifying areas not suitable for residential development.
Section 2: Overview

Introduction

The Bega Valley Shire has experienced significant growth in the past and the Bega-Tathra-Wolumla subregion is one of three residential “hotspots” in the Shire. The urban settlements of Bega, Kalaru, and coastal Tathra and Mogareeka form the major settlement node for this sub-region. Wolumla and Wallagoot along the southern end overlap with the Merimbula-Pambula “hotspot”.

In the past there has been a general assumption that each town and village can continue to grow as demand requires, or that rural land parcels no longer worked or profitable can be carved up and used for rural residential lots. In recent years a better understanding of the environmental, economic, social and land use impacts of, and constraints on, residential development has been gained. While zoning has placed some restrictions on residential development, the review aimed to assess what currently exists in the context of this understanding, and to develop a strategy for managing future development in an informed and sustainable manner.

The aim of this review was specifically to assess and make recommendations on:

a. the current rural residential and future urban land supply and, if necessary, identify new areas for rezoning;

b. the current use of over 1000 ha of Future Urban zoning at Bega and Wolumla and demand for rezoning it for specific uses;

c. land for future industrial use in the subregion;

d. a residential settlement strategy for the subregion.

Review Background

The review implemented a strategic action identified in the Local Strategy for Residential and Rural Residential Land Supply 1997. This Local Strategy was endorsed in 1997 by both Council and the Director General of PlanningNSW, then the Department of Urban Affairs and Planning (DUAP). This Local Strategy was prepared to implement the 1997 Lower South Coast Regional Settlement Strategy prepared by the DUAP.

The review was undertaken bearing in mind the broader State government planning and policy context. This context includes the PlanFIRST framework being developed by PlanningNSW, the NSW Coastal Policy, Bushfire Management Policy and the principles for urban and rural residential settlement outlined in the State Government’s Regional Environment Policy. The specific settlement issues and areas of regional environmental significance identified in the Lower South Coast Regional Settlement Strategy 1997, as they related to the Bega-Tathra-Wolumla subregion, were also addressed (see Appendix for details). Also taken into account were the Development Control Plans (DCPs), past planning reports, studies and policies of the
Bega Valley Shire Council. (see Appendix for list of DCPs relating specifically to the study area).
MAP 2
BEGA TATHRA WOLUMLA STUDY REGION
Rural Smallholdings & Future Urban Zones
Review Objectives

In establishing the framework for future residential development in the Bega-Tathra and Wolumla subregion, the review aimed:

a. to balance supply and demand to more adequately reflect the potential of the land and anticipated market trends;

b. to make efficient use of existing service infrastructure and ensure that the future extension of services is not beyond the capacity of Council;

c. to clearly identify future land use opportunities that are sensitive to the environmental constraints of the land and the economic and social needs of the community;

d. to appreciate the character of local areas and residents, and their aspirations for the future of their communities;

e. to take into consideration the relationship of the various localities with surrounding communities and within the regional context.

Review Methodology

In reviewing existing and future supply and demand for residential lots, this study employed a Land and Housing Monitor. This Monitor documents, at a particular point in time, all known land lots, their current status with regard to dwellings and development approvals, and future potential for subdivision. Estimates of future development potential were based on an assessment of land capability, land use and zoning. Estimates of future demand for lots are based on a combination of past building rates, population projections and an understanding of the marketplace. Conclusions were then extrapolated from the zone analysis to a regional perspective to gain an overall picture of likely future needs and opportunities.

Lot Supply: A Land and Housing Monitor was updated to September 2002 for all urban/village and smallholding zones in the Bega-Tathra-Wolumla subregion.

Land and Zone capability: In assessing both potential lot supply and the capability of land for its current zoning, a range of environmental factors were considered. These included such things as topography, bushfire hazard risk, soil landscape, agricultural capacity, current land usage, vegetation, threatened species, floodlines, wetlands, cultural heritage, existing subdivision approvals, and access and servicing issues.

Lot Demand: Future demand for dwellings and building lots was estimated using two methods:
- the average rate at which lots had been built in the previous five years, and;
- a combination of population projections and occupancy rates based on census data. These estimates are discussed in the context of significant trends and factors related to local knowledge of the housing market.

Consultation: A Consultation Panel was established in relation to the review of the Bega Future Urban Zone. Two meetings of the Panel were convened during the Review, as well as a tour of the industrial land options. Consultation has occurred directly with the Department of Land and Water Conservation, National Parks and Wildlife Service, and PlanningNSW
regarding different aspects of the Review. A survey of endangered flora and fauna in the two Future Urban zones and a rural smallholdings zone was also undertaken.

**Overview of the study area**

The total Bega-Tathra-Wolumla subregion for the purposes of this study comprises 504 sq. km or just over 8% of the Bega Valley Shire. The vast proportion of this subregion comprises rural land, national parks, reserves, and environmentally protected areas. The specific focus of the Review was 44.2 sq.km of Future Urban and Rural Residential zoned land. There are eleven rural residential zones comprising 33 sq. km and spread over thirteen localities and two Future Urban zones– 933 ha at Bega and 143 ha at Wolumla.

Bega is the major service and infrastructure centre for the subregion offering a range of government, educational, medical, social, recreational, and commercial services. The smaller settlements of Tathra, Wolumla, Mogareeka and Kalaru have evolved in recent decades mainly to meet the demands of rural residential living and tourism. They all function to some extent as dormitory settlements for residents working in the larger Shire towns, although Tathra also has a significant role in providing coastal holiday housing.

**Demographic Character:**

In 2001, the Bega-Tathra-Wolumla subregion as a whole (including rural areas) recorded a population of approximately 9,364 people, or 30.7% of the Shire population. Population growth in the subregion in the five years from 1996 was only 2%, compared to 5.5% growth for the Shire overall. Growth mainly occurred in rural areas and smaller villages, with both Bega and Tathra experiencing small population losses between 1996 and 2001. The growth patterns experienced by both Kalaru and Tathra prior to 1996 have disappeared at the same time as Wolumla and rural areas continue to grow. The proportion of urban/village residents in the subregion fell by 5% (to 67%) between 1996 and 2001.

On the other hand, dwelling numbers continued to increase in all areas of the subregion, including Bega and Tathra, recording an 18% increase in the intercensal period to 2001. This high level of growth in dwellings with the much lower population growth (2%) is partly explained by a reduction in household sizes from 2.7 people in 1996 to 2.3 in 2001. On average, the oldest and smallest households tend to be found in Tathra and parts of Bega. As in the Shire generally, non-urban areas tend to have larger average household sizes and more two parent families. As a coastal settlement with significant seasonal variations in population, Tathra recorded the highest vacancy rate in 2001, with nearly 1 in every 5 dwellings being unoccupied at the Census held during winter.

**Major planning issues arising from review**

**Conservation Issues**

As part of this planning review, an assessment of flora and fauna values of land within the Future Urban Zones was undertaken in July 2001 by consulting botanist Jackie Miles and
Council’s Natural Resources Officer, Graham Roche. Their recommendations were confirmed by the Section 34A Consultation with the National Parks and Wildlife Service.

**Endangered Ecological Communities**

As required by Section 34A of the Environmental Planning and Assessment Act, the Director-General of the National Parks and Wildlife Service (NPWS) was consulted about whether the study areas contained critical habitat or threatened species, populations or ecological communities, or their habitats. A number of the issues raised by the consultation had already been identified, although a number required further investigation. The following points summarise the concerns of NPWS.

- Bega Dry Grass Forest and Candelo Dry Grass Forest are endangered ecological communities occurring in the study areas - north and south of Bega, Wolumla, and the Kalaru/Tathra and Black Range 1(c) zones. Identification of remnants of this community containing a native understorey, whether intact or extensively modified, was also recommended.
- Kalaru/Tathra and Wallagoot Lake areas contain forest communities that form part of a significant regional fauna and flora habitat corridor.
- The fire risk of 1(c) land adjoining national park estates requires assessment, including control or safety measures that may be required and the environmental impact of such measures.

In considering the best means of affording protecting to such areas, a number of options are presently available. These are summarised in the Appendices and were considered during the Review.

**Aboriginal Cultural Heritage**

NPWS reported that many important Aboriginal sites are known within or in close proximity to some of the areas studied. A search of the Aboriginal Sites Register found a number of recorded isolated and clustered sites in a number of the localities under study, in particular, Tarraganda, Wallagoot Lake and Bega. Recorded sites tend to occur more frequently, although not only, around coastal areas and waterways.

Council has recently signed a Protocol with local Aboriginal Land Councils outlining consultative mechanisms and assessment processes to address Aboriginal Heritage values when land is proposed for development. Given the large number of sites recorded around Wallagoot Lake, any development of the forested areas of the large 1(c) zone here would warrant an Aboriginal cultural heritage assessment prior to development or land clearing in line with this Protocol. Indeed, most forested areas generally, and areas containing rocky outcrops, ridgelines and unusual landforms, should be regarded as containing potential sites and the appropriate steps taken in assessing development proposals.

**European Cultural Heritage**

Bega Valley Shire Council holds a register of European settlement heritage sites, of which a significant proportion are located in and around Bega, Tarraganda and the Bega Valley. While a systematic survey of the entire subregion was not specifically undertaken for this review, Council maintains a Heritage Register and identification of heritage potential is part of the
development assessment process. Any other queries are referred to the Shire’s Heritage Consultant for determination on a case-by-case basis.

**Bushfire Hazard Issues**

Recently introduced legislation in the area of bushfire risk management has resulted in the mapping of all areas of the Shire to identify areas of high, medium and low risk. In conjunction with this mapping, Council is developing a procedure for assessing whether development sites are on bushfire prone land and compliance requirements. This information, in draft form, was utilised in this review to flag areas of medium and high risk and specifically in considering the development potential of rural residential zones. This issue also links into the question of minimum lot sizes to enable residential, agricultural and environmental land uses to coexist.

The fact that forest would have to be cleared is not, in itself, considered justification for preventing development. However, the principle of excluding development on environmental grounds is now accepted, including where the costs of undertaking protective works to reduce bushfire threats to development are considered too high. Thus, in considering whether residential development is appropriate for an area, both the financial or environmental costs of reducing threats to development need to be considered. More particularly, at a zone level, the question of how bushfire risk management strategies are likely to impact on the conservation values of an area are significant.

**Coastal Zone**

A significant proportion of the study area falls within the NSW Coastal Zone. In November 2002 a new State Environmental Planning Policy (SEPP) No 71 Coastal Protection came into effect.

This new SEPP has implications for the approval processes of certain developments in the coastal zone.

While no mention is made of Council’s settlement Strategy work in this SEPP or its schedules, Planning NSW has advised that development in affected areas will need to be consistent with any relevant strategy recommendations, particularly in coastal areas, irrespective of the approval process or consent authority.

**Infrastructure & Servicing**

**Utilities**

Generally, electricity and telephone servicing is available to all areas of the subregion, tempered in some of the more outlying areas or difficult terrain by the cost of obtaining such services. At the present time all electricity connection is via above-ground lines but there is a preference for new installations, particularly in urban and village areas, to be underground.

**Sewering**

Bega Valley Shire Council has in place plans for upgrading the existing sewage treatment system at Tathra and completely refurbishing or replacing the Bega sewage treatment plant.
In addition, provision of a community sewerage system for Kalaru and Wolumla is planned for completion within the next five years. The most important outcome of these sewering works is expected to be significant environmental improvements in the local groundwater catchments. A subsidiary outcome will be a positive impact on potential village lot yields — enabling higher density infill development and possible expansion in the sewered village areas. At the present time development in unsewered villages is generally not preferred on lots under 2000m2 in size.

**Water**

Reticulated water is currently available in all the villages, and for historical reasons, in some rural areas of the Shire as set out in a Development Control Plan (DCP No. 10). For environmental and economic reasons, Council has now adopted a preferred policy of only connecting dwellings which are also connected to reticulated sewerage systems. This is also consistent with State Government Policy. A review of the DCP 10 provision may be warranted, particularly for those non-sewered areas that are not yet developed and do not lie within existing serviced areas.

**Privatisation Issues**

The issue of the privatisation of infrastructure provision and management has arisen recently for Council on a number of levels. In relation to this Review, a number of community title subdivisions exist in the subregion and applications for two such subdivisions are currently being considered. In such subdivisions, infrastructure internal to the whole subdivision is funded and maintained by the landowners.

Two major infrastructure issues arise with Community Title subdivisions. Firstly, there is concern that such titles should not be a way of justifying development which is substandard, e.g. road quality, or would not otherwise be appropriate in an area, e.g. environmentally sensitive water catchment. Secondly, the long term sustainability of such titles in relation to certain types of infrastructure is questionable.

By way of example, Council recently received a development proposal for a large Community Title subdivision which includes over 100 lots and a privately funded and managed sewerage treatment plant. Such a development would inevitably have resource implications for Council, as it will have statutory responsibility for the ongoing monitoring of the system’s functioning and impacts, especially as it is in an environmentally sensitive and coastal area. In the longer term, if community management of the asset was inadequate or not sustained, Council would be likely to inherit financial and management responsibility for such a facility.

At the present time, Council does not have the resources to support and monitor privatised sewer or water systems and their development is not encouraged. Also, recent public concerns about the contracting out of sewerage and water construction services and maintenance, suggest that at this stage the public may be unwilling to support privatisation of sewer infrastructure and management.
Roads

One of the major planning issues for Council lies in the resource inefficiencies associated with infrastructure servicing – both physical and social - for very low density rural smallholdings, rural zones and existing village developments. This is especially the case for roads in rural zones. As large lots are subdivided new roads enter the system and pressure often arises to upgrade and seal roads that were historically designed to serve only a few farm families. The significant area of smallholding zones in this subregion that are yet to be subdivided could place even greater demands on Council’s revenue base when it is already finding the cost of maintaining roads throughout the Shire prohibitive.

This issue relates to villages as well as rural areas. In villages such as Wolumla, most streets are unsealed and have no kerb and guttering. While Council’s Section 94 Contribution Plans enable the costs of road construction and maintenance to be charged to new developers, costs are not directly recoverable from owners of existing dwellings. Nor does Council, at the present time, have statutory power to compel existing owners to pay additional levies for road infrastructure costs, even if road upgrading improves property values and living amenity. It is recognised that in the future the ability of Council to fund or recover the costs of road upgrades and maintenance in areas where significant numbers of dwellings already exist is likely to reduce its ability to approve new rural developments.

In terms of rural residential settlement, the question arises as to whether the undeveloped sections of the larger smallholding zones – in particular, Wallagoot and Coopers Gully/Buckajo – can afford to be developed, even if they did not have other constraints. It is apparent that the Shire cannot afford to continue subsidising unlimited expansion of low density rural living opportunities.

Social, Community & Recreation Facilities

Realistically, Council does not have the capacity to provide town services to all the villages and settlements in the Shire. Quality of access for rural residents to health, community and educations services in the town centres would seem to be a growing issue as rural populations increase. Transportation, outreach services and community supports are primary factors for rural people in accessing services. The costs associated with providing such services lends support to the argument for situating low density rural residential settlements close to urban settlements. This will become increasingly significant as the population in these smallholding areas ages over the next several decades.

Alternative Rural Living Opportunities

The review of the rural smallholdings zones in the Bega-Tathra-Wolumla subregion has raised the question of the adequacy of current rural zoning options given changing land uses and environmental protection needs. It has identified the need to consider creation of a variety of rural living and smallholding zone options with differing levels of servicing appropriate to their purpose and location. At present, the Rural 1(a) and the traditional rural residential - Rural 1(c) - zones are the only options clearly provided for under LEP 2002. A variety of rural living zones appropriate for the Shire need to be created and linked to clear guidelines regarding servicing.
levels. The Development Control Plan mechanism is not considered an adequate or efficient mechanism for long term development control of larger areas in line with an overall settlement strategy. It is recommended that the Rural Lands Review consider this issue and possible options for such lands in the context of rural options for the Shire overall.

**Residential supply & demand**

**Current Supply**

The Land And Housing Monitor was used to assess the potential supply of vacant lots in rural smallholding zones, towns and villages in the Bega-Tathra-Wolumla subregion in September 2002. At that date, the subregion had 537 vacant residential lots (urban, future urban and rural residential) suitable for dwellings. 723 lots were estimated to be possible from subdivisions (excluding subdivision of Future Urban Zone lots). It is estimated therefore that a potential of 1,260 vacant residential lots existed in the subregion (both urban/village and rural residential) in September 2002. And a further 90 village lots are possible following sewer upgrades and installation in the near future.

**Urban Supply**

<table>
<thead>
<tr>
<th>Urban Area</th>
<th>Existing Lots</th>
<th>Vacant Lots Suitable for Development</th>
<th>Additional Potential from Subdivisions</th>
<th>Additional Potential from Sewering</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bega</td>
<td>1648</td>
<td>71</td>
<td>211</td>
<td>-</td>
</tr>
<tr>
<td>Kalaru</td>
<td>77</td>
<td>8</td>
<td>70</td>
<td>26</td>
</tr>
<tr>
<td>Tathra</td>
<td>827</td>
<td>54</td>
<td>39</td>
<td>-</td>
</tr>
<tr>
<td>Mogareeka</td>
<td>46</td>
<td>3</td>
<td>5</td>
<td>-</td>
</tr>
<tr>
<td>Wolumla</td>
<td>240</td>
<td>25</td>
<td>12</td>
<td>64</td>
</tr>
<tr>
<td><strong>Total Urban</strong></td>
<td><strong>2,838</strong></td>
<td><strong>161</strong></td>
<td><strong>337</strong></td>
<td><strong>90</strong></td>
</tr>
</tbody>
</table>

It should be noted that the potential lot supply figures gained from the Land and Housing Monitor are hypothetical rather than an accurate reflection of the market supply of lots. They contain an inbuilt assumption that all potential subdivisions will occur and all current and future vacant lots will enter the market. In reality, in September 2002, subdivision approval for 34 current lots had been gained to create 190 smaller lots. There were also relatively few vacant, unsubdivided2 lots on the market. For a range of reasons, a large number of these larger lots are not expected to be placed on the market or developed for some time into the future.

2 “Unsubdivided” refers to lots that have potential for subdivision under current zoning. “Subdivided” lots refer to lots that are not able to be further subdivided or are not suitable for subdivision.
Bega is the largest and most fully serviced settlement in the subregion, and it has the largest and least constrained expansion potential beyond its current boundaries. While it currently seems to contain considerable development potential, in reality there has been very limited market availability of vacant lots.

Presently, the villages in the subregion are constrained from expansion beyond their current boundaries. Both Mogareeka and Tathra are situated in the Coastal Zone and are surrounded by National Parks, environmental protection and open space zones. No extension of their boundaries is expected in the long term future. On the other hand, both Kalaru and Wolumla are popular settlements temporarily constrained until sewer infrastructure is installed – sometime in the next 4-6 years. With sewering, both villages have the potential to develop more intensively and to expand in size to meet demand over the medium term.

**Rural Residential Supply**

<table>
<thead>
<tr>
<th>Existing Lots</th>
<th>Existing Dwellings</th>
<th>Other Uses/Buildings</th>
<th>Vacant Lots Suitable for Development</th>
<th>Additional Lots Approved Not Created</th>
<th>Additional Lot Potential From Subdivisions</th>
</tr>
</thead>
<tbody>
<tr>
<td>742</td>
<td>539</td>
<td>30</td>
<td>276</td>
<td>85</td>
<td>393</td>
</tr>
</tbody>
</table>

Discussion of the land supply in each of the smallholding zones is presented in the Rural Residential section of this Report and the Land and Housing Monitor summary is provided in an Appendix.

The two zones with the largest vacant lot potential if fully subdivided are the Wallagoot Lake zone with 183 lots and Coopers Gully/Buckajo/Bega zone with 173 lots. They are the two largest zones and have the least development at this stage. Conversely, only 6 potential (vacant) lots are estimated to remain in Bega township Rural 1(c) zones, excluding the Future Urban Zone, and up to 20 potential vacant lots remain around Wolumla.

Apart from Wolumla, Jellat Jellat and Bega town, most of the zones have considerable capacity remaining (at least 45% of their acreage) but most of this land has not been subdivided or placed on the market. At the same time, as a result of this review a number of significant recommendations have been made that reduce some of the existing smallholding zones, extend a Wolumla zone and create two additional zones immediately to the south of Bega township. In total, 1383 ha or 45% of Rural 1(c) land is recommended for reassessment or rezoning. Conversely, 180 ha of land adjoining Bega and Wolumla is being recommended for rezoning to Rural 1(c).

**Residential Demand**

**Demand Projections**

Population Projections: Prior to the 2001 Census, DUAP and ABS population projections for Bega Valley Shire during the 1990s were estimated to have been 1.2% p.a. The 2001 Census confirms a 1.1% average yearly growth for the Shire in the previous five years but only an average growth of 0.4% p.a. in the Bega-Tathra-Wolumla subregion. Wolumla’s growth rate of
2.9% p.a. and growth in the rural residential areas was counterbalanced by population decreases in Bega and Tathra and no growth in Kalaru.

Based on these figures, growth scenarios for the subregion between 2001 and 2021 were calculated using an occupancy rate of 2.3 persons per household. An average annual growth rate of 0.5% would lead to an increase of 832 people, or 362 dwellings by 2021. A 1% annual population growth would result in an additional 1,745 people or 759 dwellings, and a 2% annual growth would result in an additional 3,801 people and 1,653 dwellings.

Building Rates: Construction Certificate rates (aka Building Application Approval rates prior to mid 1998) over the five years from 1997-2001 averaged 75 applications per year. If this rate continued until 2021, a total of 1,500 additional dwellings would be approved. Although this number of dwellings could house around 3,450 people, a vacancy rate of 11% would suggest around 3,070 people.

It is relevant to note that building application approval rates demonstrate the variable rates of development in the different zones and localities. Overall, two-thirds of the dwelling approvals from 1997-2001 were for non-urban zones. Rural smallholdings zones comprised 36% of the approvals, towns and villages combined comprised 33%, followed by Rural 1(a) zones (23%) and the Future Urban zones (8%). Dwelling approval rates in urban/village areas decreased by two-thirds (from 39 to 13 p.a.) during these five years, presumably as the market supply diminished, while rates were generally maintained or increased in other areas.

The wider Bega locality experienced the highest dwelling application approval rate at 30% of all approvals in the five years 1997-2001. Tathra followed with 16%, Kalaru with 13% and Wolumla with 11%. Wallagoot, Black Range and Tarraganda localities each recorded around 5% of the approvals. Wolumla recorded the highest building approval rates for both Rural 1(a) and Village zones (4.6 p.a and 2.6 p.a. respectively). Rates of 1(c) approvals were highest in the localities of Kalaru 8.8 p.a., Bega 7.2 p.a., Wallagoot 3.2 p.a. Tarraganda 2.4 p.a. and Black Range 1.4 p.a.

**Demand Issues**

Assessing future demand patterns through past building approval figures is not straightforward and cannot be viewed in isolation from an understanding of the often quickly changing dynamics and idiosyncrasies of the market. Many factors influence both the subdivision and market availability of lots (supply), and the nature of population growth patterns, consumer characteristics and preferences (demand).

It has been revealed by this Review that in some parts of the subregion market supply appears to have been very limited despite significant potential for development in line with zoning. Both the size of the zone and the market availability of lots, especially new subdivisions, impact on the level of development opportunities. The cost of subdivision relative to market prices appears to have been a significant factor in limiting subdivision undertakings. Other factors that seem to influence demand are access to major sealed roads and proximity to major towns.
and the coast. There are strong indications that new subdivisions or in urban, rural residential and rural zones tend to be rapidly bought, eg. the recent sale of lots at Jellat.

Demand for lots within Rural 1(c) Smallholding zones is also thought to be significantly affected by the availability of concessional lots in Rural 1(a) zones. In the years 1997-2001, nearly 1 in every 4 dwelling application approvals were in Rural 1(a) areas. Between 1996-2000, 71% of these approvals were for lots of 10 ha or less in size. This situation suggests that the level of demand for lots in Rural 1(c) Smallholdings zones has been significantly lower than it may otherwise have been. Removal of this option – through planning mechanisms or by natural exhaustion of opportunity– could result in a significant increase in demand for vacant subdivided lots in rural smallholdings zones. This level of development in Rural 1(a) lands also raises a concern regarding the level of residential development occurring outside nominated zones and the resulting long term economic and social impacts it may have for the community. This issue will be addressed further in the Rural Lands Review.

Another major issue in projecting demand for dwellings in the subregion is the past discrepancy between dwelling and population growth rates. As stated earlier, this trend has been due, at least in part, to falling household sizes. Another factor is the level of unoccupied dwellings. At the 2001 census, more than one in every 9 dwellings was recorded as unoccupied. Tathra recorded the highest vacant dwelling rate at the 2001 census and the second highest building application approval rate – both 19%.

Supply & Demand Comparison

The demand projections above indicate that subregion population growth at the previous low rate of 0.5% would result in only 362 new dwellings being required by 2021, whereas a 2% growth would require 1,653 dwellings. On the other hand, projections based on recent dwelling application approval rates suggest that around 1,204 residential dwellings would be approved by 2021. From a subregional perspective, there is currently an estimated potential for 1,260 vacant residential lots -and 1,320 after the priority sewering works are completed.

With no zoning changes then, it would appear that the subregion overall would have the capacity to meet demand generated by a relatively high 1½-2% growth rate, even if all concessional lot developments ceased.

Considering Rural 1(c) and urban figures separately, it is estimated that there could be potentially 576 urban and 754 rural residential vacant lots in the subregion following sewering of the villages (and if all potential subdivisions occurred). Projections based on recent dwelling application approval rates suggest that by 2021, 554 dwellings in urban/village zones, 598 rural residential dwellings and 241 concessional lot developments would be approved by the end of 2021.

Based on past building application approval rates this would equate to 23 years of urban and 28 years of rural residential supply (or around 20 years of the latter if concessional lot supply disappeared in the next decade). However, if the zoning changes recommended in this report are taken into account, the urban vacant lot yield could potentially increase to over fifty years.
supply, and rural smallholdings supply reduce to 16-20 years (and less if concessional lot supply was removed or reduced).

Given the popularity of smallholding lots for retirees, it is possible that by 2021, the timeframe of this report, quite a number of the lots developed over the fifteen years could begin entering the market. A trend in this direction could start to impact on smallholdings supply in about 15 years and needs to be factored, to some extent, into any estimations of likely smallholding lot supply and urban housing demand beyond 2021. It is recommended that Council begin closely monitoring census data on population aging, and the ages of new residents from outside the Shire, as this will not only impact on residential demand, but also on demand for health and community services.

The way forward

The projections above suggest that in theory there is sufficient urban and rural smallholdings supply for the next two decades. However, this Review has concluded that demand for rural residential lots has been pushed up by an insufficient supply of affordable and serviced, new urban subdivisions in the subregion. The market situation suggests that new subdivisions in and around towns and villages are very popular when they become available, as are rural residential subdivisions close to settlements. On the other hand, the availability of a significant number of concessional lots in the subregion appears to have attracted around one-third of the demand for smallholdings away from Rural 1(c) zones. On the basis of equity, environmental and economic (infrastructure) grounds it is considered preferable to provide opportunities for urban and periurban developments as soon as possible, rather than to open up new areas of expansion in generally low serviced rural areas. Similarly, environmental constraints point to the need to encourage development in and around settlements, as well as inland but within easy distance of the popular coastal areas.

Over the next decade, a number of significant matters will be concluded and a number of trends should become apparent to clarify directions for future settlement strategies in the Bega-Tathra-Wolumla subregion and specific parts of it. Sewering of the villages within the next decade is likely to attract some of the residential smallholdings demand, particularly as affordable land in coastal towns diminishes. The Rural Lands Review will conclude with recommendations on the future of concessional lot entitlements and a Shire Residential Settlement Strategy with clear parameters for future rural living options. Decisions regarding siting of the Sewerage Treatment Works and the Regional Recycling Centre at Wolumla will impact either way on potential rural smallholdings land supply. And the impact of implementing any of the recommendations in this report, particularly market response, should begin to be observed. The longer term impact of the State Government’s new Coastal Planning Policy will also be known.

The analysis of supply and demand above indicated that there could be only 15-20 years supply of rural smallholding lots left in the subregion if the recommendations of this report are implemented. However, until the matters above are concluded, it would seem unwise to expand this supply. The recommendation to reassess the appropriateness of around half the
current Rural 1(c) land may not result in this land becoming unavailable for development, depending on the outcome of the Rural Lands Review. Further, the potential expansion in serviced urban lot options may reduce demand for larger, unserviced lots further from settlements. And the opportunity to later expand the amount of new Rural 1(c) land around Bega and Wolumla, and to a lesser extent Kalaru, will remain, even if the rezonings recommended for the Future Urban Zone are implemented.

It is likely that dwelling growth will continue to outstrip population growth in the subregion. It also seems likely that as the population ages in the larger settlements, demand will change, both in terms of dwelling characteristics and lot sizes. It is recommended that Council begin closely monitoring its building approval data for trends in dwelling characteristics, lot sizes and locations. It also recommended that Council begin encouraging a greater variety of urban housing to cater for changing life cycle needs.
Section 3: Bega future urban zones

Bega comprises three Future Urban Zone 2(f) areas created in the late 1980s. A small Zone 2(f) area of 3.1 ha is located within the existing Bega town boundary on Rawlinson Street. A subdivision development for 24 lots has recently been approved for this lot. Another small 2.4 ha Zone 2(f) area lies outside the north-eastern boundary along East Street. A cluster of 35 units for aged people is being constructed on this lot. These two zones are recommended for rezoning to residential to reflect their use and are not discussed further in this report.

Bega south future urban zone

By far the largest Zone 2(f) area is 927.6 ha extending south from the Bega township boundary on either side of the Princes Highway. This land was almost entirely cleared for agricultural use in the past, and it is still a major activity. The majority of the lots have not yet been subdivided for residential use.

<table>
<thead>
<tr>
<th>Total Size</th>
<th>928 ha</th>
<th>Dwellings Built/Approved:</th>
<th>74</th>
</tr>
</thead>
<tbody>
<tr>
<td>Existing Lots:</td>
<td>129</td>
<td>Other Use Buildings:</td>
<td>13</td>
</tr>
<tr>
<td>Vacant Lots:</td>
<td>49</td>
<td>Lots approved Not Created:</td>
<td>3</td>
</tr>
</tbody>
</table>

Land Capability & Land Use Factors

- The Bega River borders the western, northern and eastern sides of Bega and has large areas below the Estimated 100 Year Floodlines, confirming the south as the most suitable area for future urban expansion.
- Being primarily Lower Brogo soil landscape the zone is generally rated as having minor to moderate limitations for urban development except on lower slopes and drainage lines, areas of bedrock outcrop and wetlands. Reducing the impact of soil erosion on the riverbed load is also an identified rehabilitation strategy, especially given the easily eroding nature of local soils.
- The western side of the study area is upstream of the extraction point for the Bega town water supply, thus minimisation of potentially polluting developments and activities, and on-site effluent treatment, is warranted.
- While no difficulties are anticipated for connecting all areas in the South Bega Future Urban Zone to power and telecommunications utilities, sewering on the eastern side of the Princes Highway would currently be the most cost effective due to topography and the siting of the Sewage Treatment Works.
- Two areas in the Future Urban zone have been identified as having conservation significance - the wetlands east of the Bega River and the remnant vegetation in the south-west corner of the zone.
- While much of the physical surface evidence of indigenous culture and activity has largely disappeared in this zone, there is one recorded site in the Zone 2(f) area. This site lies along the Bega River in the area proposed for environmental protection zoning. Another exception could be old growth trees. A significant number of European settlement heritage sites exist in and around Bega. Identification of heritage potential is part of the development assessment process.
Residential Land Needs

Supply and Demand

Although Bega township itself recorded small population losses over the past decade, including a 5.4% decrease between 1996 and 2001, dwelling numbers have continued to increase. Inclusive of the northern part of the Zone 2(f) area, dwelling approvals grew from an average of 3 new dwelling approvals per year from 1991-1996(inclusive), to an average of 7.4 per year from 1997 to 2001. Further, both population numbers and dwellings are growing in the areas adjoining the township. The apparently decreasing household sizes within Bega, and the increasing number of new households around Bega suggest that demand for new lots and dwellings will continue into the future. It is likely that future infill and redevelopment within the town centre will appeal particularly to older people, students and young couples. Additional new urban and rural residential (smallholding) lots adjoining the township are likely to attract retiring couples and young families, particularly given the popularity of the new developments in the existing Zone 2(f) area.

The Land Monitor indicates that as at August 2002, Bega had 71 vacant lots suitable for dwellings. If all potential subdivisions were undertaken, an estimated 282 urban lots could be feasible. However, the reality is that only 5-10 (<15%) of the vacant lots were on the market in late January 2002. Lots are generally either unavailable for purchase or undesirable due to their location, size or visual amenity. In reality, Bega township has very little urban supply on the market in the urban residential zones. Given the aim of encouraging growth in and around Bega, identification of the most suitable land in the Zone 2(f) area for rezoning and development over the next twenty years is urgently required.

Parameters of future residential land

A number of elements establish the parameters for the future expansion of urban development in Bega in a south easterly direction.

- topographically, economically and environmentally, that part of the Zone 2(f) area east of the Princes Highway is the least constrained and allows for consolidation of the existing town in the direction in which it is already developing;

- the location of the Sewage Treatment Works (STW) at the south east corner of the town; recent costings of the possible STW upgrade for Bega includes up to 124 hectares of Zone 2(f) land south east of the current town boundaries;

- the siting of a proposed future RTA bypass road would provide a logical border to the western side of the town, especially as access points for the bypass are only planned at its northern and southern ends; extending the township west of the bypass route would literally divide the community;
The south easterly direction currently has basic tarred and graded roads and is relatively moderately sloped, thus providing the most cost effective infrastructure option; it also incorporates a large lot owned by the Department of Housing.

The Way Forward

Given environmental, economic and servicing factors relevant to this area, 94 ha of land southeast of the current town boundary is being recommended for rezoning to residential. The exact zone density breakdown is yet to be determined, but will seek to achieve a mix of development yield. It is preferable that any development in this area however be staged to enable compatible activities to continue on some of this land until it is required for full urban residential use. Further, staging of development will allow the provision of road, reticulated water and sewer in line with any servicing strategy and s94 contributions planning.

However it should be noted that at present, Council is involved in preliminary discussions with a developer about the residential subdivision of land bounded by East Street, Howard Ave and Tathra Road (the Glen Mia property). Should a development scheme for this land be progressed into a full masterplan, it will be incorporated into the recommendations of this report and zoned accordingly.

A further 130 ha of land to the south of the proposed residential release land has been identified as “Investigations land” and will appear as blue hatched on the map. This land currently forms part of an operational dairy farm.

The purpose of the “Investigations land” is to temporarily freeze its subdivision potential to enable consideration of alternate land use options on part of the Rural Lands Review. In the interim however, the underlying zone of the affected land will remain in place but with tightened planning controls. Use of the land will be permitted where consistent with the zone controls and only where:

* The development is unlikely to prejudice the possible future subdivision and development of the land or land in the vicinity
* The development will not create a demand for uneconomic provision or upgrading of services to the land by Council
* The development will not prejudice future conservation opportunities for flora and or fauna habitats/corridors

The report also recommends about 9 ha of land be rezoned to Residential (Special). This land will have specific controls via a Development Control Plan to ensure an adequate buffer is provided between any residential development on this land and any industrial development on land opposite. Techniques to achieve such an outcome include large lot size, controlled access points, building envelope controls and landscape buffer strips.
One of the difficulties in zoning land is that it does not guarantee that the land will be subdivided and placed on the market for the purposes for which it is zoned. As such, in identifying land for residential development in the short to medium term future, some attempt has been made to ensure there are a number of landholders, rather than one or two.

It is recommended that the Local Plan process for Bega Township identify the appropriate pattern of residential development (albeit low-medium-high density) for this release land based on the long-term needs of the town. Council’s servicing strategy will also be integral to this process.

**Commercial and Industrial Land Needs**

Bega currently contains a total of 37.7 ha of land zoned for industrial use. This land consists of a number of scattered small zones around the Bega town centre, as well as 3.3ha of Council Depot land at the southern end of town, 1.4 ha in north Bega east of the Princes Highway, and a larger area of 26.7 ha in north Bega west of the Highway. At the present time there is little potential in the existing zones for larger lots catering for new demand in such industries as bulk storage or warehouse retail. Nor are there fully serviced sites available to attract or cater for new industry. There is a general concern that for future employment options the town’s industrial base be expanded through the attraction of additional industries to Bega.

**Current Constraints**

Light industrial uses occur in the smaller zones around the Bega town centre. However, much of this land, or 6.1ha, is below the 100-year floodline and any further development is unlikely without significant protection work.

At present the Bega Cooperative owns 56% of the industrial land in north Bega. While 8.5 ha is currently vacant, it appears that the Cooperative is holding it for its own expansion in the future, including car parking. The Cooperative has indicated that it is highly likely to purchase any additional land brought into this zone by extending it.

The remainder of the north Bega zone is almost entirely in use for industrial purposes and there is very limited potential for even small lots to become available through subdivision in the near future.

By default, a number of light industrial/special business type activities have begun establishing in an area south of Boundary Road at the south end of town and in the northern end of the Zone 2(f) land. It includes a farm supplies business and two small truck/bus depots, water utilities and the Old Bega Hospital Cultural Centre as well as dwellings.
Future Options

From a regional perspective, extension of industrial land for the northern part of the Shire would logically be placed in the Bega area, given both servicing requirements and the current function of Bega as the major industrial and commercial centre for the northern subregion. This location concurs with the principles for commercial and industrial development set out in the Lower South Coast Regional Environmental Plan No.2, Clause 37 (see Appendix for details).

BVSC acknowledges the work that the Industrial Committee of the Bega Planning Forum3 has undertaken previously in reviewing potential industrial sites. This Committee undertook two investigations of potential sites in the Bega area, identifying two optimum sites from eleven studied. The first site was land located in the Zone 2(f) area north of the Bega Saleyards. The second site was the expansion to the west of the current North Bega industrial zone, which was identified as more suitable for heavier industry. This review included a further six possible options: more intensive use of the current north Bega zone; the current Council Depot site; 10ha between Boundary Road and the Old Bega Hospital Cultural Centre, with a possible extension north of Boundary Road; a large lot on Tathra Road south of Howard St; and a lot on Tathra Road south of Boundary Road.

The Way Forward

The review concluded that a number of options existed for encouraging a variety of industry and commercial activity around Bega, based on existing development patterns. The following zonings are now recommended following a full assessment of all options:

- Extension of the current industrial zone in North Bega by approximately 8 ha (to the 40m contour line). Such a rezoning will flag its future use to surrounding landowners and potential rural residential developers and buyers. It is also proposed to extend this zone eastwards to include 4.5 ha of the Zone 1(c) land. This area currently has some industrial activity including the old Bega Cheese factory and Heritage Centre.

- Creation of a second 4(a) Industrial zone of approximately 26 ha on minimally constrained land south of Boundary Road and bounded by East Street and Tathra Road. Attributes of this land include existing road access to the Princes Highway, slightly sloping, but even land easily serviced by utilities, limited visibility from residential areas due to topography. Being situated next to proposed future residential land also provides an opportunity to minimise land use conflicts through effective land use control and design.

3 Details re forum
• Expansion of the Industrial 4(a) Zone in Park Street Bega by approximately 0.6 ha. Council currently owns a number of lots in Park Street which are zoned 6(a) Public Open Space and affected by the 1 in 100 year flood line. This land is opposite an established industrial zone. It is considered that with minimal fill on this land that an additional area of industrial land in central Bega could be provided while maintaining a residue of land for Public Open Space. Further assessment of this option is required as this plan progresses.

• Creation of two areas as mixed use zones. A mixed use zone is likely to comprise residential uses in conjunction with light industrial and/or commercial uses. This zone would provide a transition of land use between the proposed residential and proposed industrial areas. The areas of land identified with mixed use potential include:
  ▪ 66 ha of land north of Kerrisons Lane including the Bega Saleyards, Country Energy and a waste disposal business along Kerrisons Lane and
  ▪ 34 ha of land bounded by the Princes Hwy, Boundary Rd and the Old Bega Hospital Cultural Centre.

Site specific development control plans will be required for mixed use zones to ensure an efficient and orderly use of this land.

Conclusion

The Review has established that there is a need to more clearly delineate future uses for the Future Urban zone in South Bega, based on an analysis of current needs. As a result, it is recommended that the following land use zonings and/or controls in a DCP be implemented:

• 100 ha of land be rezoned for residential use
• 9 ha of land be rezoned for residential (special) use
• 100 ha of land be rezoned for mixed use development
• 130 ha of land be identified as Investigations land
• 108 ha of land for environment protection
• 162 ha of land be rezoned for Rural Small Holdings
• 18 ha of land be rezoned for Special Uses
• 1 ha of land to be dedicated to Council be rezoned for Open Space

It is also recommended that the remaining land in this zone be rezoned to Rural. It is highly unlikely that this land will be required for urban use for many decades and this rezoning would enable current and compatible rural activities to continue. It would also prevent development that could limit or damage options for this land in the future. Sections of this area have steep topography and would be uneconomical to develop beyond Rural in the medium term.

Two other general recommendations are made in light of this review:
Rigorous onsite stormwater, septic and drainage assessment be applied for any future developments on the land to the west of the Princes Highway.

Land use planning efforts at least attempt to retain remaining remnant trees and other landscape features for their habitat, landscape and historical values as well as being examples of a highly depleted vegetation type. Stringent tree inspection controls are recommended for future development proposals in the areas in this zone. Regeneration of tree clusters is to be encouraged.
An ancillary matter to the Bega Future Urban Zone review is an outstanding issue concerning a rezoning request for two floodprone lots in South Bega. The matter has been with Council since 1992 and needs to be brought to some conclusion. This area
adjoins the South Bega Future Urban zone and it seemed prudent to resolve this matter simultaneously.

**Description of the Land**

East Street forms the eastern border of these two adjoining lots, which total 4.38 ha. The site is significantly affected by drainage lines and lowlying wetland and three-quarters of it lies below the estimated 100 year floodline. 60% of this land is zoned 2(a) residential, with the remainder zoned 6(a) as part of a larger Existing Open Space zone. A small, fully utilised 4(a) Industrial Zone is situated immediately south of this site on Park Street. Two 5(a) Special Uses Zones lie to the west - the RTA Depot and vacant T.A.F.E land reserved for future use. Vacant residential land lies to the north.

**Background**

The owner of the land originally submitted a Draft Plan to Council for rezoning of this site to enable him to undertake earthworks around the drainage channel to enable access to the lots from the end of Park Street. This was also to include an area of fill below the floodline. The applicant also sought approval to: a) create 2 light industrial blocks north of the current 4(a) zone on filled land; b) create an access road to the future residential area above flood level; change from the existing 6(a) zoning to permit the use of the floodable areas for retail nursery garden activities.

Following exhibition of a Draft LEP for this site and a number of objections, a detailed engineering assessment of the hydrology of the area was requested. The applicant subsequently submitted a Development Application to Council with a significantly reduced area of fill, followed by an engineering report which addressed flood and stormwater issues on the site.

Early in 2002, Council granted conditional development consent for undertaking some landfill and associated stormwater drainage works required to extend Park Street north. This consent was conditional on the Applicant obtaining a permit pursuant to Part 3A of the Rivers and Foreshores Improvements Act from the Department of Land and Water Conservation prior to commencement of any works. A permit is likely to be obtained subject to the owner satisfying Department of Land and Water Conservation that the works will not compromise stability of the stream.

**Zoning Issues**

**Residential Land**

At present approximately 1 ha of the current Zone 2(a) land is above the floodline and able to be built upon. This land is in the north-west corner of the site.
Flood Affected Land

The Applicant has sought to have the floodprone land, currently zoned 6(a) and 2(a), rezoned to Rural 1(a) to enable some practical use of this land. Five options are available at the present time for rezoning this floodprone land.

Preferred Option:

1. **Rezoning the entire lot to Residential 2(a)** in line with the urban nature of the surrounds. In such a case, building on the floodprone land would not be possible, but the land could be included in one or more residential lots as additional area beyond that required for house construction.

Other Options:

2. **Rezoning floodprone land to Rural 1(a)**. This option is not preferred as it would create the anomaly of a new rural lot in an urban town area, and many activities able to be undertaken in a Rural 1(a) zone would be incompatible with urban land uses. Although the current landowner may commit to a land use compatible with the urban environment, this could not be ensured should the land be sold in the future. This land is part of the larger lot that has potential for some urban residential development in a valuable residential area.

3. **Extending the current 6(a) zoning** to include the remainder of the floodprone land. This would provide a larger area of open space, which Council would be obliged to acquire. It would seem highly inappropriate for Council to be required to purchase this land on the community’s behalf, primarily because the owner cannot gain commercially from it or use it for other purposes. Further, given the swampy nature of the land, it is unlikely that it could be used for recreational activity without very significant and expensive engineering and landscaping works. Such a project is not a priority for Council at the present time. Further, Council already owns significant land in Bega for Open Space purposes. Additional land is not required.

4. **Rezoning to 6(c) Private Open Space**, which would restrict use of the land to primarily private recreational uses. This zoning is unlikely to encourage proper management of the site and the permissible uses in 6(c) zoning do not suit the low-lying, waterlogged nature of this site, e.g. caravan parks.

5. **Rezoning the floodprone land to 7(b) Environmental Protection Foreshore Zone** on the basis of its relationship to the watercourse. This zoning would permit a different, limited range of activities, subject to development consent, but would not seem appropriate for a very small area in an urban setting.
Industrial rezoning

The Applicant has sought to have the 4(a) Industrial zone to the south extended to include 0.22ha of lot 1//724268, to create two small industrial lots. This development would require piping and land fill. Council’s Engineering Department recommended against the Applicant’s original request to fill a large area below the estimated 100 year Floodline due to the potential hazards it could create for flooding upstream. It recommended that filling for the provision of access should be the limit of filling for this site. Use of this land for light industrial purposes would require filling the land to a level above the floodline and buildings on filled land can have difficulty with regard to foundation conditions. Further, incremental filling is known to reduce flood plain capacity and to increase upstream flood levels.

It is considered preferable that this land to the west of the access road provide a buffer zone between the 4(a) zone and any residential development occurring in the 2(a) zone on the site.

The Way Forward

It is recommended that all of both lots be rezoned to Residential 2(a), with the allowance that any subdivision for residential lots include at least 550 m² of land that is not floodprone and provided no building occurs on the floodprone land. Land on this site where building should not be permitted is hatched on the attached map.
Map 6: Recommended Rezoning, East Street, Bega - Lot 1 DP 724268 & Lot 2 DP 4012971
Section 4: Wolumla future urban & rural residential zones

Background

A review of the Future Urban and Rural Residential (Smallholdings) zones at Wolumla forms part of the broader review of the Bega-Tathra-Wolumla subregion regarding the supply of land for residential use in the subregion through to the year 2021.

This review revises and extends a 1997 review of the Wolumla catchment, which initiated a draft amendment to the Bega Valley Local Environmental Plan 1987 and the formulation of a draft Development Control Plan for Wolumla. The Draft Local Environmental Plan was exhibited, however, the then Minister for Department of Urban Affairs and Planning decided not to make the Plan.

Description

The Wolumla area covers 31 km2 of undulating, mostly cleared, terrain in the south-eastern corner of the Bega Valley. It is bordered by Bournda National Park in the east and Yurammie State Forest in the south. The unsewered Village has grown significantly over the past two decades and was the fastest growing settlement in the subregion in the five years to 2001. The outlying zones have a collection of rural residential, agricultural and forestry uses, including dairying and beef cattle raising, important parts of the Bega Valley economy. A gravel quarry is in use to the north east of Wolumla and rural forestry occurs to the south.

By the September 2002, the Village zone contained 140 built or approved dwellings and around 353 people, primarily young, Australian-born, non-Indigenous, English speaking couples and families. It has grown quickly and, given the absence of employment opportunities at Wolumla itself, it operates mainly as an employment satellite for nearby towns such as Bega and Merimbula, 10-15 minutes drive away. It has a small number of retail outlets and community facilities providing basic services, however, most services and shopping must be accessed in the larger towns. A large, undeveloped, Future Urban Zone of 143 ha lies along the western side of the Village.

Rural Residential Zones: There are two Rural 1(c) Smallholdings zones around Wolumla totalling 168 ha, including roads. A large zone of 126 ha lies on the western side of the Future Urban zone. While some development has occurred around the South Wolumla Road corner, the land north of the Candelo Wolumla Road has not yet been subdivided for smallholdings. A smaller zone of 42 ha lies 3.5 km north-west of the village along Wanatta Lane. This zone has been almost fully subdivided and three-quarters of the lots now have dwellings built on them. As the Census Collection Districts incorporating the Rural 1(c) zones also include significant areas of Rural
1(a) land, it was not possible to gain an overview of population characteristics specific to them.
Land Capability & Land Use Factors

The study area forms part of the Bega River catchment, comprising the upper reaches of Frogs Hollow Creek. It is characteristic of the wider Bega Valley and has several ridgelines, gullies and drainage lines running north westerly from the Village and through Frogs Hollow Swamp. The land around the Village contains some riparian vegetation, remnant bushland and scattered mature trees within primarily cleared pasture land.

Being primarily Bemboka soil landscape the Wolumla locality is generally rated as not suitable for cultivation but suitable for grazing with soil conservation practices, and some grazing still occurs. It is rated as having minor to moderate limitations for urban development and effluent absorption except on lower slopes, drainage lines and areas of bedrock outcrop. Rural residential developments require adequate provision for on-site water supply, effluent disposal, selection of safe road access and building sites, and soil erosion prevention strategies.

The study area is rated as being within a “low bushfire hazard” zone as most of the land is cleared and there are cleared buffer areas between the settlement and nearby forests. Land use conflicts between residential and agricultural activities are minimised by natural “buffers” - the vegetation remnants in the north and steep land to the east and south.

No Aboriginal cultural sites have been recorded to date by NPWS. The vegetation remnant to the northwest of the Village could contain potential sites, although it has been extensively grazed in the past. The recently updated Schedules of Heritage Items held by Bega Valley Shire Council identify a number of buildings within Wolumla village itself as having heritage significance but there are no listings for the adjoining residential zones.

Constraints

Water Catchment

Sitting in the shadow of two hill ranges, the Wolumla area drains stormwater runoff from the escarpment to the south and the Princes Highway ridgeline to the east. The village and northern parts of the Zones 2(f) and 1(c) drain into Frogs Hollow Creek. The southern ends of these zones drain into a floodpan wetland, Frogs Hollow Swamp, which drains into Frogs Hollow Creek.

Both the swamp and the creek are classified as Wolumla Creek soil landscape, which is identified as having a number of hazards: foundation, flood, water (streambank) erosion and groundwater pollution. Both have been identified by the

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4 Tulau, 1997, Soil Landscapes, Department of Land and Water Conservation
Healthy Rivers Commission\(^5\) and Department of Land and Water Conservation (DLWC) as having conservation or high recovery potential. The former identified a very high management priority in preventing erosion of Frogs Hollow Swamp and its downstream reach, and a high priority for restoring riparian vegetation elsewhere. DLWC identifies the two related priorities of stormwater runoff management and soil management for this subcatchment. Additional issues include water extraction management, vegetation corridors and sediment loads and erosion.

The nickpoint that has developed west of the Village suggests that stormwater runoff from the village area is a significant issue already and one with potential to grow as the Village grows. The four Future Urban lots south of Candelo Wolumla Road lie beneath the escarpment and drain directly into Frogs Hollow Swamp. While urban development in the area is not considered advisable, grazing activities may not be an optimum use of this land either given its hydrological function. On the other hand, any smallholdings development of this land would need to minimise impacts on the Swamp area through stringent soil and water management strategies and large minimum subdivision sizes. Two major issues for any such development would be the upgrading of Ferndale Lane as the access road and reconfiguring the lots to fit better with the drainage lines and enable lower impact access.

**Flora and Fauna**

A survey of the flora and fauna values of land within the 1(c) and 2(f) Zones at Wolumla was undertaken by Council in July 2001\(^6\) (see Appendix for a copy of the report). A Section 34A Consultation with the National Parks and Wildlife Service confirmed the conclusions of Council’s survey. The following issues were identified:

- Protection of 3ha of Bega Dry Grass Forest (Class 20), an endangered ecological community, at the northern end of the Future Urban Zone.

- High priority protection for the good quality remnant Floodplain Wetland vegetation occurring in Frogs Hollow Swamp and the remaining riparian remnants due to its depletion and under-representation in the current reserve system and its extremely important role in preventing gully erosion.

- Protection of the remaining remnant vegetation in the 1(c) and 2(f) Zones due to its conservation significance and its importance as a feature of the landscape with respect to vegetation and habitat recovery.

The survey report concluded that none of the current zoning provides significant protection to conservation values of remnant vegetation. Future land use planning efforts should at least attempt to retain the remaining trees for their habitat and landscape value and aim to minimise further tree clearing for developments.

\(^5\) 1998 and 2000 reports by Fryirs & Brierley on the Brogo/Bega River Catchment Recovery Potential.

\(^6\) The assessment was undertaken by consulting botanist, Jackie Miles, and Council’s Natural Resources Officer.
**Extractive potential**

The Department of Mineral Resources 1999 Review of Extractive Industries identified two extractive buffers in the Wolumla area. These are a gold mining buffer zone to the south of Wolumla, which includes the southern 6-7 ha of the Future Urban zone; and in the northeast corner of the Future Urban zone, a 100 ha extractive resources buffer which includes a road materials/granite quarry on 11.5 ha. Any proposed zoning or development changes which would impact on the ability to mine or quarry at a future date need to be referred to the Department of Minerals for consideration. Objections are likely to be raised against any proposals or change in zoning that could prohibit such activity. As such, the quarry area is recommended for backzoning to Rural 1(a) and the southern 6-7 ha should be prohibited from dwelling development.


**Roads**

While there are no constraints to extending existing power or phone utilities into the Future Urban or Rural Smallholding zones, a number of road servicing issues exist. (a) The cost of providing kerb and guttering, stormwater controls and road sealing for the current Village Zone remains a significant issue for Council as these costs will not be recoverable from current residents as Section 94 contributions. (b) The RTA has recently indicated that it is seeking the closure of one of the three access points from the Village onto the Princes highway and for safety reasons no further access entries will be approved. As such, any further development will need to link to the two access roads. (c) It may be desirable from a safety perspective to limit, where possible, access points onto the Scott St/Wolumla-Candelo Road for any new development proposals through use of existing streets and shared access roads. (d) Future subdivision developments in the Zone 1(c) areas will need to address access issues for larger vehicles such as garbage trucks.

**Water**

Wolumla Village is serviced by a reticulated water supply as part of the Tantawangalo system operated by Council. The capacity of the system is considered to be sufficient to accommodate increases in demand from the proposed Future Urban Area over the time period of this study. New rural residential developments would be required to provide both on-site water and sewerage management systems and the impact of this policy on water extraction demand would need to be considered and monitored by Council, in conjunction with DLWC.

**Sewer**

Wolumla is one of the priority villages in the Council's proposed sewering program and a sewerage system is expected to be completed in the next 4-6 years. Given a relatively high growth rate and reticulated water use, there is evidence that the current wastewater load from the Village area is impacting detrimentally on the quality of subsurface water. This is particularly significant given the environmental sensitivity of the drainage area and until sewering occurs and the effluent load is significantly reduced, any further development in the village area will be severely constrained. The site for the new Sewerage Treatment Works (STW) has yet to be determined. One possibility is situated in the northeastern part of the Rural 1(c) land adjoining the Future Urban zone. Thus allowance has been made for this possibility in this Review, including a 400m buffer zone.
Residential supply & demand

Supply

The Land And Housing Monitor for the three residential zones in the Wolumla and South Wolumla localities was updated in September 20027, and this data is included in the discussion below.

**Future Urban Supply**

<table>
<thead>
<tr>
<th>Size: 41 ha</th>
<th>Dwellings: 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Est. 2001 Popn: 10</td>
<td>Other Uses: 2</td>
</tr>
<tr>
<td>Existing Lots: 42</td>
<td>Building Approval Rate p.a.: 0.2</td>
</tr>
<tr>
<td>Vacant Lots: 35</td>
<td>Lots Approved Not Created: 0</td>
</tr>
</tbody>
</table>

At 143 ha, the Future Urban Zone at Wolumla is more than three times the size of the Village. Little development has occurred since its creation, unlike the Rural 1(c) and Rural 1(a) zones around it. There are currently only four major owners of Future Urban land, one being a deceased estate. The current and future supply in the Village is relevant for determining the most appropriate use of this large Future Urban Zone.

**Village Supply**

<table>
<thead>
<tr>
<th>Size: 42 ha</th>
<th>Dwellings (including approvals): 140</th>
</tr>
</thead>
<tbody>
<tr>
<td>Est. 2001 Popn: 353</td>
<td>Other Uses: 14</td>
</tr>
<tr>
<td>Popn Growth Rate: 17%</td>
<td>Building Approval Rate p.a.: 2.6</td>
</tr>
<tr>
<td>Household Size: 2.6</td>
<td>Lots Approved Not Created: 2</td>
</tr>
<tr>
<td>Existing Lots: 240</td>
<td>Vacant Lot Potential Unsewered: 25</td>
</tr>
<tr>
<td>Vacant Lots: 89</td>
<td>Vacant Lot Potential Sewered: 101</td>
</tr>
</tbody>
</table>

The Wolumla Village allotments were registered in subdivision plans in the 1880s and average 0.12ha (1,200 m2) in size. Not all of these lots have been surveyed and put on the market and a number of the original lots are considered unsuitable for building development due to drainage depressions. On paper, the village currently has 89 vacant lots and a further 12 lots could be created through subdivision.

7 See Methodology section in Chapter 1 for an explanation of the Land and Housing Monitor.
However, constraints mean that until the village is sewered, a maximum of 25 lots only are likely to gain approval for septic system installation.

It initially appears that the Village will have significant development potential once sewered. However, many of the “vacant” lots (two-thirds) are currently owned in conjunction with adjoining lots. At this stage it is not possible to determine whether owners have taken the opportunity to enlarge their lots for the long term or whether additional lots were obtained for investment purposes. As such it is not known to what extent sewering of the village will result in the release of these lots onto the market.

**Rural Residential Supply**

<table>
<thead>
<tr>
<th>Size: 168 ha</th>
<th>Dwellings (including approvals): 25</th>
</tr>
</thead>
<tbody>
<tr>
<td>Est. 2001 Popn: 62</td>
<td>Building Approval Rate p.a.: 1</td>
</tr>
<tr>
<td>Household Size: 2.6</td>
<td>Lots Approved Not Created: 1</td>
</tr>
<tr>
<td>Existing Lots: 30</td>
<td>Proportion Unsubdivided: 60%</td>
</tr>
<tr>
<td>Vacant Lots: 6</td>
<td>Vacant Lot Potential: 19</td>
</tr>
</tbody>
</table>

The Wanatta Lane subdivision of 42 ha is unlikely to be further subdivided. Only five vacant lots remain and these appear to have been purchased from the original developer. Currently, three-quarters of the larger 168 ha “village smallholdings zone” remains undeveloped. Its development potential is significantly reduced by both environmental constraints and a possible STW buffer zone.

Building approval rates in the smallholdings zones at Wolumla were 1 dwelling per year between 1997-2001. However, this low rate is likely to have more to do with vacant lot availability than popularity and is therefore not considered an accurate reflection of possible demand. No vacant smallholding lots were on the market at the time of writing this report. Dwelling approval rate in the Wolumla Rural 1(a) zone averaged 5.6 dwellings per annum, similar to nearby Rural 1(a) zones with concessional lot subdivisions. Removal of the concessional lot option – through planning mechanisms or by natural exhaustion of opportunity– could also result in a significant increase in demand in the future for vacant subdivided rural smallholding lots.
Demand

Population Projections

According to the Census figures, the greater Wolumla Village8 population growth rate in the five years to 2001 was 2.9% p.a. with an average household size of 2.6 persons. It is expected that growth will slow down until sometime after sewering of the Village is completed, and then increase again. Based on these figures, a modest growth rate of 1-2% for the first decade and rising to 5% p.a. in the second decade would result in an additional 314 people or a demand for 120 dwellings.

Building Rates

The combined dwelling application approval rate for residential zones in Wolumla from 1997-2001 was 3.8 p.a (Rural 1(c), Village & Future Urban). However, approval rates during the 1990s appear to have gradually lowered as the availability of newly subdivided rural smallholding lots and easily developed Village lots has diminished. If 80% of the Rural 1(a) annual approval rate is considered, Wolumla residential building activity was estimated to have been 8.3 dwellings p.a. between 1997 and 2001. Extending this rate over the next two decades suggests a demand for 165 dwellings in the Wolumla area.

The way forward

Wolumla Village

It is unlikely that the Village, once sewered, will have sufficient capacity to satisfy demand over the next twenty years, even if all possible subdivisions were to occur and all vacant lots were placed on the market. Further, it is expected that displaced demand from tightening coastal markets will begin seeking alternative options in nearby serviced settlements. As such, some expansion into the Future Urban Zone will be necessary, although projections suggest that only part of it may be required for quite a few decades.

Identification of that part of the Future Urban zone to be earmarked for village expansion in the future was undertaken with two fundamental principles in mind: i.) application of the precautionary principle in assessing how future development may impact on either water catchment sensitivities or vegetation remnants, and ii) consolidation of new areas with the existing village to encourage the most economical servicing options given topographical features. In this regard, 32 ha of Future Urban land has been identified for rezoning to Village. This includes 9-10 ha of riparian vegetation and buffers considered inappropriate for dwellings and requiring protection. Allowing for road easements and open space, a conservative

8 The Wolumla Census Collection district incorporates some of the Future Urban zone and Rural 1(a) zone immediately surrounding the Village.
estimate of the expected lot yield of this land ranges from 150 lots with an average size of 1200m² through to 280 lots with an average lot size of 550m². In reality a range of lot sizes would be congruent with the current village and an estimate of 215 lots is considered likely. This figure would result in a vacant lot yield for Wolumla village of around 340 lots, which is considered more than adequate to meet likely demand over the next two decades, even with a significant increase in demand.

At this stage it would seem appropriate to restrict all development in the Future Urban Zone until such time as either the village is sewered and, perhaps, its capacity is nearing exhaustion. A DCP will be prepared in this regard to ensure that future development options on this land are sustainable and in keeping with the land use capability. Given environmental considerations, it is not desirable to allow new urban development outside the current village boundary, in order to meet a demand that cannot be currently met due to effluent disposal constraints.

Any decisions as to the ultimate size of the village will need to also allow for commercial and community servicing needs as the population increases. Consideration needs to be given to identifying a commercial “precinct” and future community infrastructure needs (e.g. community house/library, preschool). This exercise would be logically part of the Local Plan process to be conducted in the near future.

Rural Smallholdings

The Review concluded that creation of additional Rural 1(c) options at Wolumla should be limited in the short term to that part of the Future Urban Zone north of the Candelo-Wolumla road. There are a number of reasons for this recommendation at the present time, despite the recommendation in the previous draft LEP to extend the Wanatta Lane smallholdings zone.

Firstly, the possible restriction of developments within Wolumla village until such time as it is sewered, could divert actual demand for Village lots into new smallholding areas. Secondly, there are a number of environmental and economic advantages to siting rural residential living areas close to serviced urban settlements. Thirdly, development of the Future Urban Zone land south of Candelo-Wolumla Road is not recommended at this stage. If it is considered in future, it is recommended that an EIA be undertaken to ascertain the likely impact of such development on the Frogs Hollow Swamp wetland area and creek.

Finally, while extension of the Wanatta Lane zone has a number of servicing and environmental benefits, two factors mitigate against such a recommendation at this point in time. A decision on the finalisation of the proposal to place a regional waste recycling centre on 200 ha of land immediately to the north of this zone could impact
on future options. Should Council not gain approval for this centre, other uses for this land could be sought – possibly including a rural residential zoning option.

It is expected that if the recommendations of this report are adopted, 25-30 potential smallholding lots could become available around the Village, if the owners take advantage of the opportunity. On past demand rates, this supply would seem adequate to meet demand in the short term until the Village is sewered and decisions are made regarding the recycling centre and the siting of the STW.

Commercial and Industrial development

At the present time most commercial activities are located in the Rural 1(a) zone south of the village, allowable activities under the current LEP. No significant expansion in commercial or light industrial activities is expected for Wolumla in the medium term. Identification of appropriate “precincts” for these activities would be pertinent as part of the Local Plan process. That part of the Future Urban Zone currently affected by an extractive resources buffer, which includes the working quarry, is recommended for backzoning to Rural 1(a) in order to reflect its likely use over the next twenty years and protect it from inappropriate development.

Conclusion

There has been obvious demand for both Village and rural residential lots in the Wolumla area, as indicated by past development patterns, market supply, and concessional lot developments. Given its location advantages and the likely reduction in the availability of affordable coastal options in the future, demand for both sewered village lots and rural residential lots is expected to grow significantly in future. An opportunity exists to proactively manage this expected development pressure in a way that maintains the integrity of the surrounding environment, which has an important place in the Bega River water catchment.

Part of the large Future Urban Zone has been identified as most suited to future village development, part of it for rezoning to rural smallholding use and part of it is recommended for backzoning until either demand requires it or an environmental assessment is undertaken as to its sensitivity and its most appropriate use. Recommendations on future developments on some of the land under study have been deferred pending decisions and progress on infrastructure developments around Wolumla and the Rural Lands Review. Similarly, recommendations are made to delay development in some areas pending sewerage of the Village. And a number of areas in both the Future Urban Zone and the Rural Smallholdings Zone have been identified as unsuitable for dwellings. The land capability and environmental issues raised by the this Review have also suggested some underlying principles and strategies for any future development in the zones under study.
Recommendations

The specific zoning and development recommendations of this Review are illustrated in the attached Map. The following strategies are also recommended for guiding future development in the Wolumla area.

**Urban**

- That development of the Future Urban land be restricted until such time as the village is seweried and perhaps until its capacity is nearing exhaustion. A specific development control plan be prepared to control lot layout, density to ensure that future development options are not prejudiced.

- That the Masterplan mechanism be utilised in the development of the expanded Village area and development be staged to encourage more cost effective and efficient infrastructure installation.

- That identification of appropriate commercial, light industrial and community service “precincts” be undertaken as part of the Local Plan process.

**Rural Smallholdings**

- That a variety of lot sizes be applied in subdivisions for rural smallholdings, depending on proximity to environmentally sensitive riparian areas and vegetation landscapes.

- That siting of development in areas immediately adjoining the Village could take into account the possibility that the Village may need to expand again towards the middle of this century.

- That subdivision occur in such a way as to limit the number of properties encompassing the Frogs Hollow Creek upper reaches in order to both minimise the number having water extraction rights and to make it easier to gain agreement on, and a consistent approach to, riparian vegetation rehabilitation and management.

- That there be no further subdivision of Rural 1(c) land between South Wolumla and Ferndale Roads; that an EIA be required for any development proposals for the land situated south of Candelo-Wolumla Road and east of South Wolumla Road.

**General**

- That as a guiding principle, any development aim to minimise risks to sensitive environments such as wetland, swamp, riparian and forested areas through such mechanisms as:
  - limiting as far as practicable the amount of tree clearing in smallholding developments;
  - ensuring development approvals address mechanisms for minimising potential natural hazard risks such as stormwater runoff, flooding, soil erosion, and disturbance to natural hydrological patterns;
  - planning insistence on stormwater management infrastructure, especially in subdivision approvals e.g. settling ponds;
- protection of the creek and riparian corridors through minimal subdivision, fencing off, revegetating and rehabilitating with native understorey species.

- In line with this principle, it is recommended that No Dwellings be permitted in the following areas:
  - 20 ha of Floodplain Wetland and Swamp south of the Candelo-Wolumla Road
  - Riparian (buffer) vegetation and 38 ha of remnant and regrowth forest north of Candelo-Wolumla Road
  - Within the area of Rural 1(c) land identified as a possible Sewerage Treatment Works buffer zone, until such time as a decision is made regarding its siting
  - on any land within an extractive resources buffer.

- That where possible, existing streets and shared roads/access roads be utilised to minimise the number of access points onto the Candelo-Wolumla Road.

- That Council seek creative solutions for funding and recovering the anticipated cost of future infrastructure works in Village areas.
WOLUMLA ZONES 2 (f) & 1(c)
Rezoning Recommendations
Section 5: Bega-Tathra rural smallholdings

Rural residential living is one of the most popular forms of residential development in the Shire and there are claims from the real estate industry that there is insufficient supply to meet the increasing demand for smallholdings lots, particularly close to Bega. Interest from potential buyers in capital cities is reportedly growing as coastal areas closer to the cities become more expensive.

This review sought to gain insight into these existing zones in terms of their past development patterns, physical suitability for rural smallholdings land use, and remaining capacity for development. The adequacy of current supply to meet anticipated demand over the next twenty years was assessed in light of this analysis. Recommendations were made bearing in mind the objectives in the Lower South Coast Regional Environmental Plan No 2 on rural and urban residential development (see Appendix for details).

Description of the study area

The Bega-Tathra-Wolumla subregion contains eleven separate rural smallholdings 1(c) zones totalling 3,069 hectares or 6% of the land in the sub-region. Two of these zones are located around Wolumla, the remainder in the Bega-Tathra corridor. These zones are spread over thirteen localities. Jellat Jellat is the smallest zone at 34.2 ha and the Coopers Gully/Bega North/Buckajo zone is the largest at 884 ha. Each of these areas is reviewed separately below.

Development has been variable, with localities to the south and east of Bega towards the coast generally being the most popular. This is in part due to the subdivision and market availability of lots ready to be developed. In mid-2002, 58% of both rural residential land and dwellings were situated within a 5 km radius of central Bega. 9% of rural residential lots and 14% of dwellings were located 5-10 kms from Bega. The remaining 33% of lots and 27% of dwellings were located more than 10kms from central Bega.

Rural 1(c) supply/demand

Land Monitor Results

A summary of all the smallholdings zones in this subregion provides a picture of the variable rates of past development in the different zones. More detailed analysis is provided in the locality specific sections that follow.

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9 This figure excludes the 162.7 ha smallholdings zone in the southern part of Bournda locality which is physically part of the Tura Beach/Merimbula subregion.
There are currently 23 lots being used for non-dwelling purposes - such as shops, businesses, utilities, golf course, etc. The Land and Housing Monitor conservatively indicates that there is a full potential yield of 748 vacant subdivided smallholding lots across the subregion. If building application approval rates over the past five years continued and all possible subdivisions were undertaken and placed on the market, it is estimated that there would be approximately 28 years supply. If, however, the rate of Rural 1(a) development approvals for lots between 5000 m2 and 10 ha is also included, then this supply reduces to 19 years. Any future decisions regarding concessional lot availability could impact significantly on demand for lots in Rural 1(c) zones.
Table: Land Monitor for Rural 1(c) (Smallholdings) zones in the Bega-Tathra Wolumla Subregion, 2001

<table>
<thead>
<tr>
<th>Zone</th>
<th>Total Size (ha)</th>
<th>Existing Lots</th>
<th>Vacant Lots</th>
<th>Lots Approved Not Created</th>
<th>Potential Development (Lot Yield)</th>
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<th>Dwellings Approved/ Built (incl. dual occs)</th>
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<tr>
<td>Wolumla/South Wolumla</td>
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<td>1</td>
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<td><strong>Total</strong></td>
<td><strong>3069.82</strong></td>
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<td><strong>227</strong></td>
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<td><strong>1247</strong></td>
<td><strong>504</strong></td>
<td><strong>23</strong></td>
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</tbody>
</table>

Notes:  
@ 45 of these vacant lots are below the floodline and not suitable for dwellings.

# “Sapphire Coast Drive” includes the two small zones in the Wallagoot locality – located along Bournda Parkway and Turingal Head Drive.

Potential Development figures do not include lots that are unsuitable for development.

Smallholding zones

Bega

There are currently four smallholdings zones surrounding Bega township itself, mostly within 5 kms radius. The Coopers Gully/ Bega/Buckajo, Tarraganda and North Bega Town zones are separated from the township by the Bega River and its river flats of open, lower lying farmland. By default this provides greenfields relief and breaks the “urban sprawl”. The Bega South/Black Range zone begins approximately 3 kms south of the township and at the present time these two areas are separated by the Future Urban Zone. Rural residential opportunities within the Bega South Future Urban Zone are also discussed below.
Bega Town

There are two smallholdings zones within the Bega town boundaries. They resemble the more conventional – or “periurban” - type of smallholdings found adjacent to urban areas. They are mainly less than 0.5 ha in size and function much as if they were large suburban lots with a rural aspect.

A) Southern Town Zone:

Size: 5.6 ha  Dwellings: 8  
Est. 2001 Popn: 26  Other Uses: 1  
Existing Lots: 12  Undersized Lots: 2  
Vacant Lots: 3  Likely Vacant Lot Potential: 1  
Household Size: 2.4

This small zone is situated at the southern end of town between the RTA bypass reserve and a strip of Residential 2(a) lots along the Princes Highway. This zone contains 12 lots, two vacant lots of less than 0.5 ha and one vacant lot suitable for a dwelling. No issues were identified.

B) Northern Town Zone

Size: 49 ha  Dwellings: 35  
Est. 2001 Popn: 73  Other Uses: 7  
Existing Lots: 101  Unsuitable Lots: 44  
Vacant Lots: 49  Likely Vacant Lot Potential: 6  
Household Size: 2.1

The second, larger town zone is located north of the Bega River adjacent to the Bega river flats. It functions as an extension of the township containing both light industrial activity and “periurban” rural residential lots.

Supply/Demand

While this zone is likely to be very popular, a large proportion of the current lots are considered unsuitable for dwellings as they are below the Estimated 1 in 100 Year Floodline. Several of these lots have existing dwellings. Only two of the lots in this zone could be considered for further residential subdivision under this zoning. A number of the southern lots contain industrial activities.
**Constraints:**

This zone is almost fully settled due to its location and topographical constraints there is little scope for zone extension. It is situated along the Bega River and its floodplains, and an increase in effluent load from unsewered residential development over and above the current dwelling capacity is highly undesirable.

**Opportunities:**

Should sewer infrastructure ever be extended north of the Bega River to service the industrial zone to the west, it would be highly desirable to extend sewering to the 1(c) zone and rezone it to the higher density Residential 2(a).

**Conclusion:**

It is the conclusion of this review that this zone be reduced to 24 ha (to include 2.1 ha of Rural 1(a) land adjoining the northeast corner of the zone, with a potential of 2 lots for rezoning. This minor adjustment would provide a link with the small holdings zone to the west of the highway.

The remainder of the zone to be as follows:

- 17.7 ha of flood prone land to be backzoned to Rural 1(a) as it is Class 3 agricultural land\(^{10}\),

- 9.5 ha west of the Bega Cheese factory be rezoned to 4(a) to reflect actual use.

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\(^{10}\) Agricultural Land Classification Atlas, NSW Agriculture
Black Range/South Bega – Zone 1(c)

Size: 532 ha  Building Approval Rate p.a.: 2.6
Est. 2001 Popn: 262  Lots Approved Not Created: 6.8
Existing Lots: 131  Subdividable Lots: 15
Vacant Lots: 24  Proportion Unsubdivided: 24
Dwellings: 101  Likely Vacant Lot Potential: 60%
Other Uses: 5  Household Size: 83

This zone lies south of the Bega Future Urban Zone. The eastern/central portion is lower, mainly cleared, undulating country with scattered trees and some regrowth. The south western portion of the zone includes steeper, more heavily vegetated, “bush” blocks. Lot sizes range from 1-10 ha.

Supply and Demand

This zone still contains undeveloped lots with potential for further subdivision. At previous building rates this would translate to 12 years supply. The popularity of rural residential living opportunities relatively close to Bega is reflected in the uptake of subdivided lots and a relatively high building application rate over the last five years. As with other parts of the Shire, full development of this zone requires the subdivision and market availability of potential lots.
Constraints

Land capability and land use factors: Land in this zone ranges from undulating low hills with moderate limitations for development to steeper hills with high-severe limitations for development. It is generally suited only to rough grazing with occasional cropping. Soils are infertile and acidic and require erosion & groundwater pollution management. The southwestern portion of the zone is generally more forested, steeper and requires strict management controls for land clearing & development, including tree retention & revegetation. It was also identified by NPWS as potentially containing remnants of endangered ecological communities and this vegetation could form part of an extensive flora and fauna corridor currently being investigated by Council. At this stage the adoption of a precautionary approach to further subdivision and development is recommended to minimise impacts until such time as the regional habitat and corridor mapping is finalised and policy introduced.

Opportunities

This is a popular zone located close to Bega. Most lots lie within 10 kms drive of Bega town centre via major sealed roads bordering the zone on three sides. It is not expected that further development in this zone will significantly increase new road construction, although road maintenance and/or sealing may be an issue with further subdivisions. There is potential for expansion of this zone and it is highly likely that lots entering the market from further subdivisions in this zone will be quickly taken up.

Other Issues

An anomaly in this zone is the large 16 ha Council lot north of Kerrisons Lane which currently contains the saleyards, as well as the adjoining lots containing Country Energy and The Waste People. Such activities are not appropriate uses for a Rural 1(c) (Small Holdings) zone and these lots would be better rezoned as Mixed Use. A Mixed Use Zone would permit residential use of land in conjunction with small scale/business activities commensurate with a home based trade or other like business.

Conclusion

It is recommended that 19.7 ha of land along the northern boundary be rezoned to mixed use to more accurately reflect current land use activities. All other 1(c) zoning is to be retained in this area.
Bega/Coopers Gully/Buckajo – Zone 1(c)

Size: 884 ha  Building Approval Rate p.a.: 1.4

Est. 2001 Popn: 120  Lots Approved Not Created: 13

Existing Lots: 85  Subdividable Lots 33

Vacant Lots: 35  Proportion Unsubdivided 78%

Dwellings: 50  Likely Vacant Lot Potential: 137

Household Size: 2.4

Supply and Demand

By far the largest smallholdings zone in the subregion, this zone has experienced only small-scale development over the past 12 years. Most of this development has occurred in the eastern portion where access to Bega is easiest and the terrain is the least difficult. Subdivisions mostly range in size from 0.5 to 4 ha, lots tending to become larger with increased distance from Bega.

While there appears to be some latent demand for smaller subdivided lots, there has been limited market supply and the building application approval rate over the past five years was correspondingly low. At the present time, 33 lots are potentially subdividable and amount to more than 75% of the land in this zone. Half of the 14 lots approved for creation in this zone are part of a major concessional lot subdivision, reputedly for family rather than market purposes. The Land Monitor
indicates that there would be a potential yield of up to 173 vacant lots if subdivisions were undertaken.

**Constraints**

Land capability and land use factors: Topographically, the eastern portion of this zone is the most suited to small rural residential development. It is the most accessible to Bega, comprises gently to moderately inclined cleared slopes and is rated as having moderate limitations for both urban development as well as grazing and occasional crops. Grazing and viticulture are currently practised, particularly in the south east. The central portion of the zone comprises steep hills subject to rockfall, erosion and foundation hazards. It contains scattered regrowth open-forest considered of conservation value and is rated as having severe limitations for urban development, high limitations for grazing and extreme limitations for cultivation. The western part of the zone ranges from moderate to steep slopes assessed as having soil compaction and erosion hazards and restricted drainage capacity in some areas. Being mostly cleared, this soil landscape is considered a major contributor to the high bedload of rivers and strict management controls & revegetation are recommended. It is rated as having moderate to high limitations for urban development, moderate limitations for grazing and cultivation is not recommended.

**Conservation and Environment factors:** A preliminary flora and fauna review of the Buckajo/Coopers Gully area was undertaken in June 1998 (see Appendix). This review identified two substantial patches of regrowth Bega Dry Grass Forest, an endangered ecological community under the Threatened Species Conservation Act 1995, as well as isolated mature eucalypt trees and patches of remnant bush in gullies. The review recommended that any future development be designed in a way that minimises or prevents reduction in existing flora and trees, and if possible promotes conservation objectives. It also made a number of recommendations relating to specific lots – noted below. Future survey and mapping of these remnants will ascertain their condition and their possible role in an extensive flora and fauna corridor.

**Economic and Servicing Factors:** There are currently only three public dirt roads beyond the eastern side of the zone and development of the central and western areas would require significant road construction, upgrading and maintenance in hilly terrain. The difficult terrain also means that small lot sizes are not feasible and construction costs are likely to be higher. These areas are unlikely to be able to support the development densities normally associated with rural smallholdings zones and are likely to be very uneconomic to service. Hobby farming opportunities may also be limited in some parts due to the soil landscapes and terrain.
Opportunities

There would appear to be considerable potential for further subdivision in the eastern parts of this zone and new lots may be readily taken up should they enter the market. However, access to these parts of the zone would need to be upgraded.

Conclusion

The greater portion of this zone to the centre-west is not considered suitable for small rural residential smallholdings due to topographic, servicing and environmental constraints. This land may however be suitable for larger rural smallholding lots (greater than 10 hectares) with less servicing than is normally expected of the "periurban" type of rural residential settlement. This option is not generally available under Local Environmental Plan 2002. It has been suggested that larger smallholding lots (e.g. 20-40 ha) may also be a practical option for achieving more successful conservation outcomes. It is recommended that:

1. Most of this zone (716 ha in area) be reassessed for its land use capability. In this instance this land will be identified as “Investigations land”. (The purpose of “Investigations land” is discussed earlier in the report. p24)

2. 8 ha of land on the eastern side be rezoned to Industrial 4(a) to extend the current Bega Industrial Zone.

3. Consideration be given to achieving protection for the remaining vegetation remnants, for instance, by prohibiting development on the central hill on Portions 2602 and 2041 and prohibiting further subdivision of lots 1/175559, 2557/83063 and 54/819182. Consideration also be given to developing mechanisms for protecting remaining mature trees and minimising tree felling in the siting of developments.
Tarraganda

Size: 308 ha  Household Size: 2.8
2001 Popn: 263  Building Approval Rate p.a.: 2
Existing Lots: 113  Lots Approved Not Created: 7
Vacant Lots: 17  Subdividable Lots 16
Dwellings: 94  Land Area Unsubdivided 65%
Tarraganda rural residential zone is situated to the east of Bega, over the Bega River and river flats. It is located entirely above the estimated 100 Year Floodline and comprises cleared rolling to undulating low hills with isolated remnant trees. It is very popular for rural residential living and operates as a lower density rural suburb of Bega with a conventional "periurban" character.

**Supply and Demand**

Past experience indicates that any new supply entering the market at Tarraganda is quickly bought. Land Monitor assessment suggests that there is significant development potential remaining in the zone with 16 lots comprising 65% of the zone having potential for further subdivision. If the zone was subdivided to its full capacity the number of lots and population could double (by 110 lots and over 300 people).

**Constraints**

One quarter of the land at the western end of this zone is contained in a 78.5 ha working farm and is not currently available for development. Further, given the proximity of this property to the Brogo River, effluent management issues may arise should this property ever be subdivided for smallholdings use. Several Aboriginal heritage sites have been recorded in the developed south western end of the zone. Having been mostly cleared in the past for dairy farming, there would not appear to be any major flora or fauna conservation issues. Demand for road extensions and sealing could arise if development expands to the east.

**Opportunities**

The zone still contains considerable development potential and is rated as having low limitations for development apart from lower slopes and bedrock outcrops. Most parts of the zone are situated less than 4 kms by sealed road to Bega thus access to employment, medical, health, commercial, educational and social services is excellent. Much of this area is also serviced by public bus transport.

**Conclusion**

It is recommended that the large 78.5 ha farm at the eastern end of the zone be backzoned to Rural 1(a) to reflect current use. This would result in the removal of 39 potential smallholdings lots and 110 people. It is further recommended that the two Bega RSL lots (including a golf course) along the southern side of the zone be rezoned to 6(c) Private Open Space – a total of 13.3 ha.

There is limited opportunity for further extension of this zone due to the floodline, although there may be some potential to extend southwards. Given the advantages of this zone, its suitability for smallholdings use and its possible reduction in size due to the rezoning recommendation above, it is recommended that the Rural Lands
Review consider the appropriateness of extending this zone into adjoining Rural 1(a) land.

Bega South Future Urban Zone – Smallholdings Development

(See Section 3 for detailed discussion of this zone.).

A number of areas in the Future Urban zone could be rezoned to Rural 1(c) to more accurately reflect current use and meet future demand. Land in this zone is appropriate for such development from the viewpoint of its proximity to the town, the cleared landscape, and the efficiencies of using existing infrastructure, access and services. In considering options for rural residential development, other land use needs and the environmental constraints outlined earlier, were taken into account.

Current Development

At the present time there are a number of smallholdings type developments in the Future Urban Zone.

a) The staged subdivision along LynJohn Drive at the southern end of the town boundary was planned with future urban development envelopes included. This
subdivision is incorporated in the larger area being recommended for rezoning to urban residential use.

b) In the southwestern corner of the zone is an approved 110 ha staged smallholdings subdivision of 52 lots along Max Slater Drive. The first stage of 22 lots had been subdivided and mostly developed by mid-2002. Apart from the 12-15 ha of this land along the river earmarked by this review for environmental protection, it seems appropriate to rezone the remainder of this lot (94 ha) to Rural 1(c) (Smallholdings). This rezoning would reflect actual use and be a logical extension of the existing Black Range/South Bega smallholdings zone.

c) An 18ha smallholdings development lies south of the town boundary on the western side of the Princes Highway along Applegum Close. Rezoning this area to Rural 1(c) (Smallholdings) would also confirm current use.

Current Census data indicates that the newer areas south of Bega are popular with young families and anecdotal evidence also suggests there is currently unmet demand for rural residential lots close to Bega.

**Future Opportunities**

Providing for such demand is to be encouraged on economic, environmental and social grounds. As such, this Review recommends firstly that the Max Slater Drive subdivision be rezoned to rural residential. This would provide up to 36 vacant lots (85 people). The second recommendation is the creation of a 68 ha rural residential zone including the current Applegum Close development and southwards to Finucane Lane. This zone would have an estimated yield of 55 lots (130 people). Natural boundaries are created by roads, lot boundaries and landforms. Boundary Rd at the northern end and Finucane Lane at the southern end would enable access from existing roads onto the Princes Highway. Much of this proposed zone is also situated east of a ridgeline, which would provide a natural physical separation between most of the smallholdings zone and the adjoining agricultural land to the west. Ending the zone at Finucane Lane would also provide a corridor of agricultural land, including a hill, between this zone and the smallholdings zone further south along Max Slater Drive.

**Jellat**

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<th>Size: 34 ha</th>
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<td>Dwellings: 3</td>
<td>Likely Vacant Lot Potential: 14</td>
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The smallest of the zones in the subregion is a small area of 34 hectares of higher land situated above river flats between Bega and Kalaru. Its subdivision potential is limited by environmental constraints – forest, steep slopes and a wetland buffer - and an approved subdivision of 14 lots is likely to exhaust the potential lot yield of this zone. The final population is expected to be 30-40 people. Given its scenic rural outlook and its location - a short drive from both Bega and Kalaru and a short walk to the Tathra-Bega bus route- it is not surprising that the lots have reportedly sold prior to subdivision.

**Kalaru**

- **Size:** 465 ha
- **Vacant Lots:** 44
- **Household Size:** 2.7
- **Subdividable Lots:** 22
- **Est. 2001 Popn:** 315
- **Dwellings:** 117
- **Building Approval Rate p.a.:** 7.4
- **Proportion Unsubdivided:** 60%
- **Existing Lots:** 161
- **Other Uses:** 3
- **Lots Approved Not Created:** 30
- **Likely Vacant Lot Potential:** 113
The Kalaru Rural 1(c) (Smallholding) area is comprised of two large, narrow zones extending for 5.5kms east and west of Kalaru village along the Bega-Tathra Rd. It is a popular rural residential living area for families being located between Bega and Tathra, close to the Bega River, coast, National Parks and reserves. The existing smallholdings range from conventional periurban lots through to larger “bush blocks”.

**Supply and Demand**

Kalaru has experienced the highest building rate of any of the zones, averaging 7.4 building application approvals between 1997 and 2001. It is estimated, from dwelling numbers, that the population of the smallholdings zones in Kalaru increased by up to 50% between 1996 and the end of 2001. If the potential of this zone was fully realised, it is estimated that the population would reach as much as 750 people.

Several factors are likely to affect the takeup of rural smallholding lots in Kalaru in the short to medium term future. The most obvious is the availability of subdivided smallholding lots on the market. The second is the popularity and market availability of sewered village lots in the near future, which could temper demand for larger unsewered 1(c) lots for a time. However, given the high amenity of this location, it is expected that any further subdivisions of smallholding lots will continue to be popular in the Kalaru area.

**Constraints**

Land capability and land use factors: The Kalaru smallholdings zone comprises a range of soil landscapes. It varies from gently undulating plain through moderately inclined slopes to steeper, stonier hills, and from cleared land to disturbed forest areas. The land is mostly non-arable with low fertility and variable suitability for grazing. Most of the zone is assessed as having low to moderate limitations for dwelling development. Site specific assessments are required for localised drainage issues, soil toxicity and corrosion hazards, effluent disposal capacity, selection of safe building sites & access roads. Adequate provision needs to be made for water supply and both revegetation and soil erosion controls are recommended.

Kalaru is within the NSW Coastal Zone and the smallholdings areas are in close proximity or adjoin the environmental protection zones of the Bega River. The NPWS has identified the Kalaru area as “contain(ing) forest communities that form part of a significant regional fauna and flora corridor” for a number of threatened species. They are rated as either medium or high bushfire hazard and developments will need to comply with the Planning for Bushfire Protection Manual and be referred to the Rural Fire Service for comment. In these areas, larger subdivisions would normally be recommended.

Parts of the Rural 1(c) zone have access to reticulated water supply (previously DCP 34), which is likely to be an issue as septic absorption potential is generally poor. The
Sewering of the village will significantly reduce the current effluent load on the hydrology system, however, consideration needs to be given by Council to revising its policy on access to the piped water supply for smallholding lots at Kalaru.

Opportunities

Over the next several decades, Kalaru is likely to develop further as a significant residential zone between Bega and Tathra. Sewering of the village will significantly increase its dwelling capacity and reduce the effluent load. The area as a whole is likely to become more popular as residential lots in coastal urban centres become scarcer. Situated along the Bega-Tathra Rd and being a narrow zone, it is relatively easy to service with utilities and is currently serviced by the Tathra-Bega bus. Road servicing may be an issue long term, however, initial road construction costs for the remaining unsubdivided lots will be borne by developers. A major servicing issue that may arise in the future could be demand for a preschool or primary school.

Other Issues

There are heavily forested sections of Rural 1(c) land to the north, northwest and west of the village. These lots are largely undeveloped and are classified as medium to high bushfire hazard. There is an opportunity at this time to review the zoning of this land on the basis of environmental and conservation factors and to assess its suitability for specific land uses. It is therefore recommended that development of this land be frozen to enable a reassessment of land use options to be referred to the Rural Lands Review. This would result in 1 small lot and parts of 6 large lots being removed temporarily from development.

Village Expansion: It has been prudent as part of this review to identify land suitable for future village expansion in order for it to be catered for in the proposed sewer program. At the present time, most of the village zone lies to the south of the Bega-Tathra Rd, with a narrow strip to the north. It is proposed that the northern boundary be extended to incorporate 12ha of cleared Rural 1(c) land to the north. This is a logical extension given its topography, current land use and local road patterns. It is a compact area, readily serviceable by both utilities and sewer infrastructure. It is estimated that this area could yield at least 70 dwelling lots. Given the current vacant supply, it is suggested that this land be rezoned to village. This would remove 3 lots and parts of 2 lots from Rural 1(c) zoning.

Conclusion

12ha of cleared land adjoining the north of the current village boundary, be rezoned to 2(v) Village (consistent with Council’s future sewer boundary) and any further development be controlled by a new DCP or a revamp of existing DCP Kalaru Village until sewer is available.
126 ha of forested Rural 1(a) and 1(c) zoned land north and east of the village (as indicated on the attached map) be reassessed for its land use capability. In the instance this area will be identified as “Investigations land”. The purpose of Investigations land is discussed earlier in the report (p 24) Protection of at least part of this land for habitat corridor conservation may be warranted and mechanisms for achieving this purpose would be required (e.g. Masterplan, Development Control Plan or a S.88B instrument).

29.8ha of existing Rural 1(c) land be retained but any development be the subject of a Masterplan having regard to the environmental constraints affecting this land. This is consistent with the requirements of SEPP No 71.
KALARU RURAL 1(C) ZONES
Rezoning Recommendations
Sapphire Coast Drive

There are two smaller Rural 1(c) Smallholding zones in the Wallagoot locality comprising a total of 91 ha. Located midway between Bega and Merimbula, Wallagoot is within reasonable commuting distance of two major employment centres. As such, it experienced the third highest dwelling application approval rate (averaging 3.6 applications per year).

**Bournda Parkway 1(c) zone**

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<td>Proportion Unsubdivided</td>
<td>58%</td>
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<td>Vacant Lots:</td>
<td>14</td>
<td>Likely Vacant Lot Potential:</td>
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<tr>
<td>Dwellings:</td>
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</table>

This zone of 69 ha is located on the northern boundary of Wallagoot locality, 2.5 kms south of Kalaru and 4 kms north of Wallagoot Lake. It is a small rural residential development with lots generally less than 1 ha. It is mostly surrounded by Rural 1(a) land, bordering the Bournda Nature Recreation Reserve (Zone 8) in the southeast corner.

**Constraints**

This zone comprises both cleared and uncleared low hills. The soil landscape is assessed has having moderate to high limitations for urban development with poor subsoil absorption of effluent. Soils are very strongly acidic, of low fertility and highly erodible.

**Supply & Demand**

This zone appears to have been moderately popular and has some remaining potential with 13 vacant subdivided lots and one unsubdivided lot of 16 ha. Due to topographical constraints such as creeks, a swamp and partially forested areas, the potential yield for the unsubdivided land is likely to be 10-16 lots.

**Conclusion**

This zone still contains capacity for further development and as such, no extension is being recommended at this point in time.

**Turingal Head Road 1(c) Zone**

<table>
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<th>Size:</th>
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<tbody>
<tr>
<td>Household Size:</td>
<td>2.5</td>
<td>Vacant Lots:</td>
<td>17</td>
</tr>
</tbody>
</table>
The smallest of the Wallagoot zones is situated approximately halfway between Kalaru and Wallagoot Lake (by road). It is a long narrow zone bordered by Bournda Nature Recreation Reserve (Zone 8) in the north, environmentally protected land in the south (Zone 7(d) and Rural 1(a) to the south east.

**Supply and Demand**

Nearly half the lots in this small zone are vacant with some being on the market. Despite being fully serviced with underground power, water and sealed roads, this zone does not appear to be quite as popular as others, for a number of possible reasons. It is situated further from villages and towns than most other 1(c) zones, is only accessible from Sapphire Coast Drive, and much of it has a “suburban” ambience despite being largely surrounded by forest and bushland. Nor does it have such attributes as privacy, scenic outlooks, open space, or close access to either a service centre or the coast that are available elsewhere.

**Constraints**

The primary concern for development in this zone is preventative soil erosion strategies during and after construction and ongoing monitoring of effluent disposal systems. Adequate bushfire hazard reduction strategies need to be adopted around the northern boundaries of this zone.

**Conclusion**

This zone still has development potential and at the current time no extension of the zone is planned due to the significant potential remaining in the nearby zones at Kalaru.

**Wallagoot Lake/Bournda**

<table>
<thead>
<tr>
<th>Description</th>
<th>Quantity</th>
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<tbody>
<tr>
<td>Est. 2001 Popn:</td>
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</tr>
<tr>
<td>Lots Approved Not Created:</td>
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<tr>
<td>Existing Lots:</td>
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<tr>
<td>Vacant Lots:</td>
<td>17</td>
</tr>
<tr>
<td>Dwellings:</td>
<td>34</td>
</tr>
<tr>
<td>Other Uses:</td>
<td>5</td>
</tr>
<tr>
<td>Likely Vacant Lot Potential:</td>
<td>183</td>
</tr>
<tr>
<td>Proportion Unsubdivided:</td>
<td>87%</td>
</tr>
<tr>
<td>Unsubdivided Lots:</td>
<td>13</td>
</tr>
<tr>
<td>Household Size:</td>
<td>2.5</td>
</tr>
<tr>
<td>Size:</td>
<td>534 ha</td>
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**Bega Valley Shire Council**

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<td>Existing Lots:</td>
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<tr>
<td>Likely Vacant Lot Potential:</td>
<td>17</td>
</tr>
<tr>
<td>Dwellings:</td>
<td>19</td>
</tr>
</tbody>
</table>

---

The smallest of the Wallagoot zones is situated approximately halfway between Kalaru and Wallagoot Lake (by road). It is a long narrow zone bordered by Bournda Nature Recreation Reserve (Zone 8) in the north, environmentally protected land in the south (Zone 7(d) and Rural 1(a) to the south east.

**Supply and Demand**

Nearly half the lots in this small zone are vacant with some being on the market. Despite being fully serviced with underground power, water and sealed roads, this zone does not appear to be quite as popular as others, for a number of possible reasons. It is situated further from villages and towns than most other 1(c) zones, is only accessible from Sapphire Coast Drive, and much of it has a “suburban” ambience despite being largely surrounded by forest and bushland. Nor does it have such attributes as privacy, scenic outlooks, open space, or close access to either a service centre or the coast that are available elsewhere.

**Constraints**

The primary concern for development in this zone is preventative soil erosion strategies during and after construction and ongoing monitoring of effluent disposal systems. Adequate bushfire hazard reduction strategies need to be adopted around the northern boundaries of this zone.

**Conclusion**

This zone still has development potential and at the current time no extension of the zone is planned due to the significant potential remaining in the nearby zones at Kalaru.

**Wallagoot Lake/Bournda**

<table>
<thead>
<tr>
<th>Description</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Est. 2001 Popn:</td>
<td>85</td>
</tr>
<tr>
<td>Lots Approved Not Created:</td>
<td>6</td>
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<tr>
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<td>Dwellings:</td>
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<td>13</td>
</tr>
<tr>
<td>Household Size:</td>
<td>2.5</td>
</tr>
<tr>
<td>Size:</td>
<td>534 ha</td>
</tr>
</tbody>
</table>
This zone is situated west of Wallagoot Lake and extends to include 1 lot of 8 ha in the Bournnda locality. It is located approximately 5 kilometres from Kalaru, 12.5 kms from Bega and 13 kms from Merimbula.

**Supply and Demand**

At the time of this review only 13% of potential lot land had been subdivided, into 33 “bush” and rural lots. Most of the subdivisions so far have been in the southern portion of the zone, with a handful along the northern boundary. The average size of subdivided lots in the zone at the present time is just under 2 ha. There is a 15 lot Community Title subdivision in the southern part of the zone, and a major subdivision proposal for 121 Community title lots covering much of the northern half of the zone is currently before Council. Significant potential still exists in this zone, in part due to its size, and it is estimated that should it all be developed, the population could reach nearly 550 people.

**Land capability and land use factors**

The eastern central part of this zone was entirely cleared and used for farming, having generally lower slopes and moderate limitations for grazing and occasional fodder cropping. The forested and steeper parts of the zone have moderate to severe constraints for agriculture and the creek running through this zone, and surrounding land, is considered unsuitable for building. Along with a portion of the south eastern end of the zone, the creek provides drainage into Wallagoot Lake.

The zone primarily consists of strongly acidic, infertile and “droughty” type soils with riverine soils surrounding the creek. With moderate to high limitations for urban development, the primary concerns for rural smallholdings development in this zone are the extent of any further tree clearing, bushfire risk, the impact of effluent disposal systems on the lake system as the number of dwellings increases, and preventative soil erosion strategies during and after construction.

**Constraints**

This zone is part of the Wallagoot catchment draining directly into the coastal lake. The Healthy Rivers Commission has assessed Wallagoot Lake as having “a high natural sensitivity (risk) in a largely unmodified catchment”. Regarded as having a low existing stress condition, it was assessed as having a potential for restoration of natural ecosystem processes and suitability for management for significant protection. (HRC, 1997)

The western and southern sides of the zone also contain forested lots adjoining the Bournnda National Park and are assessed as having a medium-high bushfire risk for any low density development that doesn’t involve significant tree clearance. The NPWS has identified the northern end of the zone as being a significant corridor area with habitat of the Glossy Black Cockatoo and Yellow-bellied Glider.
Opportunities

While significant development potential appears to exist in this zone, the environmental and conservation constraints suggest that larger minimum lot sizes would be warranted.

Other Issues

- A subdivision proposal for 121 Community title lots covers much of the northern half of the zone. In recognising some of the limitations of this land, the subdivision proposal includes a private sewage treatment plant with an effluent irrigation area on part of the farmland. This proposal, which would service more than half the lots in the zone, could minimise the impact of effluent on the hydrology system. However, its effectiveness would depend on the system design, ongoing maintenance and monitoring. Issues related to such a system are discussed earlier in the report. A second issue relating to this proposal is that it would require the clearing of a significant amount of forest, which extends into the locality from the Bournda National Park. As a result, an Environmental Impact Assessment has been requested for the development proposal.

- **Servicing Factors:** A number of long term servicing issues arise from full development of the zone as well as the Community Development proposal. While access to the zone from north and south is provided by the sealed Sapphire Coast Road, substantial development within the zone is likely to place significant demand on Council for road maintenance and upgrading. The Community Title developments place the responsibility for construction and maintenance of roads, and in one case a sewerage system, in the hands of the developer and later residents. The long term feasibility of such schemes remains unclear and at a minimum would involve Council in monitoring standards and environmental impacts. There is some concern that in the future, particularly if the sewerage system begins failing, Council could be required to take over its management and costs. Recent public concerns about the contracting out of sewerage and water construction services and maintenance, suggest that at this stage neither the Council nor the public may be willing to support privatisation of sewer infrastructure and management at this time.

- The large size of this zone, which has a potential for over 215 dwellings and nearly 550 people raises a number of issues. The appropriateness of a smallholdings zone of such size being located in a hydrologically sensitive location is questionable. Also, having the potential population of a large village also suggests that there will be future pressure for village type services, in particular and given the high proportion of young families in smallholdings zones, for additional school buses and/or a primary school. The question arises as to whether this is either desirable or affordable, when there is considerable future capacity in both Bega and Kalaru.
Conclusion

There is concern that some of the existing stands of forest in this zone are likely to be important as flora and fauna corridors within the subregion. This is particularly the case in the northern sections of the zone where cleared land breaks the connectivity of forests on the eastern and western sides, and to the north. As such, it is highly recommended that any future subdivisions of forested areas in this zone be designed to minimise land clearance requirements, and to protect such habitat corridors. Larger lot sizes would be advisable for both habitat and water catchment protection, and any development proposals subject to environmental impact, bushfire hazard reduction and cultural heritage assessments.

On the other hand, should the proposed community title subdivision not eventuate for any reason, it will be preferable to defer further development in the northern part of this zone until the Rural Lands Review concludes on such issues as alternative rural living opportunities in forested and/or environmentally sensitive areas, especially larger “hobby farm” subdivision sizes. This recommendation would affect 70% or 370ha of the land in this zone - or 9 current lots with a possible lot yield of 133 lots.

If this is the case then this area will become "Investigations land". The purpose of Investigations land is discussed earlier in the report (p 24).
Conclusion - rural residential zones

This Review has concluded that there would appear to be sufficient rural residential living opportunities in the Bega-Tathra-Wolumla subregion for at least the next two decades.

Given past growth patterns and the likelihood of urban and village lot supply significantly increasing, it is not considered necessary at this point in time to rezone additional land beyond the recommendations made in this report. Reviews of other smallholding zones in the Shire will be completed over the next twelve months, followed by a Rural Lands Review, both of which will contribute to the development of a Shirewide Residential Settlement Strategy. However, it would seem advisable for identification of possible new and extended smallholdings areas to be undertaken by the Rural Lands Review for use later in the century.

The recommended subdivision freeze on a significant portion of land currently zoned for rural residential use has been made for a number of reasons. Approximately one quarter of this land is currently in use for agriculture. There is a need “to minimise the cost to the community of fragmented and isolated development” and to consolidate development with existing settlements. Thus identification of more traditional “periurban” type rural residential opportunities around townships is required. In addition, there is a need to consider alternative zoning options other than what is currently available under LEP 2002. In particular, it is recommended that the feasibility of enabling larger rural residential lot subdivisions appropriate for hobby or alternate farming needs, as well as environmental and conservation purposes, be explored.
Appendices
### Appendix A: Lower South Coast Regional Settlement Strategy – Identified Settlement Issues And Areas Of Regional Environmental Significance.

<table>
<thead>
<tr>
<th>SETTLEMENT:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bega:</strong> there is significant growth potential in the Future Urban Zone, which requires a strategy to coordinate such growth and service provision;</td>
<td>This report</td>
</tr>
<tr>
<td><strong>Wolumla:</strong> that priority be given to a development strategy for the Future Urban Zone;</td>
<td>This report</td>
</tr>
<tr>
<td><strong>Tathra/Tathra River Estate:</strong> environmental constraints may limit potential for expansion in the long term and a strategy for the provision of a sewerage system requires finalisation; Investigations into areas for potential urban expansion will be dealt with by Council in a separate planning exercise when the current supply is reviewed;</td>
<td>Tathra sewerage treatment plant upgrade highest priority &amp; completion currently expected by 2004. Limited capacity for expansion re significant environmental constraints. DCP.</td>
</tr>
<tr>
<td>Villages such as <strong>Kalaru and Wolumla</strong> may have minimal capacity for growth without the provision of sewer systems and priority needs to be given to resolving effluent treatment systems for these village zones;</td>
<td>Council finalising plans for upgrading and constructing sewer infrastructure in this subregion Kalaru &amp; Wolumla amongst priority villages expected to be sewered by 2010 at the latest. Current environ-mental status of villages being surveyed by Council OSSM staff.</td>
</tr>
<tr>
<td><strong>Mogareeka:</strong> confirmation that Council’s position to limit village expansion is warranted given natural features and lack of sewer;</td>
<td>DCP</td>
</tr>
<tr>
<td>Growth areas with a high demand for residential development need to <strong>utilise land more efficiently</strong> as the physical expansion of these towns is constrained (e.g. Tathra);</td>
<td>Residential DCP being finalised. Urban zoning to be reassessed as part of Local Plan process.</td>
</tr>
<tr>
<td>Allowance needs to be made for <strong>multiple dwelling development</strong> in higher density settlements.</td>
<td>Residential DCP being finalised. Urban zoning to be reassessed as part of Local Plan process.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>REGIONAL SIGNIFICANCE:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>the land along the <strong>Black Range</strong> south of Bega in its function as a vegetated habitat corridor</td>
<td>Noted for this report. Complex interdepartmental vegetation mapping begun.</td>
</tr>
<tr>
<td>the Wallagoot Lake catchment</td>
<td>Noted for this report. Complex interdepartmental vegetation mapping begun.</td>
</tr>
<tr>
<td>the land known as the <strong>Jellat Flats</strong> located between Bega and Kalaru.</td>
<td>Below floodline, so no further development likely.</td>
</tr>
</tbody>
</table>
## Appendix B: Development Control Plans & contribution plans relating specifically to study areas, Bega Valley Shire, December 2002

<table>
<thead>
<tr>
<th>DCP Number &amp; Title</th>
<th>Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>DCP 20 Tathra Headland</td>
<td>Aims to control development on visually prominent Tathra Headland. Controls building heights.</td>
</tr>
<tr>
<td>DCP 18 Kalaru Village</td>
<td>Aims to organise the future development of Kalaru into precincts for future commercial, residential, recreational and light industrial development (only after further sewerage capacity is available).</td>
</tr>
<tr>
<td>DCP 17 Tarranganda 1(c)</td>
<td>Aims to limit further residential development in that part of the zone where the provision of town water cannot be economically supplied.</td>
</tr>
<tr>
<td>DCP 21 Tathra River Estate Stage One</td>
<td>Due to the limited capacity of the planned Tathra sewage system, further development in Tathra River Estate is restricted to a single dwelling house on each existing lot (i.e. no dual occupancy or further subdivision).</td>
</tr>
<tr>
<td>DCP 19 Mogareeka Village</td>
<td>Due to the limited capacity of the planned Tathra sewage system, further development in Mogareeka is restricted to a single dwelling house on each existing lot (i.e. no dual occupancy or further subdivision). Five exceptions are allowed two houses through subdivision.</td>
</tr>
<tr>
<td>DCP 10 Rural Water Supply Areas</td>
<td>Defines areas within rural zones (primarily Rural 1(c)) that are able to connect to reticulated water supply.</td>
</tr>
<tr>
<td>DCP 9 Rural Residential Development</td>
<td>Specifies development standards and criteria for determining minimum subdivision sizes to encourage sustainable, economic and appropriate rural residential development.</td>
</tr>
<tr>
<td>DCP66A2 Bega South Water Supply</td>
<td>These DCPs define areas within Rural 1(c) and Future Urban zones that are able to connect to reticulated water supply. Conversion to Development Service Plans as per Water Management Act 2000 underway.</td>
</tr>
<tr>
<td>DCP 34A1 Kalaru Water Supply</td>
<td></td>
</tr>
<tr>
<td>S94CP1 Existing Rural Roads</td>
<td>Specifies contributions from developers towards improving existing rural roads.</td>
</tr>
<tr>
<td>S94CP4 Old Wallagoot Road, Kalaru</td>
<td>Specifies contributions applying to subdivision developments which create additional traffic demands on Old Wallagoot Road, in order to upgrade to a higher standard road.</td>
</tr>
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</table>
Appendix C: Land monitor summary of the Bega-Tathra-Wolumla subregion, September 2001

Last Updated: Sep-02

<table>
<thead>
<tr>
<th>ZONING</th>
<th>BEGA TATHRA WOLUMLA - TOTAL RESIDENTIAL</th>
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<td>Existing Lots</td>
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<tr>
<td>LOCALITY</td>
<td></td>
</tr>
<tr>
<td>Bega NW - Rural</td>
<td>17 58 49 11 9 1 1</td>
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<tr>
<td>Bega South - Rural</td>
<td>184 118 51 41 51 9 63 66 4</td>
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<td>Bega Town</td>
<td>1780 1935 289 9 137 78 49 1630 66</td>
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<tr>
<td>Black Range</td>
<td>48 65 32 10 9 8 25 1</td>
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<tr>
<td>Bournda - Nthn Only</td>
<td>1 1 1</td>
</tr>
<tr>
<td>Buckajo</td>
<td>18 67 57 1 8 1 9</td>
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<tr>
<td>Cooper Gully</td>
<td>50 98 67 1 19 5 26</td>
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<tr>
<td>Jellat Jellat</td>
<td>3 17 14 13 1</td>
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<tr>
<td>Kalaru</td>
<td>238 376 191 59 52 44 141 8</td>
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<tr>
<td>Mogareeka</td>
<td>46 48 8</td>
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<tr>
<td>South Wolumla</td>
<td>9 16 9 1 2 1 6</td>
</tr>
<tr>
<td>Tarraganda</td>
<td>113 204 110 7 17 6 88 2</td>
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<tr>
<td>Tathra</td>
<td>827 965 93 1 54 35 832 32</td>
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<tr>
<td>Sapphire Coast Dr</td>
<td>67 82 46 31</td>
</tr>
<tr>
<td>Wallagoot</td>
<td>50 216 182 6 16 5 29 5</td>
</tr>
<tr>
<td>Wolumla</td>
<td>303 225 61 2 128 14 149 16</td>
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<tr>
<td>TOTAL</td>
<td>3754 4491 1260 162 537 87 241 3079 135</td>
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</table>

<table>
<thead>
<tr>
<th>ZONING</th>
<th>1(c) RURAL (SMALL HOLDINGS)</th>
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<tbody>
<tr>
<td>LOCALITY</td>
<td>Existing Lots</td>
</tr>
<tr>
<td>Bega NW - Rural</td>
<td>17 58 49 11 9 1 1</td>
</tr>
<tr>
<td>Bega South - Rural</td>
<td>83 118 51 5 15 12 56 4</td>
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<tr>
<td>Bega Town</td>
<td>101 50 7 52 44 2 42 8</td>
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<tr>
<td>Black Range</td>
<td>48 65 32 10 9 8 25 1</td>
</tr>
<tr>
<td>Bournda - Nthn Only</td>
<td>1 1 1</td>
</tr>
<tr>
<td>Buckajo</td>
<td>18 67 57 1 8 1 9</td>
</tr>
<tr>
<td>Cooper Gully</td>
<td>50 98 67 1 19 5 26</td>
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<tr>
<td>Jellat Jellat</td>
<td>3 17 14 13 1</td>
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<tr>
<td>Kalaru</td>
<td>161 230 113 30 44 40 77 3</td>
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<tr>
<td>South Wolumla</td>
<td>9 16 9 1 2 1 6</td>
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<tr>
<td>Tarraganda</td>
<td>113 204 110 7 17 6 88 2</td>
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<td>Sapphire Coast Dr</td>
<td>67 82 46 31</td>
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<tr>
<td>Wallagoot Lake</td>
<td>50 216 182 6 16 5 29 5</td>
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<tr>
<td>Wolumla</td>
<td>21 28 10 4</td>
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<td>TOTAL</td>
<td>742 1250 748 85 227 44 93 411 23</td>
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<tr>
<td>ZONING</td>
<td>BEGA TATHRA-WOLUMLA - TOTAL RESIDENTIAL</td>
</tr>
<tr>
<td>---------</td>
<td>-----------------------------------------</td>
</tr>
<tr>
<td>LOCALITY</td>
<td>Existing Lots</td>
</tr>
<tr>
<td>---------</td>
<td>----------------</td>
</tr>
<tr>
<td>ZONING</td>
<td>10 FUTURE URBAN</td>
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<td>Bega South - Rural</td>
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<td>Bega Town</td>
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<tr>
<td>Wolumla</td>
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<td>TOTAL</td>
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<tr>
<td>ZONING</td>
<td>2(v) VILLAGE</td>
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<td>Kalaru</td>
<td>77</td>
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<tr>
<td>Mogareeka</td>
<td>46</td>
</tr>
<tr>
<td>Wolumla</td>
<td>240</td>
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<tr>
<td>TOTAL</td>
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<tr>
<td>ZONING</td>
<td>2(a) RESIDENTIAL &quot;A&quot;</td>
</tr>
<tr>
<td>Bega Town</td>
<td>1428</td>
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<tr>
<td>Tathra</td>
<td>613</td>
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<tr>
<td>TOTAL</td>
<td>2041</td>
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<tr>
<td>ZONING</td>
<td>2(b) RESIDENTIAL &quot;B&quot;</td>
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<tr>
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<tr>
<td>Tathra</td>
<td>34</td>
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<tr>
<td>TOTAL</td>
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<tr>
<td>ZONING</td>
<td>2(c) RESIDENTIAL (TOURIST)</td>
</tr>
<tr>
<td>Bega Town</td>
<td>2</td>
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<tr>
<td>Tathra</td>
<td>180</td>
</tr>
<tr>
<td>TOTAL</td>
<td>182</td>
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</table>
Appendix D: Future urban zones – flora & fauna survey report

REVIEW OF FLORA AND FAUNA FOR BEGA AND WOLUMLA 10 ZONE AND WOLUMLA 1(C)

(Review & report prepared by Graham Roche, Natural Resources Officer, Bega Valley Shire Council in conjunction with consulting botanist Jackie Miles. July 2001)

INTRODUCTION

An assessment of flora and fauna values of land within the 10 zone at Bega and Wolumla, and the 1(c) zone at Wolumla was undertaken as part of a planning review of those zones.

In particular the assessment focussed on identifying whether or not remnant vegetation constituted Endangered Ecological Communities identified in the Threatened Species Conservation Act 1995 (TSCA), or vegetation types identified as being of conservation significance in Council’s State of the Vegetation report.

Fauna values were identified from potential habitat rather than specific survey.

BEGA 2(f) ZONE

Vegetation within the 10 zone to the south of Bega is typically scattered Eucalyptus tereticornis and Angophora floribunda. There is little remaining native ground cover and there is a high level of invasion from both pasture grasses and weeds. Remnant mature trees in the area indicate that the area most likely once supported the vegetation type “Bega Dry Grass Forest”, which is listed as an endangered ecological community. It is considered that the vegetation type is degraded to the point now where it is no longer Bega Dry Grass Forest. However, consultation with staff from the National Parks and Wildlife Service has identified the possibility that some Service staff with botanical expertise could consider the vegetation to still fall under the definition of an endangered ecological community.

Fauna values of remnant vegetation within the 10 zone are considered to be potentially significant for a number of hollow dependant species given the size and age of remnant trees, and the extent of hollow formation. Threatened species likely to utilise hollow trees in the area would mainly be bats.

The current land used practices in the Bega 10 zone are such that there is no opportunity for regeneration of trees and, consequently, there will be a gradual loss of mature trees from the area over time.

Areas that are considered to be of particular conservation significance in the 10 zone are the wetlands along the Bega River on the eastern boundary of the zone, and remnant vegetation in the south-west corner of the zone. Stands of remnant
Redgums and Rough-bark Apples are not considered to be an endangered ecological community, however, mature trees within the 10 zone should still be afforded some conservation priority. They provide potential habitat for hollow dependant species, they are all that remain of a highly depleted vegetation type, and they have historical value in that they are likely to be older than the town of Bega.

**WOLUMLA 10 ZONE AND 1(C) ZONE**

Remnant vegetation in the 10 zone and 1(c) zone at Wolumla comprises mainly vegetation types 19 – Bega Wet Shrub Forest, and 60 – Floodplain Wetland. Neither is listed under the TSCA, however, Council identifies both as being vegetation types of conservation significance.

A large patch of remnant vegetation occurs in the northern part of the Wolumla study area. It has been subject to relatively high levels of disturbance over the years, which is evident by the amount of regrowth. However, the remnant has a very low level of weed invasion, with blackberry being the most significant weed in the area. There are a number of mature trees and hollow trees in the remnant. There are some elements of Bega Dry Grass Forest, an endangered ecological community, on the ridge-top and north-facing slope. The remnant is considered to have a relatively high conservation value because of its size, type, and condition. It is considered to have a high suitability for recovery.

It is considered unlikely that the remnant provides significant habitat for threatened fauna, however it is an important feature of the landscape with respect to vegetation and habitat recovery.

Remnant vegetation occurring in gully areas across the Wolumla study area is generally Floodplain Wetland. It occurs in a relatively large patch to the north of the Candelo/Wolumla Road, and smaller patches in gully areas near the intersection of the Candelo/Wolumla Road and the South Wolumla Road. All areas of Floodplain Wetland should be afforded a high conservation priority. It is a vegetation type that is depleted and under-represented in the current reserve system, and it plays an extremely important role in preventing gully erosion, which is a serious environmental problem in Frogs Hollow Creek at Wolumla. The Floodplain Wetland occurring near the South Wolumla Road is considered to be a good quality remnant with a very high conservation priority.

**CONCLUSIONS**

For the purpose of reviewing the current zoning at Bega and Wolumla it should be recognised that none of the current zoning provides significant protection to conservation values of remnant vegetation. Regardless of whether or not remnant vegetation within the 10 zone at Bega is Bega Dry Grass Forest, future land use planning efforts should at least attempt to retain the remaining trees for their habitat
and landscape value. Opportunities currently exist for achieving some form of conservation outcome, such as voluntary conservation agreements with the National Parks and Wildlife Service or vegetation management agreements with the Department of Land and Water Conservation or Council, and could be sought as part of rezoning or development proposals. Further investigation and consultation with the National Parks and Wildlife Service would be required to determine the viability of conservation options particularly in the 10 zone at Bega.
Appendix E: Principles for development, Regional Environment Policy No. 2, NSW State Government

Principles for development as set out in Regional Environment Policy No.2, (Lower South Coast), Section 37.

Urban Development

The REP policy for the rezoning of land for urban settlement states that an urban settlement strategy is required and shall have regard to the following principles:

- concentrated in areas adjoining existing settlements which already have a full range of urban services & facilities;
- located in a manner which will maintain the environmental and visual quality of the surrounding area
- a wide range of services and facilities should be encouraged in the principal townships to cater for regional urban growth
- the rural character and purpose of villages and their heritage values should be protected
- the character, role and function of small coastal settlements should be maintained
- buffer areas between urban centres to prevent ribbon coastal development
- improvement and protection of the water quality of waterways in or adjacent to urban areas
- protection from urban impact of sites of regional, historic or environmental significance
- future urban land should be located in areas with adequate accessibility to regional services such as regional health and education facilities
- the efficiency of the regional road access routes should be safeguarded.

Commercial And Industrial Development

The REP principles for commercial and industrial development state that:

- there should be an adequate supply of zoned land available in suitable locations to permit industry to develop at a reasonable cost;
- industrial areas should be located where they can be adequately serviced with water supply, sewerage and transport systems, and are accessible from urban areas;
- commercial zonings should occur adjoining or adjacent to existing town centres and allow for light service industries and similar activities near central business areas.
Rural Residential Smallholdings Development

The REP policy on drafting a local environmental plan providing for rural residential smallholdings states that a strategy for rural residential development is required and will take account of:

a) the legitimate demands for such development;

b) accessibility to community facilities and services;

c) proximity to urban centres;

d) provision of infrastructure and services;

e) the risk of environmental hazards

f) land capability and agricultural land classification;

g) likely effects on waterways and water catchment areas;

h) the need to avoid sterilisation of valuable mineral deposits or other extractive materials; and

i) such other matters (if any) as may be advised by the Director of Planning.
Appendix F: Buckajo/coopers gully smallholdings zone – flora & fauna report

(Preliminary survey report prepared by Graham Roche, Natural Resources Officer, Bega Valley Shire Council in conjunction with consulting botanist Jackie Miles. 1999)

**MT PLEASANT 1(C) ZONE**

This area is located west of Bega, with development proposed to straddle Peak Hill Road and Mount Pleasant Road in a ring-road effect, leaving the core area on the eastern side undeveloped. This core area is a hill with relatively steep slopes which would present difficulties for housing development (on Portion 2602, DP 864971 and part of Portion 2041, DP 834699). The area was inspected briefly on 24 June 1998.

Much of the area consists of cleared farming land with exotic pasture and scattered large relict red gums (*Eucalyptus tereticornis*) and rough-barked apple (*Angophora floribunda*). There are two substantial patches of regrowth forest carrying a good range of species. One of these is located on the southern face of the steep hill which will not be developed, and the other on a steep south-facing slope south of the current end of Peak Hill Road, on Lot 1 DP 175559 and Lot 2557 DP 830863. There are also scattered patches of eucalypt and wattle regeneration with lower species diversity, occurring mostly in drainage lines or on very steep slopes where limited livestock access has allowed regeneration to occur.

The species found in these patches of regenerating forest conform well with Vegetation Type 20 (Bega Dry Grass Forest) described by Keith & Bedward (1998). This type is part of a complex of grassy ecosystems found in the Bega Valley and nearby valleys (though not Towamba Valley), usually on granitic soils, but sometimes on Ordovician meta-sediments. Diagnostic species include forest red gum, with white stringybark (*E. globoides*), rough-barked apple and black wattle (*Acacia mearnsii*) also frequent. Understorey can be predominantly grassy with a high diversity of grasses and herbs, or consist of a dense shrub stratum with blackthorn (*Bursaria lasiophylla*) and various dogwood species (*Cassina* and *Oxothamnus*). This vegetation type has been almost completely cleared for agriculture in the region, although some areas have subsequently been allowed to regenerate on more marginal land, such as steep south-facing slopes. Keith et al (1998) estimate only 12% of the original area of about 32,000 hectares remains. Virtually all of this would be regrowth forest on private land.

Much of this remaining forest is located on a band of Ordovician meta-sediments which runs from Brogo Pass in the north through to Black Range in the south. Steeper terrain on this geology has caused it to be more marginal for farming, with the result that more trees were left on it during original clearing and regeneration of forest has occurred in many areas. Stocking has probably also been lighter and native grasses are more likely to have persisted, rather than being replaced by improved pasture. The area with the greatest amount of forest is located in Brogo to the west of Upper Cobargo Road, and north of Cooper’s Gully Road, but the Mount Pleasant 1(c) zone is located towards the southern end of this belt, where regrowth forest is more fragmented.

Because of the degree of fragmentation of the forest in the southern section it would be of little value to vertebrate fauna other than birds, but it may function as a corridor allowing birds to move through this area. In terms of the total volume of bird movement through the area, particularly for migratory species such as honeyeaters which tend to stick closely to the coast with its resources of winter flowering banksias and eucalypts, the area would probably not be significant. However, it would permit...
a wider range of bird species to inhabit these small fragments of bush than could do so if they were completely isolated. It is certainly more desirable to maintain and consolidate the linkages through this area than to further fragment them. The Bega 1:25,000 topographic map understates the amount of vegetation to be found in this area. Aerial photographs from 1994 show considerably more. Vegetation patches have been roughly transposed from air photos to the subdivision map for the area to indicate the distribution of regrowth forest in the area.

**Recommendations**

1. It is possible that development for housing in this area will actually improve the wildlife corridor value for birds, by the planting of gardens, so long as no existing bush is removed. Since most of the regenerating bush is located in gullies and on steep slopes it is unlikely to be removed for housing, though there could be some damage associated with construction of tracks into more remote sections of blocks, or with the running of livestock on blocks. Conversely, if subdivision results in de-stocking of areas which currently run cattle, then considerable regeneration from existing relict trees can be expected. This is already occurring in some sections.

2. It is very desirable to keep development off the central hill on Portions 2602 and 2041. The south face of this hill has the best stand of bush on the site, with numerous mature eucalypts. The south face of the hill immediately to the north on Portion 54, DP 819182 also has some patches of bush on its south face and on the north side above and below the access track. Three lots are proposed for this block. Presumably the steepness of the southern slope will protect it from development, but care should be taken with siting of the lots not to encourage felling of the trees on the northern side. Already four have been felled for a powerline to a house site.

3. The next most extensive patch of bush is on the steep south facing slope below Peak Hill Road on Portion 1, DP 175559 and Portion 2557, DP 830863. Two lots and three lots respectively are proposed for these blocks. Given the steepness of the blocks and the narrowness of the flat ridgetop strip adjacent to the road, it seems scarcely feasible purely on practical grounds to get this many lots on these blocks. It would also be undesirable from a conservation perspective, since it would necessitate the purchasers destroying bush near the top of the slope to create sufficient flat ground to site a house. There are also two large old relict trees on the flat strip which would almost certainly have to be removed. A better alternative would be to permit subdivision of Portion 23, DP 787490, to the south of Coopers Gully Road. This block is cleared with scattered relict trees, and consists of a broad low ridge which would more easily accommodate 3-5 lots.

4. Large trees (>60cm DBH) should be protected on all lots, and on road verges. Many of these trees contain hollows which are important to provide nest sites for such common farmland birds as rosellas and kookaburras. Given the clearing which has drastically reduced the number of available old trees and disrupted recruitment of trees into this age class, every one of these trees is important as a potential nesting site.
Appendix G: Available environmental protection mechanisms

*Environmental Protection Zoning:* requires negotiation through State Government. Limitations of current zone options to be reviewed in the Rural Lands Review.

*Section 88B instrument:* involves a title covenant and is best applied in targeting a specific issue on a specific property.

*Development Control Plan:* Precinct-level planning specifications useful for identifying restrictions on normal land use within a zone.

*Voluntary Conservation Agreements (VCA):* initiatives available for promoting conservation in the Shire, through both Local and State Government agencies. These strategies seem to work best with farmers on large holdings.