

Planning Proposal

Jerberra Estate, Tomerong

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Shoalhaven City Council

August 2011



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Planning Proposal Maps

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Map 3.	Proposed building areas and bushfire planning information.
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Map 5.	Combined map showing building areas etc with conservation management areas.

Appendices

Copy of letter from former Department of the Environment, Water, Heritage & the Arts dated 15 March 2007.

Information Brochure – Jerberra Estate rezoning options, August 2010

Report to Council's Development Committee dated 17 January 2011 & resolution of 1 February 2011

Report to Council's Development Committee dated 7 June 2011 & resolution of 28 June 2011

Other supporting maps (contour map & slope analysis map)

Checklist for State Environmental Planning Policies and Ministerial Directions

2 Introduction

This planning proposal seeks to resolve and finalise the development potential of Jerberra Estate, a 'paper' subdivision located approximately 20 km south of Nowra and 1.5 km east of Tomerong. See Figure 1 - Location of the subject land.

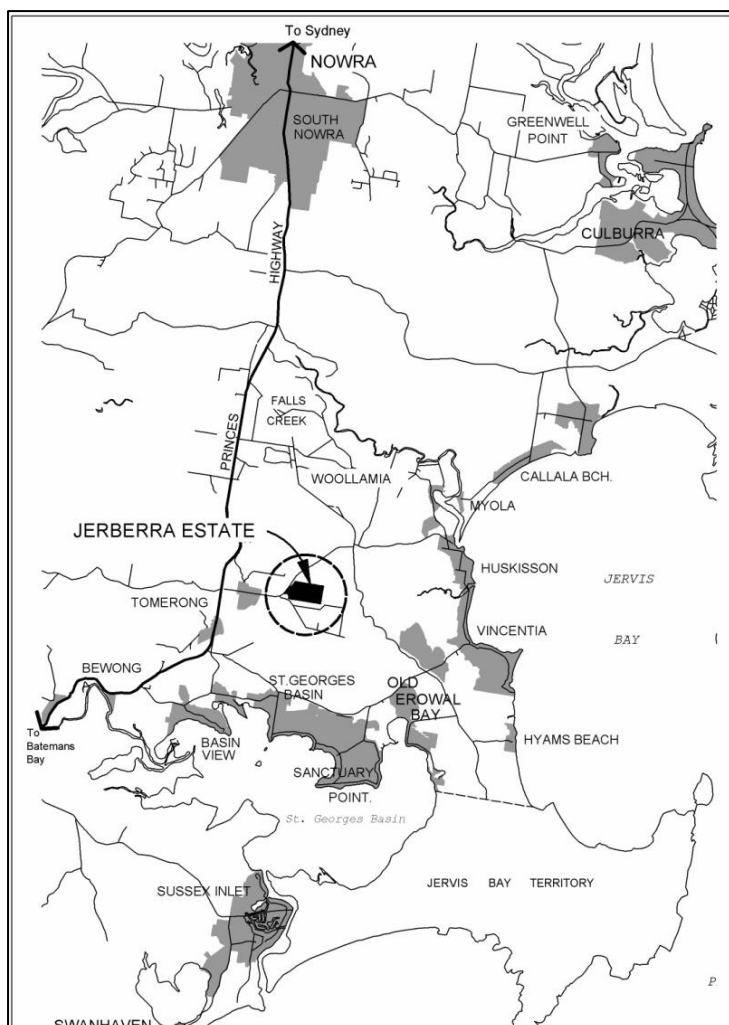


Figure 1 - Location of the subject land

The subject land is currently zoned part Rural 1(b) (Arterial and Main Road Protection) and part Rural 1(d) (General Rural) under Shoalhaven Local Environmental Plan 1985 (SLEP 1985). The Draft Shoalhaven Local Environmental Plan 2009 (Draft SLEP 2009) was also placed on exhibition on 18 July and will remain on exhibition until 14 October 2011. Under Draft SLEP 2009 the land is proposed to be zoned Rural Landscape (RU2) with a 40 ha minimum lot size being maintained which reflects the situation under SLEP 1985.

This planning proposal seeks to eventually amend SLEP 2009 to rezone the subject land to a mix of Environmental Living (E4), Environmental Management (E3) and Environmental Conservation (E2) in conjunction with a reduction in the minimum lot size requirement where housing is proposed to be allowed.

2.1 Subject Land

The subject land comprises the following lots:

- lots 1 to 11 in DP 1088096;
- lots 23 to 36, 39 to 49, & 52 to 166 in DP 11629; and
- lot 501 in DP 1122649 (on which an approved dwelling is located and where no further dwellings are proposed).

The subject land boundary is shown in Figure 2.



Figure 2 - Boundary of subject land.

2.2 Background

2.2.1 History of ‘paper subdivisions’ in the Jervis Bay area

The selection of Canberra as the nation’s capital and Jervis Bay as its future port in 1908 and the suggestion that a direct rail link would be provided between the two, triggered speculation that the Jervis Bay area would be extensively developed. A number of large scale residential and rural-residential subdivision plans were approved in the Jervis Bay area during the following years.

By the early 1920’s, many thousands of lots had been legally created, but remained undeveloped. Unlike current planning legislation, provision of infrastructure such as roads and drainage was not required prior to registration of subdivision plans. Any intentions that the owners may have had to actually develop these subdivisions were put on hold indefinitely when the Great Depression began in 1929.

“Paper subdivisions” as they have become known, were also created in other areas of NSW, but not in the same concentration as the Jervis Bay area.

2.2.2 Jerberra Estate subdivision registered in 1922

The Jerberra Estate subdivision was registered in 1922. Like other paper subdivisions in the Shoalhaven LGA, the land remained undeveloped when landuse zoning was introduced in 1964 in the form of Shoalhaven Interim Development Order No.1 (IDO No. 1). At that time the entire Estate was held in two holdings; one comprising 13 lots and one comprising 153 lots. Under IDO No.1 the land in the Estate was zoned “non-urban”, effectively precluding development of the individual lots due to their size, although each of the two holdings retained a dwelling entitlement.

IDO No. 1 was superseded when the Shoalhaven Local Environmental Plan (SLEP) was gazetted in 1985. Under the provisions of SLEP 1985, the land in Jerberra Estate is currently zoned part Rural 1(b) and part Rural 1(d). This effectively means Council is unable to approve dwellings on the individual lots (as they are less than 40 ha).

The then main owner began selling the individual lots in 1986 and the lots are now held in approximately 140 ownerships.

2.2.3 Planning studies commenced in 1992

In response to repeated requests by the landowners over a number of years, Council resolved in December 1992, to commence the rezoning investigation process but that the costs (of rezoning the land and providing the necessary infrastructure) would be borne by the landowners.

Planning studies undertaken in the mid 1990’s recommended that only limited development was appropriate. This did not resolve the owners’ expectations and was not accepted by the Council at the time.

In 1995 the State Government placed a moratorium on rezoning land in the Jervis Bay area pending completion of a settlement strategy for the area. The moratorium was lifted in 2003 when the Jervis Bay Settlement Strategy was completed by Council and endorsed by the State Government.

2.2.4 Unauthorised structures in Jerberra Estate

Many unauthorised structures were constructed on the subject land after the lots were sold in 1986. The existence of numerous unauthorised structures on the subject land adds further impetus to conclude the rezoning process in a timely manner.

A report to Council on 5 October 2004 following an audit of unauthorised structures indicated that 65 properties contained unauthorised structures, ranging from sheds to dwellings. Recommendations to commence legal action in respect of some of those structures in that report were not adopted by Council at the time due to uncertainty about the outcome of the rezoning investigations, but Council did resolve to take legal action against any further unauthorised development. Landowners were advised of this position in writing on a number of occasions in following years. Further unauthorised development occurred causing Council to later revisit the issue and instigate legal action.

Council subsequently wrote to all landowners in Jerberra Estate advising that Council will continue to take legal action against any unlawful structures or clearing in the Estate.

Council is currently pursuing legal action in respect of a number of other unauthorised structures including a number which were identified in the 2004 audit.

2.3 Evolution of planning proposal

Detailed studies undertaken since 2005 on a range of issues including flora and fauna, bushfire and Aboriginal archaeology, have identified high conservation value lands that need to be set aside for protection or is unsuitable for development. The remaining land in the Estate has some potential for housing. However not every lot can accommodate a house due to the need to protect sensitive environmental areas, manage bushfire risk, and provide services and infrastructure.

The current planning proposal aims to balance the land capability and environmental constraints with the owners' desire to be able to develop their land. The proposal is based on "Option A - constrained development" as outlined in a brochure that was prepared in consultation with the Department of Planning & Infrastructure (DP&I) (formerly the Department of Planning (DoP)) and the NSW Office of Environment & Heritage (OEH) (formerly Department of Environment, Climate Change & Water (DECCW)) in August 2010. A copy of the August 2010 brochure is provided in the Appendices.

On 1 February 2011, Council resolved to accept that an overall land pooling and re-subdivision option is not viable due to a lack of support from landowners and to proceed with finalising the details of a rezoning proposal based on Option A. A copy of the Council report and resolution of 1 February 2011 are provided in the Appendices.

A more detailed set of maps were then prepared in consultation with the Department of Planning & Infrastructure (DP&I) and the Office of Environment & Heritage (OEH). A report to Council's Development Committee on 7 June 2011 sought Council's support to prepare and submit a planning proposal for gateway determination. A copy of the report is provided in the Appendices. On 28 June 2011, Council resolved to:

- a) *Council finalise and submit a draft planning proposal to the Department of Planning & Infrastructure (DP&I) for 'gateway' determination, based on the details outlined in the report to the Development Committee (7 June 2011); and*
- b) *Council report the outcome of DP&I's 'gateway' determination to Council and also outline the remaining steps and indicative timeframes for completing the rezoning process.*
- c) *Council utilise the Local Member to assist this process...*

3 Part 1 - Objectives

- To resolve this long running matter and enable residential development to occur on the subject land with appropriate acknowledgement of environmental factors as determined from detailed constraints mapping.
- To protect high conservation value land and to facilitate rehabilitation of degraded areas that have an important ecological function.
- To facilitate amalgamation of lots where necessary in conjunction with appropriate development.
- To manage risks associated with bushfire, effluent disposal and stormwater.
- To avoid any potential downstream adverse impacts on the Moona Moona Creek catchment and associated ecosystems.

4 Part 2 – Explanation of Provisions

4.1 Maps

The following maps form part of this planning proposal and are provided at the end of this document.

- Map 1.** Proposed zones.
- Map 2.** Proposed minimum lot sizes.
- Map 3.** Proposed building areas and bushfire planning information. This map shows where buildings would be located, construction level under AS3959, and the extent of bushfire asset protection zones (APZ). A suggested amalgamation plan is also shown to maximise the number of dwellings in both the Environmental Management (E3) and Environmental Living (E4) zones.
- Map 4.** Proposed tree protection and conservation management areas.
- Map 5.** Combined map showing building areas and conservation management areas.

Note that a minor variation to the maps that were reported to Council in June 2011 is presented as “scenario B” in maps 2-5. This variation only affects part of the proposed E3 area (sector 9) and is discussed in more detail in section 4.6.

The maps would form part of the LEP amendment and/or be incorporated into the Development Control Plan (DCP) chapter for Jerberra Estate. Other supporting maps include a contour map and slope analysis map.

4.2 Proposed Zones & Minimum Lot Sizes

The following zones and minimum lot sizes are proposed:

4.2.1 E2 – Environmental conservation area

This area is broadly defined by a threatened vegetation community (swamp sclerophyll forest endangered ecological community (SSF EEC)) and/or the Biconvex Paperbark (*Melaleuca biconvexa*) which occur in broad drainage depressions. The EEC in the northeast of the Estate is also habitat for the endangered Eastern Bristlebird. The proposed E2 area incorporates a vegetative buffer, generally 50 m wide, around these constraints to minimise any potential edge effects.

4.2.2 E3 – Environmental management area

This area incorporates the gentle slopes and ridges in the eastern and central parts of the subject land, where the main concentrations of threatened species habitat trees were identified. The threatened species which utilise these trees tolerate a degree of disturbance. Hence, limited residential development is proposed, subject to amalgamation of lots to the extent necessary on the minimum lot size map. The proposed minimum lot size for this area ranges from 1.5 to 5 ha. A range of other planning controls will be used to achieve conservation outcomes in this area.

4.2.3 E4 – Environmental living area

This area is relatively free of threatened species habitat but given the relatively small size of some of the lots, onsite effluent disposal and/or bushfire issues limit the extent of development that is appropriate. Up to one dwelling per lot would be permissible, subject to a development application. No further subdivision would be allowed. The minimum lot size for this area would be at least 2,000 m² (where effluent disposal is the only constraint) except where bushfire APZ requirements adjacent to bushland will require the creation of larger lots. Land within the proposed E4 area on the northern side of Invermay Avenue will not be able to be developed until perimeter fire trails have been established as shown in Map 3.

It should be noted that the E4 zone is not currently included in draft SLEP 2009. This planning proposal will therefore require the E4 zone to be added to SLEP 2009.

4.3 Dwelling Yield

It is estimated that the proposal would yield approximately 82 dwellings based on the proposed minimum lots sizes. A breakdown of yield in each Sector and zone is provided in Table 1. A map key showing the breakdown of the subject land into nine sectors is provided in Figure 3.

Table 1 - Estimated dwelling yield for areas and zones

Sector No. (see Figure 3)	Sector Description	E4	E3	E2	total	# existing lots
1	between Jerberra Rd & Bowen St	10	-	-	10	15
2	north of Invermay Ave	9	-	-	9	15
3	between Jerberra Rd & Invermay Ave	21	-	-	21	21
4	north of Jerberra Rd, east of Greenslopes Ave		6	1	7	10
5	between Pine Forest Rd, Jerberra Rd, Glenn St & Inglewood Cres	4	-	-	4	25
6	west of Greenslopes Ave between Jerberra Rd & Inglewood Cres	13	2		15	19
7	south of Inglewood Cres, west of Greenslopes Ave	4	1	-	5	20
8	south of Inglewood Cres, east of Greenslopes Ave	-	4	-	4	9
9	east of Greenslopes Ave between Jerberra Rd & Inglewood Cres	-	7	-	7	18
TOTAL		61	20	1	82	152

Note: A variation to the minimum lot size in Sector 9 whereby the MLS is 1.5 ha instead of 2 ha would result in one additional dwelling (i.e. 8 dwellings instead of 7). This would take the total to 83. This option (Scenario B) is discussed further in section 4.6.

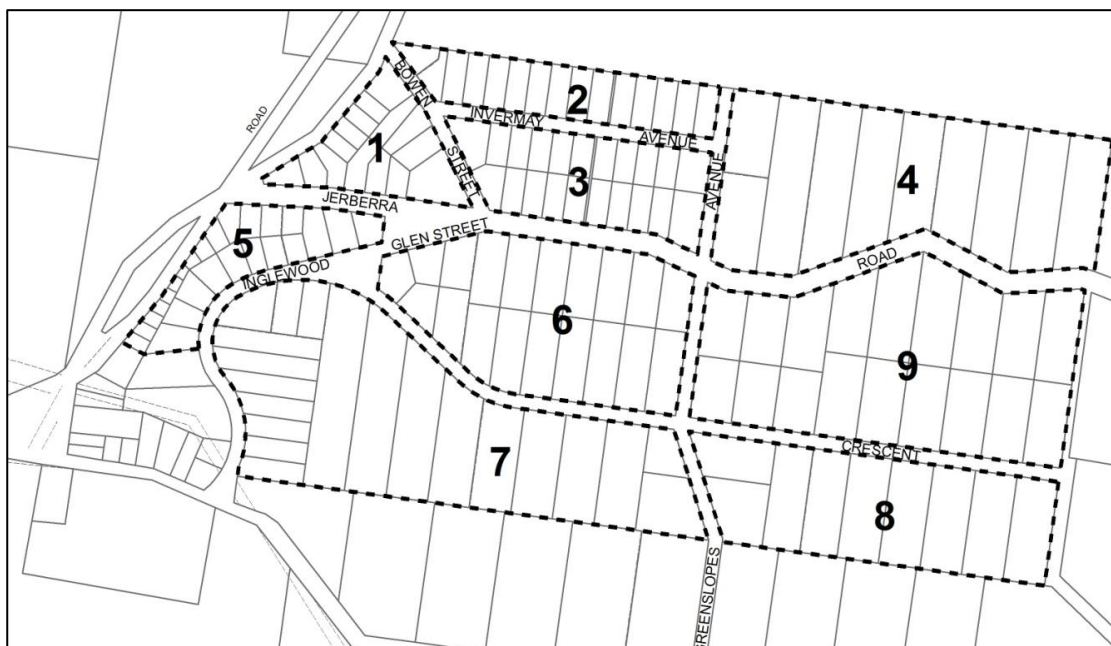


Figure 3 - Map key showing division of subject land into 9 sectors

4.4 Development Control Plan (DCP)

Council is currently preparing its city-wide development control plan (DCP) consistent with legislative requirements. A DCP chapter for Jerberra Estate will contain details on how the objectives outlined above would be further achieved. The DCP will include objectives, performance standards and acceptable solutions on the following issues:

- Conservation management. Management of the conservation management and tree protection areas which are identified on Map 4.
- Bushfire risk management. Structures to be located within building areas as shown on Map 3. Minimum construction levels for dwellings under AS3959 and corresponding asset protection zones will also be specified. Roads and perimeter fire trails (as shown on Map 3). Minimum design standards will be specified.
- Onsite effluent treatment and disposal. Minimum requirements will include treatment by aerated wastewater treatment system (AWTS) or equivalent, followed by subsurface disposal. Minimum areas for effluent disposal will be specified for different development options.
- Stormwater management. Conceptual stormwater treatment plan based on water sensitive urban design (WSUD) principles, taking into account the need to protect vegetation communities downslope and avoid any adverse impact on the Moona Moona Creek catchment.
- Lot amalgamation. An Amalgamation plan is shown on Map 3. The DCP will identify restrictions on the use of the land to formalise conservation management areas, asset protection zones and onsite effluent disposal areas. Indicative valuations of amalgamated lots and development costs will be provided to facilitate informed and equitable buying/selling of properties.

These aspects are discussed in more detail in later in this planning proposal.

4.5 Exclusions from State Environmental Planning Policy (Exempt and Complying Development Codes) 2008

The rezoning investigations have shown that the subject land contains significant areas of high conservation value land. Accordingly, exclusion of exempt and complying development provisions is sought for the tree protection and conservation management areas. This is considered necessary to ensure that environmental objectives for this land are not compromised by activities such as boundary fencing which could otherwise occur as either exempt or complying development. This could be achieved by adding these areas to the environmentally sensitive land map.

4.6 Alternative minimum lot size for Sector 9

4.6.1 Why an alternative minimum lot size has been prepared for Sector 9?

The minimum lot size provisions in the Standard Instrument will be integral to achieving a final development outcome and lot configuration that is more consistent with the environmental constraints, land capability and current legislative requirements. Other factors also need to be considered including:

- the existing lot sizes and land ownership;
- equity issues - the ability for the status of all lots within a given area to be resolved and avoid the possibility that some lots could be 'left out' of a solution;
- the ability and/or willingness of landowners to work collectively to achieve equitable lot amalgamation and re-subdivision outcomes. That is it may be difficult to achieve a development outcome if it relies on a number of landowners working collectively to pool and re-subdivide land (e.g. to convert five individually owned lots into two developable lots).

The amalgamation plan for Sector 9 (as shown on Maps 3 and 5) which is based on a minimum lot size of 2 ha (referred to herein as "scenario A") may be difficult to implement for issues outlined above.

An alternative minimum lot size (MLS) of 1.5 ha for Sector 9 (the area east of Greenslopes Ave, between Jerberra Rd and Inglewood Cres) is presented as "scenario B" in Maps 3b, 4b, 5b respectively. In respect of implementation, scenario B has some significant advantages over scenario A. This is examined in detail in the following section.

4.6.2 Comparison between scenarios A and B

Qualitative and quantitative comparisons of scenarios A and B are provided in Table 2 and Table 3 respectively.

Table 2 – Qualitative comparison of scenarios A (MLS = 2 ha) and B (MLS = 1.5 ha) for Sector 9

	Scenario A (min. lot size = 2 ha)	Scenario B (min. lot size = 1.5 ha)
Key Advantages	More land potentially available for conservation management.	Easier to implement (requires less coordination among landowners). Allows tenure of all lots to be resolved without requiring boundary adjustments.
Key Disadvantages	Achieves one less dwelling. Difficult to implement as it requires boundary adjustment subdivisions to resolve tenure of all lots. Requires higher level of landowner collaboration & reliance on implementation of suggested lot amalgamation plan.	If landowners act collectively, more lots could potentially be achieved subject to variation to suggested lot amalgamation plan and conservation management area.

Table 3 - Quantitative comparison of scenarios A and B

		Scenario A		Scenario B	
		Subtotal Sector 9	Total	Subtotal Sector 9	Total
# dwellings		7	82	8	83
Conservation management area size (ha)		9.399	41.260	9.016	40.878
Hollow bearing trees	conservation management area	48	159	44	155
	APZ/building envelope	6	33	15	36
	Total (subject land)		207		207
Yellow bellied glider feed trees	conservation management area	5	22	5	22
	APZ/building envelope	1	18	1	18
	Total (subject land)		46		46
Yellow bellied glider den trees	conservation management area	3	5	3	5
	APZ/building envelope	0	0	0	0
	Total (subject land)		5		5
Glossy Black cockatoo feed trees	conservation management area	38	92	36	90
	APZ/building envelope	9	26	11	28
	Total (subject land)		134		134
Gang-gang Cockatoo nest trees	conservation management area	0	0	0	0
	APZ/building envelope	0	0	0	0
	Total (subject land)	1	1	1	1

As shown in the above tables, scenario B would be easier to implement in terms of consolidating lots and would result in only limited additional loss of threatened species habitat provided adequate measures are incorporated to protect and conserve the tree protection and environmental conservation areas.

4.7 Building Envelopes

The location of buildings needs to be considered as part of the rezoning process for the following reasons:

- To manage bushfire risk. For those lots where bushfire asset protection zones (APZ) are unable to be provided within the boundaries of individual lots, buildings and APZs will need to be aligned so that the APZs are mutually beneficial and will be maintained in perpetuity.
- To achieve biodiversity outcomes. Dwellings should be located to minimise the need to remove threatened species habitat and to maximise habitat connectivity.
- To preserve visual character, local amenity and privacy.
- To minimise risks associated with onsite effluent disposal. Restricting the potential building areas on smaller lots will help ensure there is sufficient room available for onsite effluent disposal (relevant to lots in the E4 area).

The preferred location of buildings is shown on Maps 3 and 5. Dimensions are shown on the map. A front building line of 20 m has generally been applied to the lots in the E3 area, and in the E4 area a front building line of 15 m has generally been applied. A notable exception is on lots 112-126. Here it is proposed to cluster the dwellings toward the rear of the lots, so that APZs overlap and are mutually beneficial. Habitat adjacent to Jerberra Road and Inglewood Crescent would be retained and visual impacts would be minimised.

DP&I has indicated that the Standard LEP Instrument does not allow for building envelopes to be identified in the LEP but that the Department would investigate options and advise Council in due course.

4.8 Biodiversity Issues

4.8.1 Constraints

A flora and fauna assessment was completed by Bushfire & Environmental Services (BES) in 2006. A copy of the report is available on Council's website (Maps 5 to 8 have been removed having regard to Section 161 of the NSW National Parks & Wildlife Act 1974 & Clause 12, Schedule 1 of the Government Information (Public Access) Act, 2009) at:

<http://doc.shoalhaven.nsw.gov.au/Displaydoc.aspx?Record=D11/113399>

A total of 11 threatened species and one endangered ecological community were identified. BES's key findings and recommendations in respect of these are summarised below.

4.8.1.1 Swamp Sclerophyll Forest

Status: Endangered Ecological Community (EEC) - TSC Act

Distribution & Significance: Five vegetation communities that were identified of which one, Swamp Sclerophyll Forest is categorised as an endangered ecological community on the NSW Threatened Species Conservation Act (TSC Act). This EEC occurs in two broad drainage depressions located in the south western and north eastern parts of the subject land. BES recommended that a 50 metre vegetated buffer be provided to the two areas of the EEC.

Comments: No development is generally proposed within 50 metres of the EEC, except where a small reduction in the buffer width is proposed and/or where an existing informal road will be formalised. In these cases, appropriate measures will be applied to minimise potential impacts from stormwater runoff from roads and residential areas. It is also anticipated that the LEP/DCP would facilitate rehabilitation of any degraded or disturbed areas of the EEC. See also comments for Biconvex Paperbark.

4.8.1.2 Biconvex Paperbark (*Melaleuca biconvexa*)

Status: vulnerable on EPBC Act & TSC Act

Distribution & Significance: Biconvex Paperbark occurs in two locations:

1. An area of approximately 6.16 ha which is broadly aligned with the EEC in the south western part of the subject land; and
2. An area of approximately 0.25 ha in a smaller drainage depression in the northern part of the subject land.

According to the Flora and Fauna Assessment, both populations are viable, although clearing in and around them has reduced the size and distribution of each.

Comments: As for the EEC (refer to section 4.8.1.1), no development is generally proposed within 50 metres of the Biconvex Paperbark populations, except where a small reduction in the buffer width is proposed and/or where an existing informal road will be formally constructed. In these cases, appropriate measures will be applied to minimise potential impacts from stormwater runoff from roads and residential areas.

4.8.1.3 Eastern Bristlebird

Status: endangered on EPBC Act & TSC Act

Distribution & Significance: The Eastern Bristlebird was recorded in the north eastern occurrence of the EEC.

Comments: No development is proposed in the habitat where the Eastern Bristlebird was recorded. One dwelling is proposed on the combined area of lots 97-100 but the dwelling and APZ would be located outside the 50 m buffer that was recommended by BES.

4.8.1.4 Yellow-bellied Glider

Status: vulnerable on TSC Act

Distribution & Significance: The home range of a family group of Yellow-bellied Gliders appears to be centred within the subject land. Five den trees were observed in the eastern half of the subject land and 48 sap-feeding trees (Red Bloodwood) were recorded in the central, northern and south eastern areas. Other areas of the subject land are likely to be used for general foraging and provide connectivity to adjoining habitat.

Comments: The proposal would enable a large proportion of the key Yellow-bellied Glider habitat to be retained and the density of development across much of these areas would reflect the existing density of unauthorised development. Provisions would be included in the LEP and associated planning controls to conserve and enhance the value of bushland habitat outside of any required APZs.

4.8.1.5 Glossy Black-cockatoo

Status: vulnerable on TSC Act

Distribution & Significance: A total of 139 feed trees (Black She-oaks) were identified across much of the subject land, but were mainly concentrated in the south eastern corner. No nesting activity was recorded, although there are many potentially suitable hollow-bearing trees.

Comments: The proposal has been design to minimise the potential removal of the identified Glossy Black-cockatoo feed trees and hollow-bearing trees. A number of the feed trees are located within the identified APZs and some of these may need to be removed to meet the APZ specifications, but nearly 80% of the Glossy Black-cockatoo feed trees will be retained within the tree protection and conservation management area. Some of these may need to be removed to comply with APZ requirements. This would need to be evaluated on a case by case basis at development application stage for each dwelling.

4.8.1.6 Gang-gang Cockatoo

Status: vulnerable on TSC Act

Distribution & Significance: Up to three pairs of Gang-gang Cockatoos were observed during the flora and fauna surveys by BES, but only one nest tree was confirmed, in close proximity to an existing unauthorised structure and road, in the centre of the subject land. BES recommended that further disturbances within 50 metres of this tree be minimised and that a proportion of the general foraging habitat be retained, as well as retaining as many of the hollow-bearing trees as possible.

Comments: The Gang-gang Cockatoo nest tree is located within the road reserve and would not need to be removed to meet APZ specifications. The adjacent section of Jerberra Road is proposed to be constructed on the northern side (i.e. opposite the nest tree) of the road reserve to minimise disturbance to the nest tree.

4.8.1.7 Other Threatened Fauna

Large forest owls: The subject land contains potential habitat for the Powerful Owl, Masked Owl and Sooty Owl. No breeding activity for these species was recorded and only the Sooty Owl was thought to roost within the subject land during the survey period. BES's recommendations in respect of these species, was to retain as many hollow-bearing trees and habitat for prey species as possible. Around 90% of the hollow-bearing trees will be retained within the tree protection and conservation management areas, thus achieving BES's recommendations.

Microchiropteran bats: the Greater Broad-nosed Bat and the East Coast Freetail Bat were detected and are expected to forage throughout the subject land. No roosting sites were

located but several large hollow-bearing trees are potentially suitable. Refer to the comments in respect of hollow-bearing trees.

Square-tailed Kite & Grey-headed Flying-fox: Both of these species were recorded over the subject land by BES. Breeding activity was not detected and both species have extensive foraging areas. BES's recommendation for the retention of areas of forest and scattered trees would be achieved by the proposal.

4.8.2 Conservation Outcomes

The environment within the subject land has been substantially disturbed to varying degrees. Many lots have been extensively under-scrubbed or cleared and there are numerous unauthorised structures. Some existing substantial structures occur in close proximity to threatened species habitat. A number of these structures are intermittently or permanently occupied and it is evident that the threatened species which were identified by BES on the subject land tolerate a limited degree of disturbance (BES, 2007).

By allowing some development to occur in the least constrained areas subject to consolidation of lots, there is an opportunity to improve the overall value of the most environmentally sensitive areas. The extent to which this can be achieved in the long term will partly depend on the suite of planning controls introduced in conjunction with the amending LEP. Council recognises the need to ensure that appropriate measures are put in place to ensure that long term conservation outcomes can be achieved.

The NSW Office of Environment & Heritage (OEH) has provided the following advice in respect of achieving conservation outcomes:

The NSW Office of Environment and Heritage (OEH) is concerned to ensure that the conservation values of the Jerberra Estate are maintained. To this end, officers of OEH have worked constructively with officers of the Department of Planning & Infrastructure and Shoalhaven City Council over the last year to develop options for a Planning Proposal for the Jerberra Estate that provides for low-impact residential development in some parts of the Estate whilst ensuring biodiversity values are maintained in the more sensitive parts of the Estate.

OEH has reviewed a set of draft maps (titled: Development Committee 7 June 2011 – Item 2) and later amendments to these maps included as Maps 2, 3 and 5 in an email from Eric Hollinger to Mark Sheahan on 29 June 2011 [scenario B]. OEH supports the use of these draft maps as the basis for a Planning Proposal.

It is essential, in OEH's view, that the specific location of building envelopes, as shown in the maps above, are shown in the LEP. This is because, within the E2 and E3 zones, these building envelopes define the extent of the "Tree Protection and Conservation Management Area" (TP&CMA) as per Map 5.

It is OEH's view, shared by the Working Group, that the objective of management of the TP&CMA is to conserve biodiversity. The certainty that the TP&CMA will be managed primarily for biodiversity conservation will be an important factor in the assessment of the Planning Proposal, as the environmental assets (e.g., hollow-bearing, nest and feed trees) inside and outside the TP&CMA would likely be audited to inform this assessment. Indeed, Shoalhaven City Council has already provided a preliminary audit for this purpose.

To be assured that the TP&CMA will be managed for biodiversity conservation, OEH considers that the Planning Proposal should

- 1. Add the TP&CMA to Schedule 4 and Schedule 5 of the SEPP (Exempt and Complying Development Codes) 2008.*
- 2. Include in the Development Control Plan a chapter setting out a Conservation Management Plan for the TP&CMA, with management prescriptions similar to those shown below*
- 3. Ensure that a s88E covenant is applied to any lot or parcel that includes a part of the TP&CMA (but only to that part of the parcel that is the TP&CMA), either at the time lots are consolidated to a single parcel, or at the time that development consent is issued for a dwelling. The covenant should include management prescriptions similar to those below.*

Consider including a provision that ensures regrowth within the TP&CMA is identified as Protected Regrowth in accordance with s10(1)(b) of the Native Vegetation Act 2003

Ensure that for the Jerberra Estate as a whole (not just the TP&CMA), Clause 5.9(9) of the Standard Instrument is applied. This will ensure that the clearing permitted under Divisions 2 and 3 of Part 3 of the Native Vegetation Act 2003 will require consent.

Additionally, OEH would recommend that Shoalhaven City Council designate the TP&CMA as a Wildlife Protection Area in accordance with s30 of the Companion Animals Act 1998.

OEH looks forward to the opportunity for formally review the Planning Proposal after the gateway determination by the Department of Planning and Infrastructure.

Recommended management prescriptions for the Tree Preservation and Conservation Management Area (i.e., does not apply to building envelopes or APZ's)

- a. That the owner will not clear, or permit another person to clear, native vegetation in the subject area. This includes dead vegetation, including logs. ('clearing' and 'native vegetation' are defined in the NV Act)*
- b. That the Owner must not have any vegetation introduced into the subject land which is not indigenous vegetation, or is an environmental weed*
- c. That the Owner must take reasonable measures to ensure the subject land will remain free from any environmental weed or noxious weed*
- d. That the Owner must take reasonable measures to ensure the subject land will remain free from pest animals, including rabbits, foxes, pigs, goats, and cats.*
- e. That the Owner must not, and must not permit another person to have either placed or present or store in the subject land any of the following: fill, soil, rock, rubbish, ashes, garbage, waste, or other material that is foreign to the subject*

land and does not reflect the conditions of growth naturally encountered by the indigenous vegetation of the subject land

- f. The owner must not, or must not permit another person to have a fixture, improvement or structure placed, constructed or erected in the subject area.*
- g. Driveways and roads are not to be located within the TP&CMA*
- h. The owner must remove any fixture, improvement or structure from the subject area within a reasonable time of its presence being known to the Owner. (This should include existing structures that may have been placed, erected or constructed by the owner)*
- i. That the owner will agree to not erect any fencing within the subject lands, and, remove any fencing already on the subject lands. Fencing is to occur, instead, within or on the boundary of the Asset Protection Zone. Fencing along the APZ / TP&CMA boundary must not result in clearing of the TP&CMA.*
- j. Any fencing in the Asset Protection Zone shall not incorporate any barbed wire, electric fences, or other material that may cause damage to native fauna.*
- k. The owner must not, or must not permit another person to, graze any domestic stock on the subject land, including cattle, sheep, goats, horses or other animals.*
- l. That the Owner must not, or must not permit another person, to remove firewood from the subject land.*
- m. That the Owner must not permit any cats to enter the subject land.*

Notwithstanding the above:

- n. Indigenous vegetation may be cut down or trimmed so as to remove any risk to human safety, provided*
 - an application is made to SCC under Clause 5.9 of the LEP.*
 - the indigenous vegetation which is cut or trimmed must be left in the subject lands unless in SCC's opinion it constitutes a fire risk.*
- o. Indigenous vegetation may be cleared if:*
 - any clearing is authorised under the [State Emergency and Rescue Management Act 1989](#) in relation to an emergency within the meaning of that Act,*
 - any clearing is authorised under the [Rural Fires Act 1997](#) in relation to any emergency fire fighting act within the meaning of that Act,*
 - any clearing is carried out in accordance with a bush fire management plan under the [Rural Fires Act 1997](#),*

Monitoring & Reporting

The Owner is to provide Council with a report every two years demonstrating adherence to the conditions of the Agreement, with photographs of the agreed monitoring points.

The relevant agencies and landowners will be consulted in respect of the above advice as the proposal proceeds to determine the extent to which these matters may be implemented.

4.9 Bushfire Risk Management

The subject land is designated as Bushfire Prone land under the Rural Fires and Environmental Assessment Legislation Amendment Act 2002. Section 117 Direction 4.4 (Planning for Bushfire Protection) requires Council is to consult the NSW Rural Fire Service when preparing an amending LEP over, or in proximity to bushfire prone land.

Jerberra Estate is identified in the Bush Fire Risk Management Plan (BFRMP) prepared by the Shoalhaven Bush Fire Management Committee as being an “extreme” risk. The likelihood is classed as “likely” and the consequence is classed as “catastrophic”.

The current proposal has been prepared having regard to PBP 2006 and will make provision for bushfire asset protection zones and perimeter access to be provided where required. The proposal draws on relevant findings and recommendations of a Preliminary Bushfire Assessment completed by Bushfire & Environmental Services (BES) in August 2006, a copy of which is available online at:

<http://doc.shoalhaven.nsw.gov.au/Displaydoc.aspx?Record=D11/113378>

4.9.1 Bushfire asset protection zones (APZ's)

Minimum indicative APZ's have been determined using table A3.3 of PBP 2006 (FDI = 100) to ensure that any dwellings adjacent to surrounding bushfire prone vegetation and/or internal bushland would not be within the flame zone.

The vegetation and slope variables are:

- Vegetation classification: forest (dry & wet sclerophyll forest)
- Slope classification: 0-5° upslope and 0-5° downslope (refer to slope map)

Depending on the slope, minimum APZ's of between 20 metres or 25 metres would be required to ensure any dwellings are located outside of the flame zone. Exact APZ dimensions including inner and outer protection areas, access, water supply and construction standard would be determined at development application stage. (A development application for each dwelling would need to be accompanied by individual bushfire assessment.)

4.9.2 Dwelling construction levels and bushfire asset protection zones

Dwellings would need to be constructed to the appropriate standard under AS3959 (Construction of buildings in bushfire-prone areas) as determined using Appendix 3 in

Planning for Bush Fire Protection 2006 (PBP). The categories of bushfire attack, the relevant bushfire asset protection zone (APZ) dimension and applicable construction level under AS3959 are identified in Table 4.

Table 4 – Summary of bushfire attack and relevant APZ's determined in accordance with Appendix 3 in PBP and applicable construction level under AS3959

PBP category of bushfire attack	Radiant Heat (kW/m ²)	APZ width derived from Table A3.3 in PBP (m) ²		Description of predicted bushfire attack, levels of exposure, and implications for construction	Construction level AS3959 Bushfire Attack Level (BAL)
		Vegetation is level or upslope	Vegetation is >0 to 5 degrees downslope		
Low	NA (>100m ¹)	> 100m	> 100m	Minimal attack from radiant heat and flame although some attack by burning debris is possible. Insufficient threat to warrant specific construction requirements.	BAL-LOW
Medium	up to 12.5 kW/m ²	40-100	49-100	Significant attack from burning debris. Specific construction requirements for ember protection & accumulation of debris are warranted.	BAL-12.5
High	>12.5 to 19 kW/m ²	29-<40	36-<49	Significant attack from burning debris. Some building elements threatened by radiant heat. Specific construction requirements for ember protection & radiant heat are warranted.	BAL-19
Extreme	> 19 to 29 kW/m ²	20-<29	25-<36	Significant attack from burning debris and radiant heat. Specific construction requirements for ember protection & radiant heat are warranted. Some flame contact is possible.	BAL-29
Flame zone	>29 kW/m ²	<20	<25	Radiant heat levels and flame contact likely to significantly threaten building integrity and result in significant risk to residents.	No "deemed to satisfy" for construction in flame zone

Notes:

- ¹ PBP stipulates that no specific construction level is required if the source of bushfire attack is more than 100m from the dwelling. (100m applies to forests, woodlands & tall heaths. Smaller distances apply to other vegetation classes.)
- ² Slope analysis mapping shows that the slope of the land does not exceed 5 degrees.

The ability to minimise the development footprint associated with each dwelling and thus the area that is able to be retained for conservation, is closely linked to dwelling construction levels under AS3959. Indicative construction levels are shown on Map 3. Within the E3 area, the proposed minimum construction level is generally BAL-29 except where APZ's overlap with those of adjoining proposed building areas, thus allowing a lesser construction level. The cumulative impact of downgrading the construction levels as

shown on Map 3 would be a significant reduction in the area available for conservation management.

4.9.3 Access

With exception of the four (4) proposed dwellings in Sector 7 (western end of Inglewood Cres) alternate access/egress will be available via Jerberra Road off Pine Forest Road, and via Inglewood Crescent (eastern end) off Evelyn Road.

The four (4) proposed dwellings in Sector 7 would be accessed via the western section of Inglewood Cres. Alternate access would not be provided but each of the dwellings would be located less than 200 metres from Evelyn Rd. The road reserve between the western and eastern sections of Inglewood Cres traverses a broad drainage depression inhabited by the protected Biconvex Paperbark and the Swamp Sclerophyll Forest EEC. It is not proposed to construct this section of Inglewood Cres.

A right of way would need to be created over lot 166 to provide access for the dwelling on lot 156. Each development application would need to demonstrate that access will be provided for fire fighting vehicles to the rear of the dwelling. Note that the APZs for the four dwellings Sector 7 would be contiguous and mutually beneficial. This would also provide improved bushfire protection for rural residential development on the adjoining land to the south. Easements would be established to ensure the APZ is maintained in perpetuity.

Perimeter fire trails are proposed along part of the northern boundary of the proposed E4 area in Sector 2 (north of Invermay Ave). Fire trails are proposed instead of roads to reduce the width of land required and the cost. The fire trails would conform to the requirements of PBP 2006, including the provision of passing bays or reversing bays every 200 metres.

It is proposed at this stage that the fire trails would be vested in Council. Each fire trail would be gated and locked, reducing the likelihood that residents would seek to use the fire trails for emergency access. If possible, a clause should be included in the amending LEP and/or DCP to ensure that the road and perimeter fire trail network is operational before any relevant land can be developed. Landowners would potentially be required to enter into a planning agreement with Council to recoup the cost of creating and maintaining the fire trails.

Provision of access for fire fighting vehicles to the rear of dwellings in the E3 area would need to be demonstrated by each development application and development approvals conditioned accordingly. Maintenance would be the responsibility of individual property owners.

4.9.4 Provisions to be incorporated into planning controls

The LEP and DCP will reinforce bushfire planning principles in Planning for Bush Fire Protection (PBP). Specific provisions to be included as appropriate will include but not be limited to:

- level of construction for dwellings under AS3959 as shown on Map 3;
- establishment of APZ's as shown on Map 3;
- construction of perimeter fire trails before certain lots can be developed; and

- where provision of access for fire fighting vehicles to the rear of dwellings is a requirement for individual landowners.

Each property owner within the Environmental Management area would be responsible for retaining native bushland on that part of their property outside of the APZ.

4.10 Effluent Disposal

Shoalhaven Water has indicated that reticulated sewage is unlikely to be extended to Tomerong in the foreseeable future given current funding arrangements, in which case, provision of reticulated sewerage will not be an option for many years.

As can be seen in Figure 4 below, many of the Jerberra Estate properties are relatively small in terms of onsite effluent disposal. For example, there are 45 properties that are less than 0.2 ha and 81 properties that are less than 0.3 ha. A number of the smallest lots are within the proposed E2 area (where no development is proposed). However, many are in the proposed E4 area.

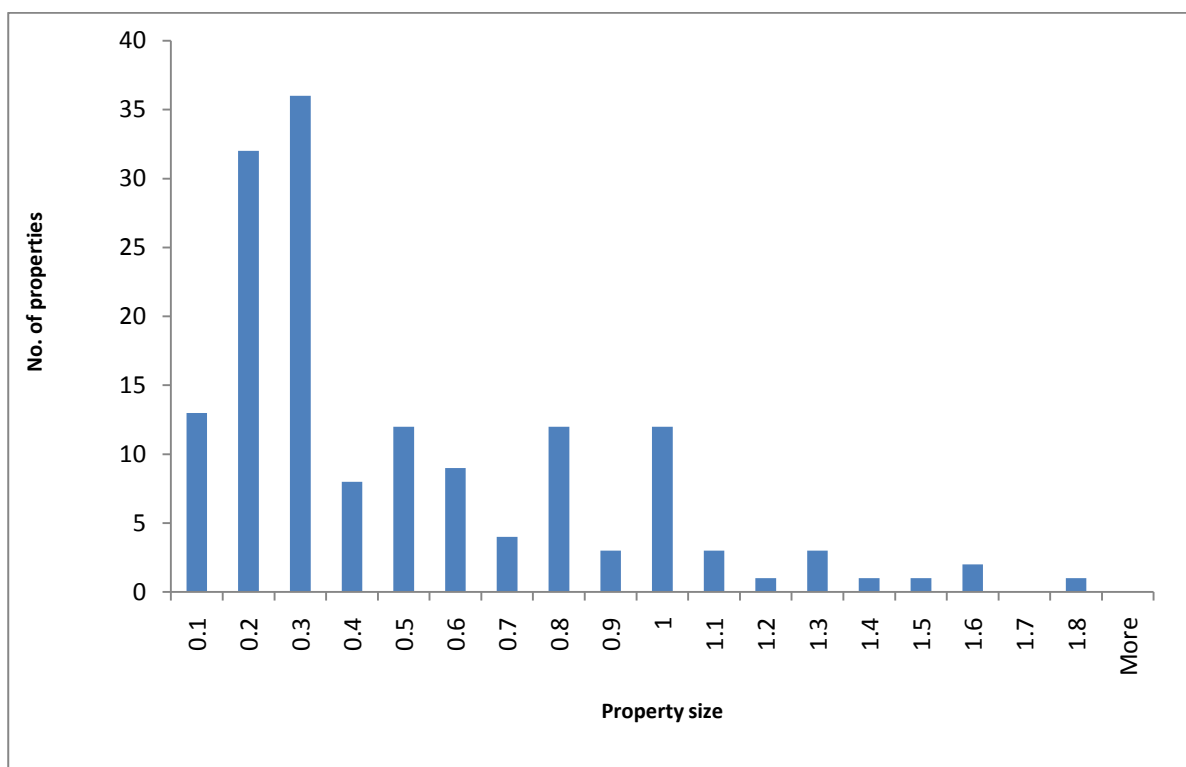


Figure 4 – Histogram of Jerberra Estate property sizes

Two consultancy reports have been completed and both concluded that a communal effluent system (CES) would be preferred from a technical perspective over individual onsite disposal (see below). Shoalhaven Water previously indicated that a CES approach would not be supported. In any case, a CES could probably only be implemented as part of a Community Title scheme which is highly unlikely given feedback from the landowners in 2010 and Council's resolution on 1 February 2011 that such an approach is not viable given the lack of landowner support.

4.10.1 Previous effluent disposal assessments

4.10.1.1 Assessment by Coffey Geosciences (2000)

This study concluded that:

- a. *There are only two feasible options for waste-water disposal. Either individual aerated water treatment system (AWTS) or a common effluent system (CES) for the estate;*
- b. *The minimum lot size for an individual AWTS for the estate is about 2,500 m² of which about 1500 m² is the minimum area required for irrigation.*

4.10.1.2 Desktop review by Martens & Associates (2006)

Martens' report identified potential onsite effluent disposal options for smaller/more constrained lots if individual systems are to be used. The report recommended:

1. *A decision will need to be made in relation to whether individual or a communal CES system is to be pursued.*
 - a. *In the case of the individual systems, the cost to land owners will be considerable on the smaller allotments where space restrictions require more elaborate and complex on-site sewage management scheme and non-potable re-use will be required. These systems may cost the home owner \$20,000 - \$25,000 once fully constructed. In the case of the larger allotments where more land is available, a standard AWTS and irrigation system may suffice, costing approximately \$8000 per dwelling.*
 - b. *[Relates to CES option].*
2. *A more detailed and precise land capability map should be produced.* [Comment: This has now been done.]
3. *More detailed water / nutrient balance assessment should be developed ... for a range of dwelling sizes (e.g. 2 – 5 bedrooms).* [Comment: This has now been done and is discussed below.]
4. *Following the above, the minimum allotment size recommended by Coffey's should be revisited in the light of the various on-site treatment alternatives. Various minimum performance standards can then be determined for each of the existing allotments.*

4.10.2 Assessment of effluent disposal areas and minimum lot size

An assessment of minimum lot size has been undertaken, based on treatment by aerated wastewater treatment system (AWTS) or equivalent. This assessment involved the following:

1. Water and nutrient balance calculations to determine the effluent application area for a range of dwelling sizes (i.e. no. of bedrooms) using methodologies set out in the relevant State guidelines (the 'Silver Book') and Australian standard (AS1547) and published data.
2. Determine the area available for effluent disposal for a nine 'case study' lots in the subject land allowing for a typical building envelope. A site plan was drawn for each lot, showing a building envelope (15 m x 20 m) set back at least 10 m from the front boundary and with driveway access. Standard setbacks were applied to the

property boundaries, the building envelope and the driveway. For each lot, two scenarios were calculated:

- a) Area available for above-ground spray irrigation; and
 - b) Area available for sub-surface drip irrigation.
3. Determine the relationship between lot size and the area available for effluent disposal using the results from step 2.

Subsurface irrigation allows a larger proportion of the lot to be utilised for disposal and is the only option for smaller lots. The results of the nutrient and water balance calculations (i.e. from step 2 above) are summarised in Table 5.

Table 5 - Minimum effluent disposal area (m²) for different development scenarios based on treatment by AWTs and tank water supply*

Number of bedrooms	Minimum effluent disposal area (m ²)**	
	Standard water reduction	Full water reduction
2	389	270
3	583	406
4	777	541
5	972	676

* larger areas would be required for reticulated water supply

** calculations based on soil and site specific characteristics for subject land

It was indicated that a 4-bedroom dwelling with standard water reduction fixtures should be used as the basis for determining an appropriate minimum lot size for the subject land. The relationship between lot size and the area available for effluent disposal (results from step 3) is shown in Figure 5.

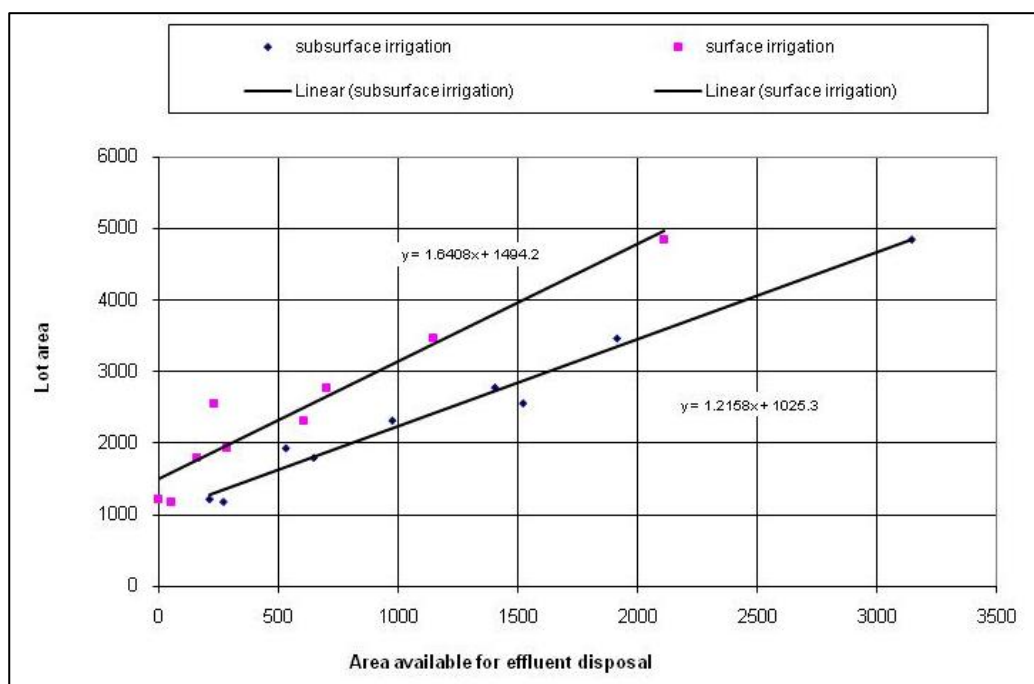


Figure 5 - Comparison of lot size for Jerberra sample lots and area available for effluent disposal (all units in m²)

Using the equation provided in Figure 5 for sub-surface irrigation, a 2,000 m² lot has sufficient area to safely treat effluent from a 4-bedroom dwelling with standard water reduction fixtures. This analysis provides the basis for the proposed minimum lot size of 2,000 m² in most of the E4 area. The Standard LEP Instrument allows 10% variation, thus dwellings could potentially be approved on lots that are 1,800 m² or more, thus allowing a level of flexibility to accommodate innovation, whilst limiting health and environmental risks associated with failing onsite effluent disposal systems.

4.10.3 Provisions to be incorporated into planning controls

The DCP will include performance standards and acceptable solutions in respect of effluent disposal that will be in addition to, and above the generic (city-wide) DCP requirements. These site specific requirements will include, but not be limited to:

- onsite effluent treatment by aerated wastewater treatment systems (AWTS) or equivalent;
- minimum effluent disposal areas shown in Table 5 to be provided;
- disposal of treated effluent via subsurface irrigation to minimise the risk of net pollution export and associated health and environmental risks; and
- each development application will need to be accompanied by an onsite wastewater management report prepared by an appropriately qualified professional.

Effluent disposal areas required for various development scenarios (i.e. number of dwellings and level of water reduction) would be set out as a guide for landowners, consultants and assessment staff.

4.11 Stormwater Management

The subject land drains to Moona Moona Creek via Duck Creek. Moona Moona Creek flows into Jervis Bay between the townships of Huskisson and Vincentia. The lower reaches of Moona Moona Creek support an extensive wetland system, which is located approximately two (2) km east of the subject land. The wetland is protected under State Environmental Planning Policy No. 14 (SEPP 14 wetland No. 325). Moona Moona Creek and the waters of Jervis Bay also form part of the Jervis Bay Marine Park.

The subject land makes up less than 3% of the 28.05 km² Moona Moona Creek catchment and is currently subject to a range of disturbances including:

- Numerous unauthorised structures, many of which are believed to have sub-standard onsite effluent disposal systems.
- Over the years, varying degrees of vegetation clearing has occurred on a number of the properties.
- Informal vehicle tracks, many of which are severely eroded, exposing the erodible subsoils.

The proposal will need to demonstrate no net impact on the hydrology, water quality or ecology of the SEPP 14 wetland, Moona Moona Creek and Jervis Bay. To this end, a conceptual stormwater treatment train will be developed using MUSIC V.4. This work will be informed by relevant data specific to the catchment including a UOW Honours project titled “Impacts of land use on pollution loads of the Moona Moona Catchment, Jervis Bay” (Baxter, 2008). An electronic copy of the thesis is available on request.

The proposal will enable a number of current potential sources of pollution to be better managed including:

- Construction of the road network to replace unstable and erodible surfaces with stable erosion resistant surfaces, including the provision of appropriate stormwater drainage and erosion control measures.
- The removal of unauthorised structures from inappropriate/ environmentally sensitive land and rehabilitation of degraded areas.
- Upgrading of substandard effluent disposal systems.

4.11.1 Provisions to be incorporated into planning controls

The planning proposal will include the following objectives:

- to minimise the risk of development adversely effecting stormwater during and following the construction phase;
- to avoid any potential downstream adverse impacts on the Moona Moona Creek catchment and associated ecosystems.

Specific provisions:

- Design of road and stormwater management infrastructure will adhere to water sensitive urban design principle.
- Development applications will need to be accompanied by appropriate plans to show how stormwater pollution will be prevented during the construction phase. Where less than 2,500 m² of disturbance is proposed, applications will need to be accompanied by an erosion and sediment control plan (ESCP). Where more than 2,500 m² is proposed, applications will need to be accompanied by a soil and water management plan (SWMP) as per the 'Blue Book' (Landcom, 2004).
- Rehabilitation and revegetation of disturbed groundcover areas using non-invasive species.

5 Part 3 - Justification

5.1 Need for the planning proposal (Section A)

5.1.1 Is the planning proposal a result of any strategic study or report?

This planning proposal reflects and is the outcome of a specific action in the Jervis Bay Settlement Strategy (JBSS 2003) to investigate rezoning Jerberra Estate – refer to section 5.2.1. As the JBSS is an endorsed strategy, the planning proposal is also consistent with the South Coast Regional Strategy (SCRS 2007) – refer to section 5.2.3.

The following planning studies on the subject land have been completed:

Pre 2003:

- Pacific Pastures Environmental Study (ERM Mitchell McCotter, 1994)
- Flora & Fauna Assessment (AES, 1996)
- Effluent Disposal Study (Coffey Geosciences, 2000)

Post 2003:

- Aboriginal Archaeological Assessment (NSW Archaeology, 2005)
- Preliminary Bushfire Assessment (BES, 2006)
- Desktop review of onsite effluent disposal (Martens & Associates, 2006) and follow-up assessments which have been undertaken
- Flora and Fauna Assessment (BES, 2007)

The proposal takes into account constraints and opportunities identified in the above studies, in particular the post 2003 studies. These are discussed in more detail in this proposal.

5.1.2 Is the planning proposal the best means of achieving the objectives or intended outcomes, or is there a better way?

The current zoning needs to be amended to resolve the subject land's development potential, achieve environmental outcomes and allow unauthorized structures to be either regularised or removed. To date, various environmental and land capability studies have been undertaken and significant progress has been made on reaching agreement with the relevant Government agencies on appropriate development and environmental outcomes.

5.1.3 Is there a net community benefit?

A Net Community Benefit Test has not been undertaken for this draft plan and is not considered appropriate as this planning proposal is being prepared to ensure the continuation of an extremely drawn-out and complicated rezoning process that originally commenced in the 1992.

Significant progress has been made in the past 12-18 months and there is a clear need and expectation among the community and the landowners that the process be allowed to progress to a conclusion to resolve this matter.

5.2 Relationship to strategic planning framework (Section B)

5.2.1 Jervis Bay Settlement Strategy 2003

The Jervis Bay Settlement Strategy 2003 (JBSS) identifies the Jerberra Estate as an opportunity for rural residential settlement, and states that:

"The development potential for rural residential development will be investigated through a review of lot sizes and configuration in order to accommodate on site effluent management and meet the guiding principles and policy actions of this Strategy."

Comment: Effluent disposal is discussed in section 4.10.

5.2.2 Jervis Bay Regional Environmental Plan 1996

The subject land is affected by the Jervis Bay Regional Plan gazetted by the NSW Government in 1997. As part of improvements to simplify the State's planning system, as of 1 July 2009, regional environmental plans (REP's) are no longer part of the hierarchy of environmental planning instruments in NSW. All existing REP's are now deemed State environmental planning policies (SEPP's) and are being reviewed as part of the NSW planning system reforms.

The subject land forms part of the Moona Moona Creek catchment, a waterbody to which clause 11 – catchment protection of JBREP applies. Moona Moona Creek is mapped as *'a two use waterbody, protection of aquatic ecosystems; and primary contact recreation'*.

Clause 11 states that a proposal must:

- (a) for the water quality in any waterbody it may affect, either:*
 - sustain uses identified on map 2 and as defined by the Australian National Water Quality Guidelines for Fresh and Marine Water 1992, or*
 - demonstrate how the water quality will be maintained or improved, if the water quality in those waterbodies does not at that time sustain the uses identified on map 2, and*
- (b) outline a water quality management strategy for surface water to demonstrate how paragraph will be achieved, and*
- (c) rehabilitate and restore any degraded areas along a waterbody on the site, and*
- (d) provide sewerage for all new development (unless the development is within an existing unsewered area). If alternate systems of sewage disposal have been approved by health and environment protection authorities, they may be provided, and*
- (e) protect ecosystems and natural habitats, including waterbodies, from degradation.*

Comment: Refer to discussion of stormwater management in section 4.11.

5.2.3 South Coast Regional Strategy 2006

Relevant actions in the South Coast Regional Strategy (SCRS) include:

Natural environment:

- New urban development is to be prohibited by local environmental plans on land assessed as being of high conservation value; and appropriate planning controls are to be incorporated into LEPs to protect biodiversity values on land of lower conservation value.

- Future development in the catchments of SEPP 14 wetlands will need to demonstrate no net impact on the hydrology, water quality or ecology of these wetlands.
- Strategic assessments of riparian corridors to be applied through appropriate zoning and management through a develop control plan.

Comments:

Council has been working closely with OEH and DP&I to ensure high value conservation land is retained through appropriate zoning and appropriate planning controls. This is central to the planning proposal – refer to section 4.8.

Riparian vegetation associated with the broad drainage depressions will be protected by being zoned E2 and the 40 ha minimum lot size will be retained to ensure that dwellings are unable to be approved in these areas due to their sensitivity.

Housing and settlement: Only urban areas identified in endorsed settlement strategies will be supported.

Comment: As previously indicated, Jerberra Estate is identified in the Jervis Bay Settlement Strategy, which is an endorsed strategy.

5.2.4 Consistency with Council's Community Strategic Plan

The proposal is consistent with Council's Community Strategic Plan. The relevant objective and strategy in Council's Community Strategic Plan are:

- | | |
|----------------|---|
| Objective 2.2 | Population and urban settlement growth that is ecologically sustainable, carefully planned and managed to meet the needs of the community. |
| Strategy 2.2.1 | Develop and implement land use zones and related strategies for future growth of the City, based on principles of connectivity, ecological sustainability, flexibility and accessibility. |

The relevant activity in Council's Delivery Program is:

- | | |
|-------------------|--|
| Activity 2.2.1.11 | Resolve the future of Small Lot Rural Subdivisions located in the Jervis Bay and St Georges Basin area are consistent with the Jervis Bay Settlement Strategy. |
|-------------------|--|

The proposal is also consistent with the Jervis Bay Settlement Strategy which was endorsed by the State Government in 2003. This Strategy is also reflected in the State Government's South Coast regional Strategy.

5.2.5 Consistency with Applicable State Environmental Planning Policies

The Planning Proposal is consistent with State Environmental Planning Policies. A checklist is provided in the Appendices.

5.2.6 Consistency with Applicable Ministerial Directions

The Planning Proposal is not inconsistent with the relevant Ministerial directions, namely:
1.2 Rural zones

2.1 Environment Protection Zones
4.4 Planning for Bushfire Protection

Relevant information in relation to the above is provided in section 4. A checklist is provided in the Appendices.

5.3 Environmental, Social & Economic Impact (Section C)

5.3.1 Is there any likelihood that critical habitat or threatened species, populations or ecological communities, or habitats that will be adversely affected as a result of the proposal?

Environmental studies into the potential impact of residential development on the existing environment have been undertaken. Proposed zone boundaries have been delineated through consultation with OEH to minimise any potential impacts on threatened biodiversity. Refer details provided in section 4.

5.3.2 Are there any other likely environmental effects as a result of the Planning Proposal and how are they proposed to be managed?

The subject land has been disturbed to varying degrees. In some cases bushland will need to be cleared to accommodate residential development, infrastructure and provision of bushfire asset protection zones. Broader environmental impacts, including water quality and catchment planning and amelioration of any such impacts will be considered as the planning process continues. Refer to comments in sections 4.10 and 4.11.

5.3.3 How has the planning proposal adequately addressed any social and economic effects?

Resolution of the zoning and development potential of Jerberra Estate would provide significant social and economic benefits including, but not limited to, the resolution of the status of numerous unauthorised structures. It will also provide certainty for the landowners and the broader community on the future use of land in the Estate. It will also implement an agreed strategy of the State Government and Council.

5.4 State & Commonwealth Interests (Section D)

5.4.1 Adequacy of Infrastructure

The subject land is located approximately 1.5 km east of Tomerong village. The land can be accessed via Jerberra Road off Pine Forest Road, or via Inglewood Crescent off Evelyn Road. Tomerong village is serviced by a general store, primary school, and a community hall. Other services and businesses are located at other centres such as Huskisson, Vincentia, St Georges Basin and Nowra.

Sewerage servicing of Tomerong Village is not planned for within the next 20 year period. Should the NSW Government through the Country Towns Water Supply and Sewerage Program (CTWSS) commit subsidy funding for Tomerong Village at an earlier time frame, then appropriate assessment, consideration and planning will be given by Council at that time.

Provision of electricity is discussed in section 7.1.3.

5.4.2 Commonwealth advice in respect of the EPBC Act

Correspondence from the former Department of the Environment & Water Resources dated 15 March 2007, indicated that Council should formally refer the proposed rezoning and associated public infrastructure works to the Department under the Environment Protection & Biodiversity Conservation Act (EPBC Act). The letter indicated that further flora and fauna investigations would not be required in respect of the EPBC Act. A copy of the letter is provided in the Appendices.

The Department's letter also indicated that:

- Avoiding impacts on the *Melaleuca biconvexa* (Biconvex Paperbark) and the Eastern Bristlebird are the primary concerns under the EPBC Act.
- Retention of a 50m buffer to the identified Eastern Bristlebird habitat in the north east of the Estate may help to ensure viability of the habitat and the habitat corridor utilised by this species.
- Any proposal to allow development on lots 97-100 should include measures such as dog-proof fencing to minimise impacts.
- A formal assessment under the EPBC Act may not be required if Council can demonstrate that the proposed conservation and buffer areas will be offered effective legislative protection.

It is intended to submit a formal referral to the Department under the EPBC Act if/when the planning proposal is given gateway approval.

6 Part 4 - Community Consultation

6.1 Landowner Consultation

A significant level of consultation has been undertaken with landowners throughout the Jerberra Estate rezoning investigations. In relation to the current proposal, an information drop-in day was held on 4 September 2010 and a landowner survey was undertaken to ascertain if there was sufficient support from landowners to warrant investigation into a land pooling/resubdivision outcome. The outcome of this consultation was reported to Council in January 2011. In response, Council resolved to accept that land pooling and resubdivision is not feasible due to a lack of support from landowners. A copy of the Council report and resolution is provided in the Appendices.

Landowners have been consulted throughout the rezoning investigations to date via direct correspondence. For example, correspondence is sent whenever the rezoning investigations are reported to Council. This will continue to occur. A dedicated project web page has also been established on Council's website and this is updated periodically. The web page can be accessed at:

<http://shoalhaven.nsw.gov.au/PlanningampBuilding/Strategicplanning/PaperSubdivisions/JerberraEstate.aspx>

As has been the case with the Jerberra Estate rezoning investigations for a number of years, relevant staff are available for landowners to discuss the proposal (during business hours).

6.2 Public Exhibition

Given the complexities of this matter and the number of landowners involved, the planning proposal would be publicly exhibited for a minimum of 28 days. Landowners would be notified in writing. The exhibition would be advertised in the South Coast Register and on Council's website. The notification will be in accordance with DP&I's community consultation requirements (refer to "A guide to preparing local environmental plans") and Council's public consultation policy. At least one information drop-in session will be held for landowners.

7 Additional Information

The following additional information on infrastructure, funding/costs and options to advance future development of the subject land is provided as contextual background. The final details regarding the various issues will be considered/resolved as the proposal proceeds.

7.1 Development Costs

7.1.1 Roads & Fire Trails

Indicative cost estimates have been prepared for the roads and fire trails to be constructed based on typical costs for construction elsewhere. A contingency has been included in these amounts to cover provision of basic road drainage costs, such as table drains.

These are a guide only – costs will be calculated when a design has been prepared.

The western end of Inglewood Cres, which would be accessed off Parnell Rd, would essentially be a stand-alone development from the remainder of Jerberra Estate and has therefore been costed separately to the remainder of the Estate.

Table 6 - Approximate road construction costs excluding western section of Inglewood Cres

	Estimated cost	Cost per dwelling**
Road	\$2,055,000	\$26,688
Fire Trail	\$232,500	\$3,019
Total	\$2,287,500	\$29,708

** based on 77 dwellings (estimate)

Table 7 – Approximate road construction costs - Inglewood Crescent west (accessed from Parnell Rd)

	Estimated cost	Cost per dwelling*
Road	\$93,750	\$23,438

* based on 4 dwellings

7.1.2 Road drainage & stormwater management

As indicated above, the cost estimates for road construction include an allowance for basic road drainage (table drains and mitre drains). Further work involving pipes, headwalls and stormwater management have not been estimated at this stage. Preliminary cost estimates will be prepared at a later stage, pending progression of the planning proposal.

7.1.3 Electricity

In 2004, Integral Energy advised Council that:

1. *Based on standard parameters used for the calculation of load for single dwellings on large lots with no gas supply, it is estimated that the electrical load within the estate could be in the order of 1.2 MVA.*
2. *The nearest zone substation, (major supply point) is at Huskisson approximately 7 kilometres from this site.*

3. *The electrical capacity of Huskisson Zone Substation is 20MVA firm. The demand forecast for the zone substation anticipates that the firm rating will be exceeded in 2005.*
4. *There is an existing 11kV distribution network which skirts the subject area.*
5. *To allow the connection of this additional load there would need to be a reconfiguration of the 11kV network. Associated with this reconfiguration there is a requirement that some existing overhead conductor would need to be augmented to a larger conductor to allow the system to carry the additional load.*
6. *An extension of the 11kV network to service the proposed new lots within the estate would be required. It is expected that this extension could be completed by using an overhead open wire network with appropriately located distribution transformers to supply the load.*
7. *Should your Council decide to allow this subdivision to proceed it will be necessary for the developer to contact Integral Energy to arrange for design and construction of the assets required to reticulate electricity to the estate. The cost of augmentation and extension of the electricity system would be the responsibility of the developer.*
8. *Unfortunately a reasonable estimate of the costs involved is not possible without a preliminary electrical design for the estate.*

Updated advice will be sought from Origin Energy.

7.2 Cost recoupment options

Council has a longstanding position that if the land is rezoned, the costs associated with the rezoning process and the provision of services and infrastructure should be borne by the benefiting landowners. This 'user-pays' principal was also recommended by the NSW Commission of Inquiry into the Heritage Estates in 1999.

Preferably, landowners or a developer acting on their behalf would coordinate the provision of essential infrastructure. Failing this, Council may be required to put in place arrangements to secure funding from the owners and coordinate the site works.

It is imperative that Council's financial risks are minimal in any arrangements to recoup costs for the necessary infrastructure. Provision of essential infrastructure such as roads, road drainage, stormwater treatment and electricity supply, also needs to be in place before the individual properties are developed and any non-essential infrastructure soon after.

Site costs could be recovered upfront or over a period of time. Options are briefly discussed below.

7.2.1 Development contributions - Contributions Plan

In 2010 the State Government introduced a cap on Section 94 contributions as follows:

- a cap of \$20,000 for established areas,
- a cap of \$30,000 for greenfield areas,
- the Minister to consider, on the application of a council and request of a developer, approving a higher contribution amount, subject to review by the Independent Pricing and Regulatory Tribunal (IPART).

It is likely that the site costs may exceed these caps, particularly given other section 94 contributions.

7.2.2 Voluntary Planning agreements

Voluntary planning agreement/s (VPA) could be used as a mechanism to establish a legally binding agreement with each landowner to pay their proportion of site costs upfront or through a schedule of payments. However, given the number of landowners involved it would be virtually impossible to get agreement from all landowners.

A VPA may be required with certain landowners to create an easement for the perimeter fire trail along the northern edge of the lots off Invermay Avenue before residential development could be approved on these lots (refer to Map 3).

To recoup costs above these amounts, Council would need to apply for a special variation Council could seek to recover the site costs. Details would be set out in a Contributions Plan that would be prepared for the subject land.

7.2.3 Special rates

Section 495 of the Local Government Act (1993) allows Council to levy Special Rates. A Council may make a special rate for or towards meeting the cost of any works, services, facilities or activities provided or undertaken, or proposed to be provided or undertaken, by the Council within the whole or any part of the Council's area, other than domestic waste management services. The special rate is to be levied on such rateable land in the council's area as, in the council's opinion:

- *benefits or will benefit from the works, services, facilities or activities; or*
- *contributes or will contribute to the need for the works, services, facilities or activities; or*
- *has or will have access to the works, services, facilities or activities.*

In 2006, Council determined that the most appropriate way to raise the funds necessary to carry out the re-zoning and associated road design for Jerberra Estate was via a special rate. Council was granted a special variation and subsequently introduced special rates in 2006/2007 to repay loans taken out by Council for the rezoning investigations and road design. These special rates will cease after 2015/2016 when the loans will have been repaid.

A road construction special rate was introduced in 2008/2009 to provide a relatively small amount of funding to progressively construct a 'spinal route' through the Estate and associated drainage work. The amount raised by this special rate is small in comparison to the cost of completing the road network. This arrangement will need to be reviewed as the planning process continues.

Council could seek to borrow funds required to complete the necessary site works (road construction, stormwater drainage, electricity etc.) and recoup costs via special rates from the benefitting properties over a given period.

7.2.4 Schedule 5, Environmental Planning & Assessment Amendment Act, 2008

Schedule 5 of the Environmental Planning & Assessment Amendment Act, 2008, sets out provisions for resolving paper subdivisions. The provisions have not commenced at this

point in time but it is understood that DP&I is preparing the draft regulations and accompanying guidelines which will enable these provisions to be enacted.

The provisions recognise that the existing subdivision layout in paper subdivisions may be inappropriate as well as the difficulties with getting the necessary commitments from multiple landowners to allow infrastructure to be provided and costs recouped. Importantly, the provisions would not override or circumvent existing legislative requirements concerning the identification of developable land.

The intent of the provisions is to enable land in paper subdivisions that is suitable for development to be developed and to specifically overcome the situation where a minority of landowners could potentially hold up, or prevent development of the land. A prerequisite to be able to utilise the provisions would be that at least 60% of the owners AND owners of at least 60% of the land area, consent to the proposed development plan.

The provisions were originally put forward to enable paper subdivisions in the Riverstone and Marsden Park (Blacktown LGA) to be developed, where Landcom is likely to be designated as the relevant authority. Other potential relevant authorities include a development corporation established under the Growth Centres (Development Corporations) Act 1974, a Council, or any other body prescribed by the regulations.

If enacted, the provisions would include additional means of recouping development costs from landowners. However, Council would need to carefully consider whether it would seek to be appointed as the relevant authority by the Minister and prepare a “development plan”. Doing so would put Council in the role of developer and potentially create a conflict of interest.

Planning Proposal Maps

- Map 1. Proposed zones.
- Map 2. Proposed minimum lot sizes.
- Map 3. Proposed building areas and bushfire planning information. This map shows where buildings would be located, construction level under AS3959, and the extent of bushfire asset protection zones (APZ). A suggested amalgamation plan is also shown to maximise the number of dwellings in both the Environmental Management (E3) and Environmental Living (E4) zones.
- Map 4. Proposed tree protection and conservation management areas.
- Map 5. Combined map showing building areas etc with conservation management areas.

Appendices

Copy of letter from former Department of the Environment, Water, Heritage & the Arts dated 15 March 2007.

Information Brochure – Jerberra Estate rezoning options, August 2010

Report to Council's Development Committee dated 17 January 2011 & resolution of 1 February 2011

Report to Council's Development Committee dated 7 June 2011 & resolution of 28 June 2011

Other supporting maps (contour map & slope analysis map)

Checklist for State Environmental Planning Policies and Ministerial Directions