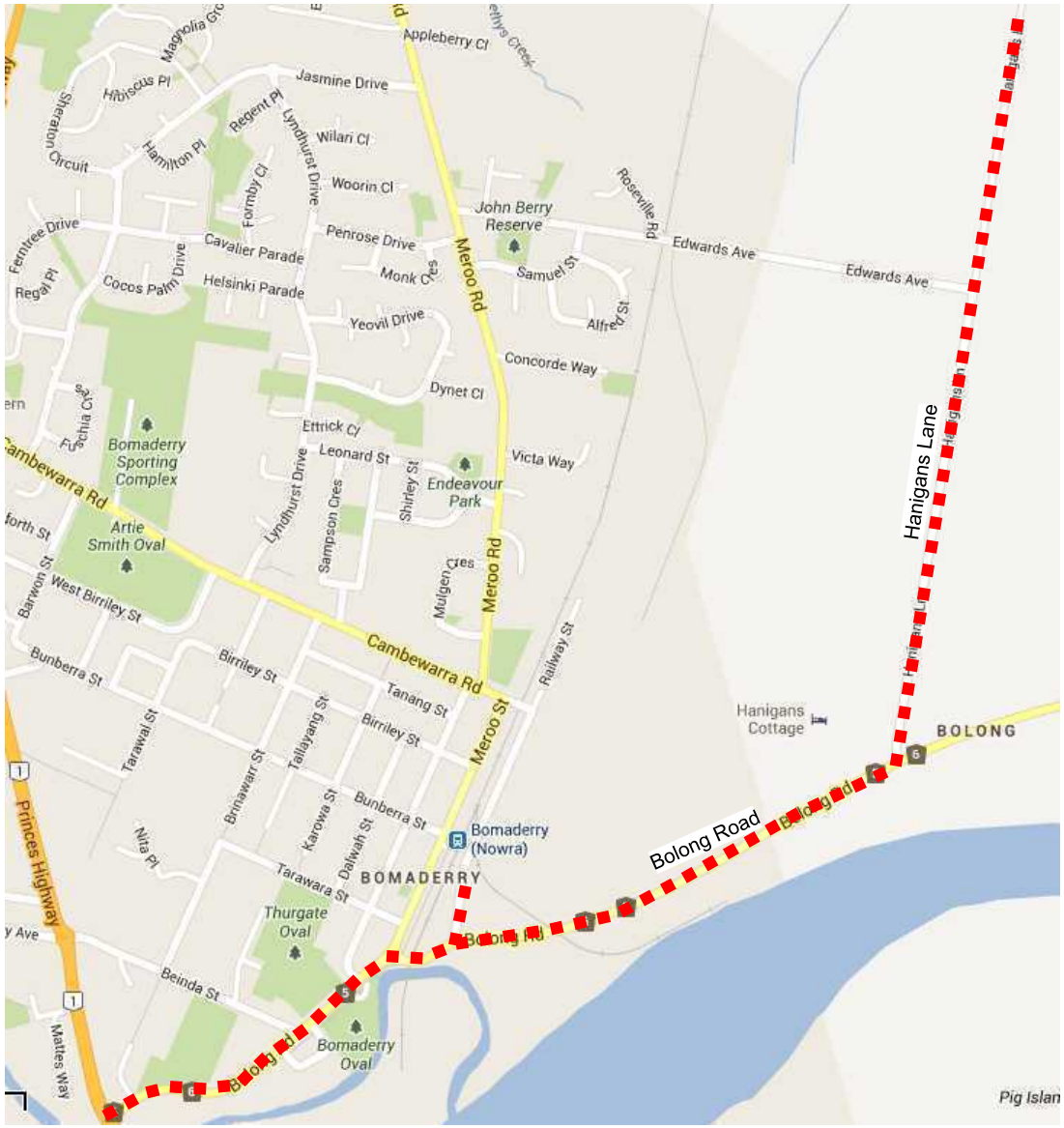
www.invarion.com



= Proposed 4.6m high vehicle route

Proposed 4.6m high vehicle route - Bomaderry

TRAF 2013/43

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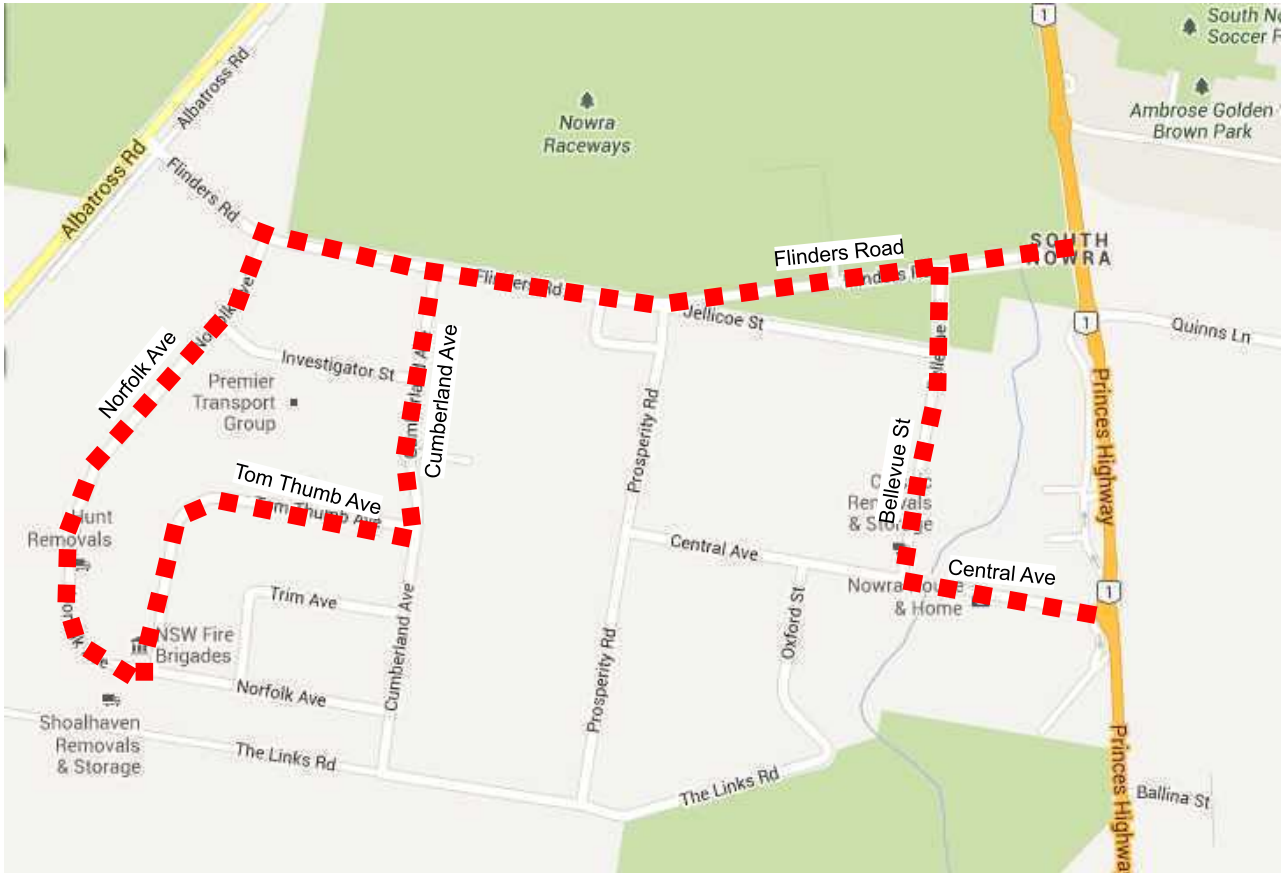

= Proposed 4.6m high vehicle route

Proposed 4.6m high vehicle route - South Nowra

TRAF 2013/44

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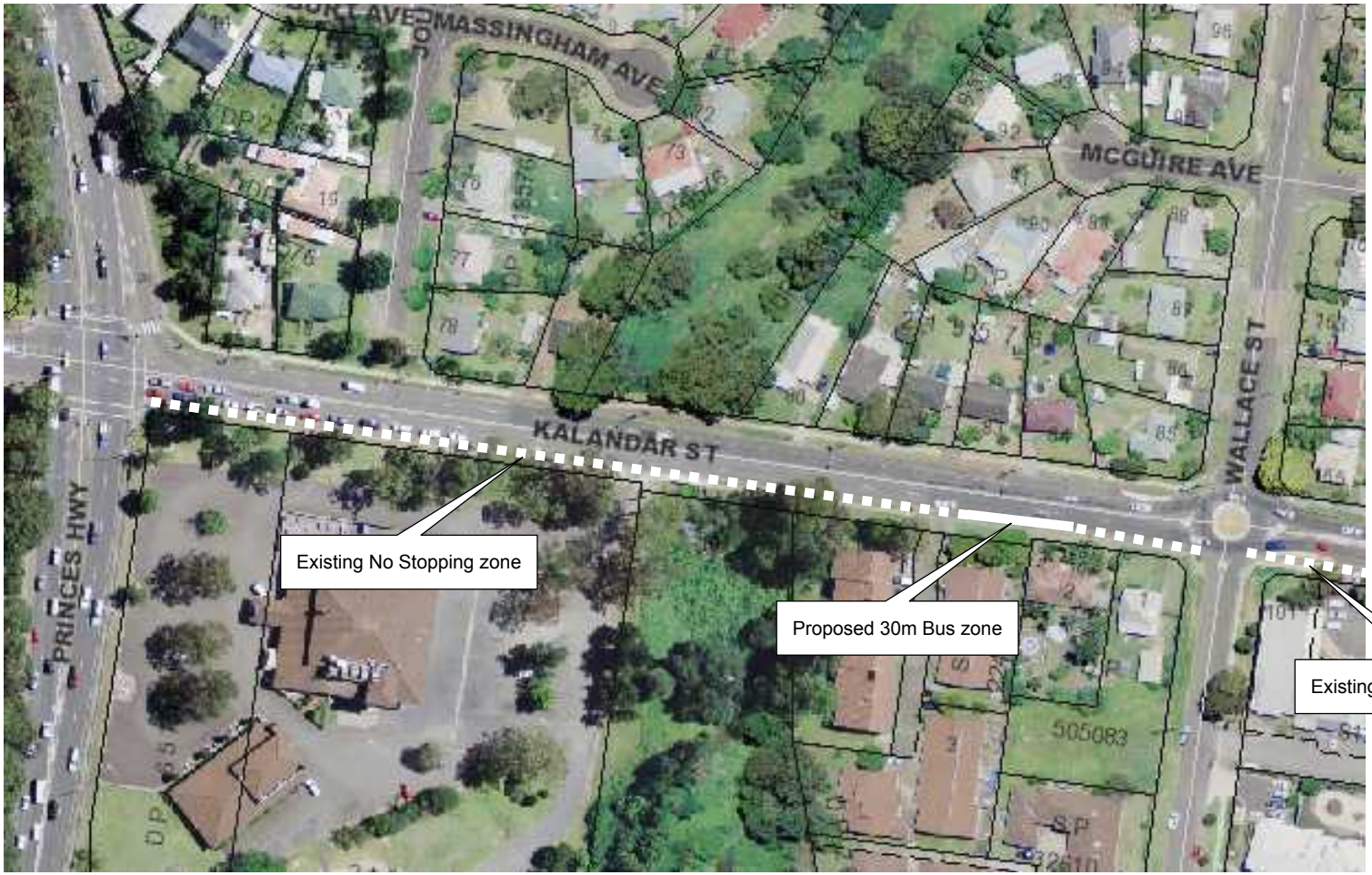
= Proposed 4.6m high vehicle route

TRAF 2013/45

Proposed 4.6m high vehicle route - South Nowra / Terara / Brundee



Proposed 30m Bus zone
Kalandar Street, Nowra

TRAF 2013/46

Business Name	Address
MacDonald Engineers	49 Berry St
Dymocks	70 Kinghorne St
Old Vid Ezy Store	96 Kinghorne St
	115 Junction St
Back of Pumpkin Patch	45 Kinghorne St
Back of Jellyfish Cafe	21 Kinghorne St
Cake Shop	86 Worrigee St
	114 Junction St
Woolworths	9 Kinghorne St
Best and Less	Junction St
	Junction St
Schofields Lane	132 Junction St
Complete Car Cleaning	65 North St
Print Shop	84 Kinghorne St
Panda Garden	79 North St
NAB	56 Kinghorne St
Bishops	18 Berry St
Chicken shop	15 Kinghorne St
Bargain Shop	15 Kinghorne St
IMB	4 Smith Lane
Firm Fitness	106 Kinghorne St
Schofields Lane	Schofields Lane
Shell	55 Kinghorne St
Stones & Sons	75 North St
Cash Converters	116A Kinghorne St
Kohlis	116A Kinghorne St
Cash Converters	118 Kinghorne St
Auto pro	118 Kinghorne St
Sports Clinic	1 McGrath Ave
Dept of Housing Wall	1 McGrath Ave
Nowra Auto	96 North St
Spotlight	26 Berry St
	34 Berry St
Computer Store	34 Berry St
Blooms	Schofields Lane
Emporium Lane	76 Junction St
Roxy	41 Berry St
	19 Kinghorne St
	11 Moss St
	Moss St
	88 Junction St

Business Name	Address
Illawarra Credit	88 Junction St
	98 Kinghorne St
Schofields Lane	Schofields Lane
Aspire	30 Berry St
Jolly Olly	Stewart Pl
Eye Q	59 Kinghorne St
Drug & Alcohol Service	47 Berry St
	38 Berry St
Sureway	38 Berry St
Ink Gallery	114 Kinghorne St
Uptown Laundrette	54 Berry St
Nowra Palace	54 Berry St
Network Hairdressers	85 Worrigee St
Various	85 Worrigee St
CB Consultants	120 Kinghorne St
Chemist Outlet	5 Nowra Lane
Office Works	108 Kinghorne St
Campbell Page	108 Kinghorne St
Endeavour	108 Kinghorne St
Schofields Lane	Schofields Lane
	19 Nowra Lane
Laneway	Junction St
Reject Shop	20 Kinghorne St
Caresouth	11 Haigh Ave
Schofields Lane	Schofields Lane
Schofields Lane	116 Junction St
Leading Edge?	72 Kinghorne St
	94 Kinghorne St
Residence Along fence line in Glass Lane	6 McGrath Ave
Residence Along fence line in Glass Lane	7 McGrath Ave
Laundrette	62 Kinghorne St
Telstra Exchange	71 Worrigee St
Schofields Lane	118 Junction St
Illawarra Credit	82 Junction St
Old Repair shop	Smith Lane
Dept of Housing	70 Graham St
	Haigh Ave
Ella Bache	39 Berry St
Complete Car Cleaning	61 North St
Liberal Members Offices	24 Berry St

Development Control Plan No. 125

Jerberra Estate

File Reference: 46741E

Adopted by Council:

Effective from:

Shoalhaven City Council
PO Box 42
NOWRA NSW 2541
telephone (02) 4429 33320
facsimile (02) 4429 3168
e-mail council@shoalhaven.nsw.gov.au
internet www.shoalhaven.nsw.gov.au

Disclaimer

Every effort has been made to provide accurate and complete information. However, Shoalhaven City Council assumes no responsibility for any direct, indirect, incidental or consequential damages arising from the use of information in this document.

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1 Introduction

1.1 Where this applies

This DCP applies to land within the Jerberra Estate identified in Figure 1. The land is located 20 km south of Nowra and 1.5 km east of Tomerong.

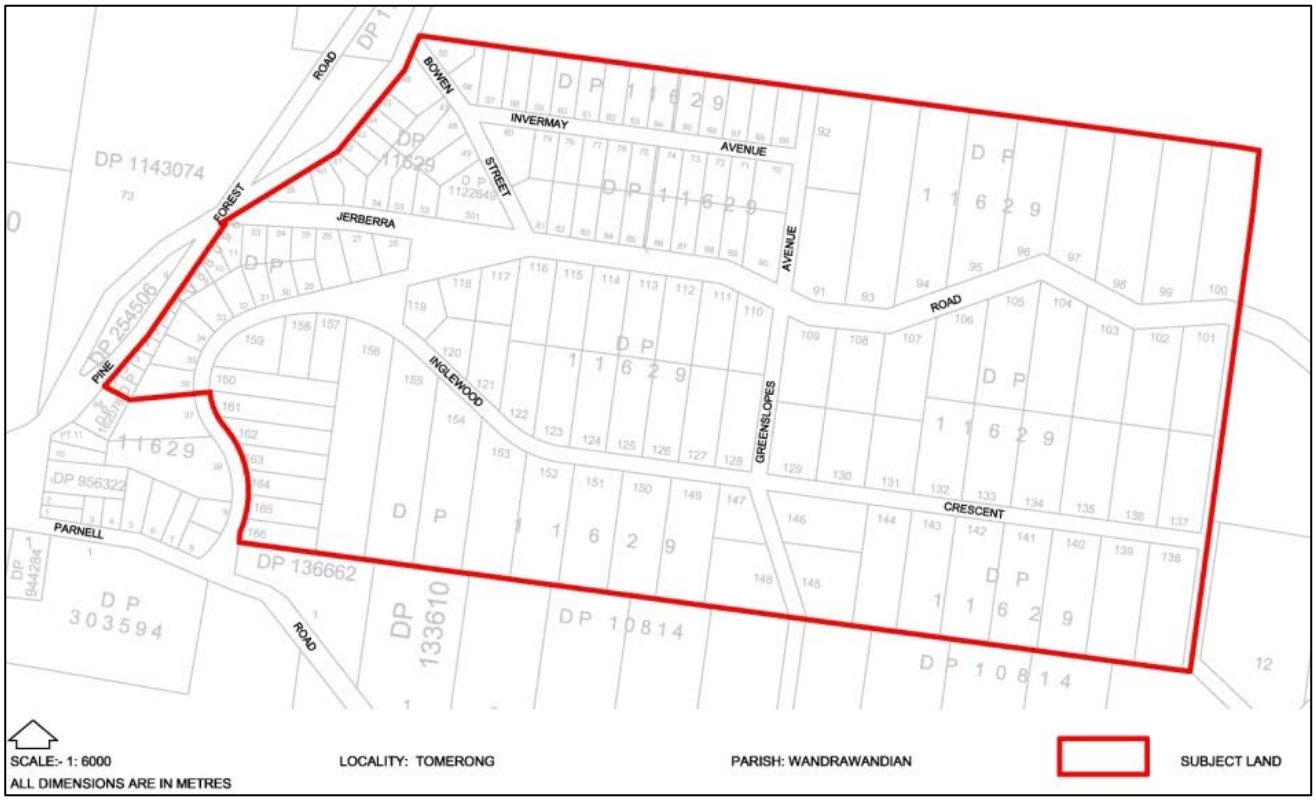

Figure 1 Subject Land

1.2 Key objectives

a) To facilitate the development of land in Jerberra Estate with appropriate acknowledgement of environmental constraints in accordance with the provisions of Shoalhaven Local Environmental Plan (Jerberra) 2013 (referred to herein as the Jerberra LEP) and the Jerberra Estate Planning Proposal.

b) To facilitate the protection and rehabilitation of habitat for the range of threatened species known to occur on the land.

c) To facilitate amalgamation of lots where this is necessary to enable development.

d) To manage risks associated with bushfire.

e) To apply best practice on-site effluent and stormwater management principles during and following construction so that natural flow and water quality regimes are maintained and sensitive downstream environments, including Moona Moona Creek and the Jervis Bay Marine Park, are protected.

f) To enable all existing unauthorised structures to either be regularised, if this can be achieved, or removed.

1.3 Context /Background

The Jerberra Estate is a 152 lot 'paper subdivision' originally created in 1922 without any infrastructure to support its development. Until recently, the land had very limited development potential due to the relevant planning controls. The land has generally remained undeveloped and un-serviced bushland apart from numerous unauthorised structures.

Council initially commenced rezoning investigations in 1992, but the matter was unable to be progressed to the landowners' satisfaction due to various land constraints and the inappropriate configuration of the original subdivision layout in terms of contemporary planning and environmental framework.

Detailed studies undertaken since 2005 on a range of issues including flora and fauna, bushfire and on-site effluent application, have identified high conservation value lands that need to be set aside for protection. The remaining land in the Estate has some potential for housing. However not every lot can accommodate a dwelling due to the need to conserve sensitive environmental areas that are protected by legislation, manage bushfire risk, and provide services and infrastructure.

In 2010, a land pooling and resubdivision option that could have potentially benefitted all landowners was investigated, but was ultimately abandoned in 2011 due to a lack of landowner support.

Council exhibited a Planning Proposal in 2012 based on a 'constrained development' option that would potentially enable up to 83 dwellings to be approved. The Planning Proposal included a high level of detail on how development and conservation objectives could be achieved, including the location of dwellings, bushfire asset protection zones, bushland conservation areas, and lot amalgamation plan.

Minor changes to the Planning Proposal were adopted by Council in December 2012 in response to public submissions, potentially enabling the approval of up to 87 dwellings. The revised Planning Proposal was submitted to the Department of Planning and Infrastructure in early 2013 and the Jerberra LEP was notified by the Planning Minister on {insert date} with a commencement date of {insert date}.

Commencement of the Jerberra LEP will allow some residential development to potentially be approved within the Estate. Development Control Plan No. 125 – Jerberra Estate (referred to herein as the Jerberra DCP) has been prepared to achieve the development and environmental outcomes described in the Planning Proposal, whilst managing bushfire risk in accordance with current standards.

1.4 Relationship to other plans

This DCP is to be read in conjunction with the Jerberra LEP and other relevant DCPs and policies listed in the relevant sections. In the event of any inconsistency between the provisions of this DCP and other DCPs which apply to the land, this DCP shall prevail.

The Jerberra LEP contains the statutory definitions, aims, land use zones and objectives, principal development standards (e.g. minimum lot size) and associated controls.

This DCP provides detailed guidelines and controls to supplement and support the Jerberra LEP. In the event of any inconsistency between the provisions of the Jerberra LEP and this DCP, the provisions of the Jerberra LEP shall prevail.

1.5 Exempt and complying development

To achieve the development, environmental, bushfire risk management and equity objectives, many of the provisions of State Environmental Planning Policy (SEPP) - Exempt and Complying Codes do not apply to the land. Essentially this means that a development application will be required for any proposed structures such as dwellings, sheds, garages, pergolas and the like. Hence, you may wish to include details of any such proposed ancillary structures in your development application for a dwelling.

SEPP (Exempt and Complying Development Codes) 2008 can be viewed online at:

http://www.legislation.nsw.gov.au

1.6 Definitions and abbreviations

Asset Protection Zone (APZ): The area surrounding the dwelling and associated structures where fuel loads are managed to minimise and slow the spread of fire and provide a defendable space for fire fighters. Onsite effluent application areas and stormwater infiltration trenches are also to be located within the APZ.

BAL-20: This is a construction standard under "AS3959 – Construction of buildings in bushfire prone areas". 'BAL' stands for bushfire attack level and '29' means the building is designed to withstand ember attack and radiant heat of up to 29kW/m^2.

Bushland Conservation Area (BCA): An area in which no development is allowed must be fenced and retained as native bushland. If the land is currently cleared, it must be allowed to regenerate and/or be rehabilitated.

Bushland Management Area (BMA): T he same controls apply as for the BCA except that driveways are allowed.

Development Control Plan (DCP): A Development Control Plan (DCP) provides detailed planning controls and guidelines for certain types of development and/or localities.

Dog-proof fencing: Fencing provided around the perimeter of the APZ on each property, to prevent dogs from escaping.

Effluent Application Area: A dedicated area in which treated effluent is applied to the soil.

Important habitat trees: Hollow-bearing trees (including Yellow-bellied Glider den trees and Gang-gang Cockatoo nest trees), Glossy-Black Cockatoo feed trees (*Allocasuarina littoralis*) and Yellow-bellied Glider feed trees.

Local Environmental Plan (LEP): A legal document prepared by Council and approved by the State Government to regulate landuse and development through zoning and development controls.

Minimum lot size map: A map that forms part of the LEP showing the minimum area required for dwellings and residential subdivision.

Orchid Management Area: Areas where the threatened orchid *Pterostylis ventricosa* occur within APZs that require specific management to ensure they are not harmed.

Potential Building Area: The area identified on Figure 4 for the location of dwellings and associated structures should be contained so that your property and neighbouring properties can be safely and appropriately developed.

Some flexibility is allowed within the bushfire asset protection zones (APZs), however locating your dwelling and associated structures within the potential building area will make the development approval process more straightforward.

Stormwater Infiltration Trench / Bioretention System: A purpose built absorption trench designed to store and filter stormwater runoff from dwelling and associated structures.

Variation statement: A written statement accompanying a development application demonstrating how the objectives and relevant performance criteria will be achieved if an alternative to the 'acceptable solutions' is proposed.

Wildlife friendly fencing: Fencing provided in the BMA/BCA to limit disturbance whilst not impeding the movement of wildlife, comprising posts and plain wires.

2 Submitting an application

2.1 Before You Submit Your Application

Applications for residential development will only be able to be considered if the area of land satisfies the requirements of Part 4 of the Jerberra LEP and the minimum lot size map that forms part of the LEP. **Schedule 1** identifies development opportunities in this regard for each existing lot in Jerberra Estate.

Dwellings are not able to be approved on all allotments within the original Jerberra Estate subdivision. In a number of instances, a dwelling may potentially be able to be approved if two or more allotments are amalgamated. The ability for dwellings to be approved on land is controlled in Part 4 of the Jerberra LEP and the accompanying minimum lot size map.

In order to assist you in identifying whether a dwelling is able to be approved on your land, either with or without it being amalgamated with other lots, **Schedule 1** to this DCP lists all properties currently within Jerberra Estate, and identifies whether a dwelling is potentially able to be approved, and if not, the desired lot amalgamation arrangements in order to meet the minimum lot size required by the Jerberra LEP.

Schedule 2 attached to this DCP provides further guidance as to the options that are available to you if lot amalgamation and/or subdivision is required to enable development.

It may assist to liaise with your neighbours when preparing your development application, for example, where arrangements need to be put in place to manage bushfire risk in accordance with legal requirements. **Schedule 1** also identifies lots where additional requirements may apply.

Further information including various strategic planning assessments is available on Council's website at:

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

2.2 How to Address the Requirements of this Plan

Any application for development in Jerberra Estate under the Jerberra LEP will need to address the provisions contained in this Development Control Plan (DCP). Section 3 of this DCP addresses the following issues:

- Lot Amalgamation and subdivision;
- Biodiversity Conservation;
- Bushfire Risk Management;
- Vehicular Access;
- On-site Effluent Treatment and
- Stormwater Management; and,
- Building Envelopes.

In each section you may find a combination of Objectives, Mandatory Controls, Performance Criteria and Acceptable Solutions.

Objectives: For each Section or topic of relevance, objectives will clearly state what Council seeks to achieve once the Controls or the Performance Criteria are met.

Mandatory Controls: Are specific, prescriptive measures required for achieving the desired objectives.

Performance Criteria: Identify how a development should perform so that the desired objectives can be achieved.

Acceptable Solutions: Indicate how the development can achieve the desired performance and objectives.

2.3 Summary of area-based Controls

Different controls apply to different parts of Jerberra Estate that are identified in Figure 2 and Figure 3. A quick reference guide on activities that can or cannot be undertaken in each of the above areas is provided in Table 1.

Figure 2 - Suggested subdivision layout and bushfire management information

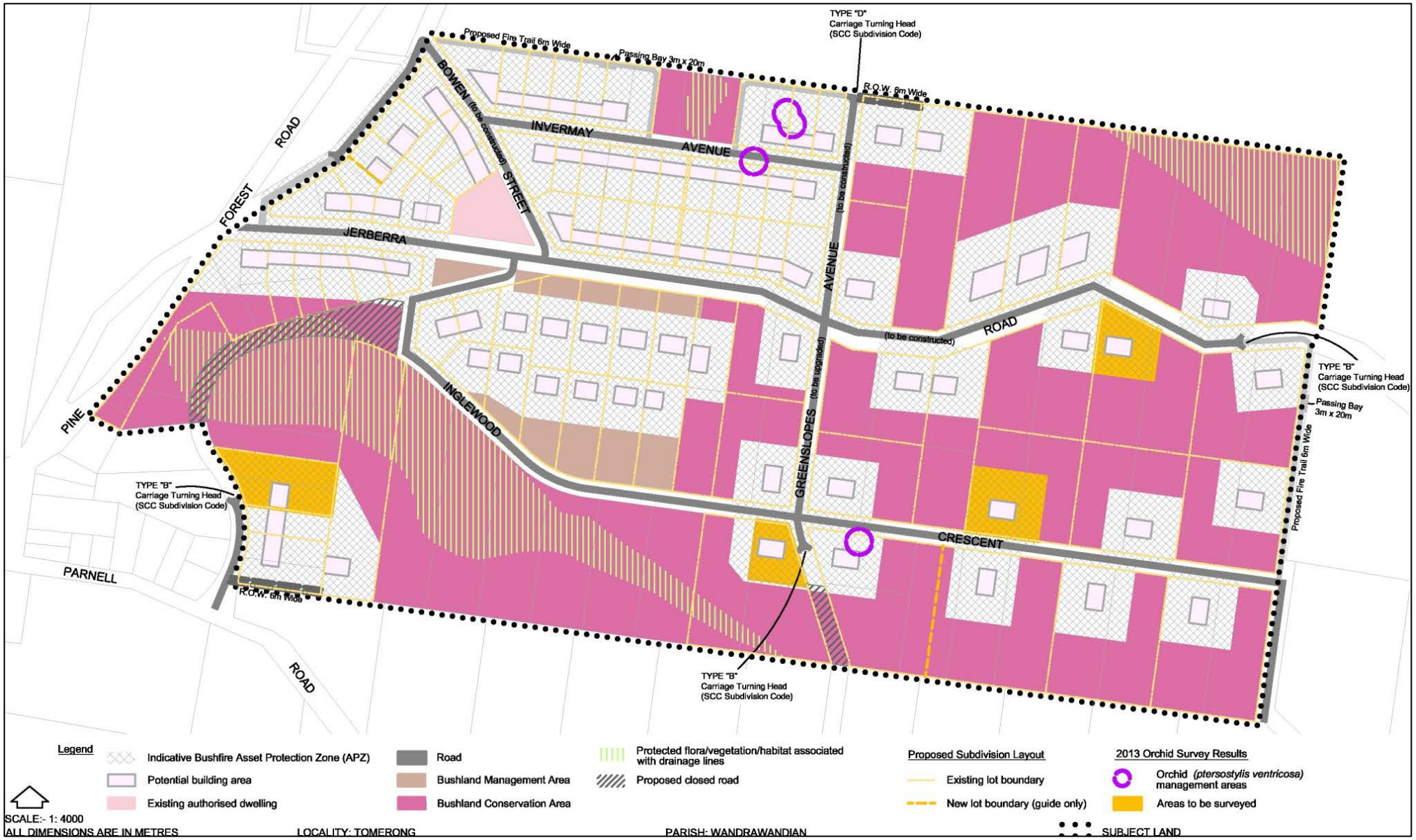

Figure 3 - Bushland management and conservation areas, and orchid (*Pterostylis ventricosa*) management areas

Table 1 - Reference guide to activities that can be undertaken in Jerberra Estate

✓ = Allowable ✓* = Generally allowable subject to conditions X = Not allowable X* = Generally not allowable except in certain circumstances NA = Not applicable	Building Area & APZ	Bushland Management Area	Bushland Conservation Area	Orchid Management Area
Vegetation Management				
Removal of native vegetation (conditions apply to orchid areas)	✓*	X	X	✓*
Removal of native hollow-bearing trees	X*	X	X	X*
Removal of other native habitat trees (e.g. feed trees)	✓*	X	X	✓*
Removal of other native trees	✓*	X	X	✓*
Planting of non-native plants (e.g. fruit trees)	✓	X	X	✓
Planting of indigenous plant species for landscaping	✓*	✓	✓	X*
Rehabilitation of disturbed areas with indigenous species	✓*	✓	✓	X*
Removal of non-native plants (excluding weeds)	X	✓	✓	✓
Removal of noxious and environmental weeds	✓	✓	✓	✓
Slashing/mowing (conditions apply to orchid management areas)	✓*	X	X	X*
Dumping of lawn clippings	✓	X	X	X
Animal management				
Dogs off leash (Max. 2)	✓*	X*	X*	X
Cats (must be confined indoors or in a cat run)	✓*	X	X	X
Grazing animals	X*	X	X	X
Feral animal control	✓*	✓*	✓*	✓*
Driveways and vehicle access				
Construction of driveways and road access (with DA approval)	✓*	✓*	X	X
Removal of habitat trees for driveway construction	X*	X*	X	X
Vehicle access (excluding effluent application areas)	✓*	X*	X	X
Fencing				
Dog-proof, wildlife friendly fencing around APZ perimeter	✓*	X	X	NA
Plain wire fencing around property boundaries	X	✓*	✓*	NA
Barbed wire or electric fencing	X	X	X	X
Hand clearing within 1 metre of the fence line	✓	✓*	✓*	✓*
Removal of trees for fencing	✓*	X	X	NA
Effluent treatment and application				
Application of primary-treated effluent	X	X	X	X
Surface application of secondary-treated effluent	X	X	X	X
Sub-surface application of secondary-treated effluent	✓*	X	X	X
Vehicle access over application area	X	NA	NA	NA
Stormwater drainage				
Stormwater infiltration trenches	✓*	X	X	X
Buildings and non-habitable structures				
Buildings and non-habitable structures	✓*	X	X	X
Firewood collection				
Firewood collection for personal use (no live trees or hollows)	✓*	X	X	✓*
Stock piling of building material and other items				
Stockpiling of items not naturally occurring on site	✓*	X	X	X
Stockpiling of material around the base of retained trees	X	X	X	X

2.4 Other Considerations

Applications will also need to address other relevant DCPs, policies, Australian Standards and other documentation referred to relevant sections and are listed in Section 4.

2.5 Information Required with Development Applications

In preparing a development application for development within the Jerberra Estate, your application must include:

- Plans of the proposed development including:
  - Site Analysis Plan showing relevant attributes of the site in relation to adjoining land;
  - All necessary building plans including floor plans, elevations, and sections;
  - BASIX Certification where a new dwelling or alterations and additions, are proposed;
  - A tree and vegetation plan showing trees (and where relevant, Orchid Management Areas) within or adjacent to the APZ, and shows which trees will be retained and which will be removed or lopped;
  - Details of driveways and hardstand areas;
  - Fencing details; and,
  - Schedule of external finishes.
- A combined drainage application for the onsite effluent treatment and application system and the stormwater infiltration system. The application will need to include a detailed layout plan plus various other details.
- A Bushfire Assessment.
- An Erosion and Sediment Control Plan.
- Statement of Environmental Effects (SEE) detailing compliance with the requirements of this DCP and any other relevant DCPs. The SEE is to include a Variation Statement if any variation to the requirements is sought. A Jerberra-specific SEE form will be available for landowners to assist landowners in this regard.

A Threatened Species Assessment may be required under certain circumstances outlined in Section 3.2.

In some cases, 'section 88B restrictions-as-user' will need to be placed on property titles either prior to (e.g. for bushfire perimeter fire trails), or in conjunction with the development approval process. This will require the services of a registered surveyor (as will lot amalgamation or subdivision). Further guidance on circumstances where this may apply is provided in Section 3 of this DCP.

2.6 Variations to 'Acceptable Solutions'

The 'acceptable solutions' provided in this DCP are 'deemed to satisfy' measures for the respective performance criteria and objectives. Council can consider alternative solutions in certain circumstances provided the objectives and performance criteria are met.

Variation to the 'deemed to satisfy' measures in this DCP will be considered on a case by case basis and will only be considered. Justification in the form of a 'Variation Statement' demonstrating how the objectives and relevant performance criteria will be achieved, must be provided with the application.

The Variation Statement must address the following matters:

a) The control being varied;

b) The extent of the proposed variation and the unique circumstances as to why the variation is being sought;

c) Demonstrate how the relevant objectives and performance criteria are being met with the proposed variations; and,

d) Demonstrate that the development will not have any additional adverse impacts a result of the variation.

The Variation Statement must be contained within the SEE accompanying the development application, and is to be supported by other documentation as necessary. This may include but not be limited to; a detailed site analysis; supporting expert reports, photographs, plans, engineering details etc.

The fact that an existing development may not comply with one or more of the controls, does not necessarily mean that the development control is unreasonable or unnecessary when applied to new development proposals.

3 Provisions

3.1 Lot Amalgamation and Subdivision

3.1.1 Introduction

In a number of cases, development of land in Jerberra Estate will only be possible if lots within the original subdivision are combined and amalgamated. Refer to Schedule 1. A suggested subdivision layout has been designed to avoid sterilising lots that might otherwise have some development potential.

3.1.2 Allowable variation to the minimum lot size

In a few cases, development applications will need to be accompanied by a written request to vary the minimum lot size under clause 4.6 of the Jerberra LEP. This is necessary because the combined area of the lots in question is marginally less than the corresponding area on corresponding minimum lot size map in the Jerberra LEP.

The written request will need to state that compliance cannot be achieved and that the variation is consistent with the outcomes described in the Jerberra Estate Planning Proposal. A template for such requests is provided in Schedule 3 to facilitate this. The Lots in question are:

- Lots 138 & 139
- Lots 140 & 141
- Lots 137 & 136
- Lots 135 & 134
- Lots 133 & 132

Note that these lots will still need to be amalgamated to enable development.

3.1.3 Objectives

O1 To ensure development opportunities resulting from the reduction in the minimum lot size from 40 ha are realised.

O2 To facilitate a beneficial and equitable outcome for as many landowners as possible.

O3 To ensure compliance with all relevant requirements including planning for bushfire protection.

3.1.4 Performance criteria and acceptable solutions

Performance Criteria	Acceptable Solutions
P1 Any subdivision will enable compliance with the minimum lot size required by the Jerberra Estate LEP and ensure that: • the number of dwellings shown on Figure 2 (note 'dwelling reference number) is not altered and their location does not change;	A1.1 Lots will be consolidated, and where relevant re-subdivided, as shown in Figure 2.

Performance Criteria	Acceptable Solutions
• planning for bushfire protection requirements will be satisfied and there will be legal certainty that APZs can/will be maintained in perpetuity (i.e. the APZ is within property boundaries or overlaps and is mutually beneficial with APZs on adjoining properties; • the APZ will not conflict with or impact on bushland conservation areas or other restrictions on the lot in question or adjoining lots; and • no lots will be sterilised or orphaned from development and amalgamation opportunities.	

3.1.5 Supporting information

Refer to Schedules 1 and 2 to this DCP.

3.1.6 Other DCPs you must check

DCP 100 – Subdivision code

3.2 Biodiversity Conservation

3.2.1 Introduction

Detailed flora and fauna investigations undertaken from 2005 to 2007 identified a range of threatened animals such as Glossy-black Cockatoos, Yellow-bellied Gliders, Owls, Eastern Bristlebirds and Micro bats. Protected vegetation including the Biconvex Paperbark and Swamp Sclerophyll Forest (which is an Endangered Ecological Community in NSW) also occurs within the riparian areas along the main drainage lines.

The Eastern Bristlebird and Biconvex Paperbark, both of which occur in the E2 – Environmental Conservation areas are protected under Federal as well as NSW Environmental law. Approval is required under the *Environment Protection and Biodiversity Conservation Act* (*EPBC Act*) for any activities that could impact on these biodiversity values. Further information is available at the following website:
http://www.environment.gov.au/cgi-bin/epbc/epbc_ap.pl?name=current_referral_detail&proposal_id=6415

Habitat for most of the threatened animals in Jerberra Estate will largely be retained in the Bushland Conservation Area (BCA) and the Bushland Management Area (BMA). The location of the areas has been designed to contain most of the important habitat trees and provide habitat linkages. Important habitat trees also occur within a number of the identified APZs. A species of threatened orchid (*Pterostylis ventricosa*) also occurs in a small number of the identified APZs.

The areas described above are identified on Figure 3 and different provisions apply to each.

Notes:
1. Under clause 5.9 of Shoalhaven LEP (Jerberra) 2013, you must not ringbark, cut down, top, lop, remove, injure or wilfully destroy any tree within Jerberra Estate without Council's consent (issued either via development consent or a tree removal permit).
2. Council's Tree Policy does not apply to Jerberra Estate.

Biodiversity-related provisions that apply to the APZ are set out in Section 3.2.4 of this DCP. Provisions that apply to the BCA and BMA are set out in Section 3.2.5.

3.2.2 Legal requirements for considering the impact of proposed development

The NSW *Threatened Species Conservation Act 1995* (TSC Act) provides for the conservation of threatened species, populations and ecological communities of animals and plants.

Section 5A of the *Environmental Planning and Assessment Act 1979* (The EP&A Act) sets out a 'seven-part test' for considering the potential impact of a proposed development on critical habitat, threatened species, populations or endangered ecological communities, and their habitats.

As development of land in Jerberra will potentially impact on known threatened species habitat, Council has engaged consultants to undertake the necessary 'seven-part test' to help streamline the assessment process at development application stage. The assessment was based on the full suite of planning controls and measures in the LEP and DCP for Jerberra Estate. Any development proposal that does not conform to these measures will need to be supported by a separate seven-part test. Where there is any doubt regarding the likely impact or where detailed information is not available, supplementary information may need to be provided by the applicant. A Species Impact Statement (SIS) will need to be prepared if the seven-part test concludes that there will be a significant impact.

3.2.3 Objectives

O1 To restore, protect and enhance biodiversity value of the strategically identified bushland conservation areas, including any areas which are currently cleared or degraded.

O2 To encourage the retention of important habitat trees within the identified APZs and to clarify information needed if you propose to remove or lop any such trees.

O3 To ensure any known sites of the threatened orchid, *Pterostylis ventricosa* are managed to ensure no individuals are harmed or removed.

O4 To ensure any residential development is sensitively designed and managed to protect the integrity of surrounding bushland areas.

O5 Ensure any development is consistent with the conditions associated with the Federal Government's determination under the EPBC Act.

3.2.4 Managing biodiversity within APZs

Important habitat trees

While most of the important habitat trees are located within the BMA/BCA (refer to Section 3.2.5) some are also located within the areas proposed for development (i.e. potential building areas and APZs).

Council has detailed records of important habitat trees from the 2005-2007 flora and fauna assessment. It is strongly recommended that you contact Council on (02) 4429 3111 before you prepare your development application to see if there are any such trees within your building footprint and APZ.

Your site plans will need to show all existing trees within the APZ and building area, and identify those that will be removed and those that will be retained.

As far as possible, important habitat trees should be retained within the APZ. If this is not possible or appropriate, priority should be given to retaining trees with hollows. This is because a wide range of native animals shelter and/or breed in tree hollows. Furthermore, they can be nocturnal or diurnal and difficult to detect. Council's Threatened Species Officer will need to inspect any trees proposed to be removed and further assessment may be required if the tree(s) contain any visible hollows.

You may be able to avoid having to remove any hollows by positioning your dwelling further away and/or lopping the tree (and retaining the hollow) rather than removing it completely. In some circumstances you may be able to locate your dwelling outside the identified potential building area.

Threatened orchid (Pterostylis ventricosa) management areas

In May 2013, Council commissioned a survey for the threatened orchid *Pterostylis ventricosa*. The survey was limited to the potential development areas (*i.e.* potential building areas, APZs and the BMA). The results of the survey are shown Figure 3.

Approximately forty six (46) individuals of *Pterostylis ventricosa* were identified in four small clusters, as outlined below.

- Approximately twenty (20) plants within 5 m^2 on the southern verge or the unmaintained vehicle track on Invermay Avenue, adjacent to Lot 72.
- Approximately twenty (20) plants within 15 m^2 of a previously cleared area north of Invermay Avenue on Lot 68.
- A single plant north of Invermay Avenue on Lot 67.
- Approximately five (5) plants within 2 m^2 on a previously disturbed area south of Inglewood Crescent on Lot 146.

All of the orchids were found in the Blackbutt-Spotted Gum Open Forest community that occurs on the eastern side of the Estate (refer to the Jerberra Estate Environmental Management Plan appended to this DCP).

Four properties were not surveyed at the landowners' request. These areas will need to be surveyed before development can be approved. (Refer to Figure 3)

With appropriate controls and mitigation measures, the orchids can potentially be retained within an APZ. Refer to the relevant performance criteria and acceptable solutions below. Alternatively, if the orchids have to be removed or are likely to be adversely impacted, a species impact statement (SIS) is likely to be required.

Mandatory Controls

C1 Cats will only be kept within the dwelling or a cat run connected to the dwelling.

C2 A maximum of two dogs will be kept on the property at any one time and they will be confined to the dwelling and APZ.

C3 Dog proof fencing will be provided around the perimeter of the APZ – refer to Figure 4.

C4 Barbed wire or electrified fencing is not allowed.

C5 Grazing animals will not be kept on the property.

C6 Noxious and/or environmental weeds will be removed from the APZ.

Performance criteria and acceptable solutions

Table 2 - Performance criteria and acceptable solutions for managing biodiversity in APZs

Performance Criteria	**Acceptable Solutions**
P1 Important habitat trees are retained within the APZ subject to compliance with the NSW RFS's specifications for APZ maintenance.	A6.1 Separation of two (2) to five (5) metres will be provided between tree canopies and tree canopies will not overhang within (2) to five (5) metres of the dwelling. Priority should be given to retaining hollow-bearing trees, and feed trees for the Yellow-bellied Glider and the Glossy-black Cockatoo. **Notes** 1. Consent is required to remove any trees greater than five (5) metres under clause 5.9 of the LEP. 2. You will need to engage an appropriately qualified consultant to do a targeted survey of any hollow-bearing trees that you propose to remove from the APZ and a qualified wildlife handler must be present on site during removal to rescue any fauna residing in the tree.
P2 All known individuals of the threatened orchid *Pterostylis ventricosa* will be retained and protected. Alternatively, a 'seven-part test' and if necessary, a Species Impact Statement (SIS) is provided by the applicant.	A2.1 The applicant demonstrates that the Orchid Management Area will be managed in perpetuity as follows: • Before any building work commences, a physical barrier using fencing, logs or large rocks will be provided five (5) to ten (10) metres around the orchids, to exclude vehicles, domestic animals and other potentially damaging activities. • Vegetation will only be managed between the months of October and February (inclusive) when the orchid is dormant.

Performance Criteria	Acceptable Solutions
	• Understorey vegetation will be thinned with hand tools only. • Weeds and exotic grasses will be removed by hand. • Herbicides and fertilizers will not be applied. • Stormwater will be diverted around the Orchid Management Area. • Household effluent will not be applied within the Orchid Management Area. • Domestic animals will be excluded from the Orchid Management Area. A2.2 The Orchid Management Area will be monitored annually so that the above measures can be evaluated and adjusted if necessary.
P3 Trees that will be retained will be protected from potentially damaging activities during construction.	A3.1 Trees that will be retained will be protected in accordance with AS4970 (Protection of trees on development sites) from the impacts of: • machine excavation including trenching; • excavation for silt fencing; • cultivation; • storage; • preparation of chemicals, including preparation of cement products; • parking of vehicles and plant; • refuelling; • dumping of waste; • wash down and cleaning of equipment; • placement of fill; • lighting of fires; • soil level changes; • temporary or permanent installation of utilities and signs; and • physical damage to the tree. A3.2 Building material and other items will not be stockpiled within the root zones of any important habitat trees or vegetation that have been retained within the APZ.

P4 Location and construction of driveways and/or access roads minimise the impact on biodiversity within the APZ.	A4.1 The driveway/access road avoids the need to remove or damage any hollow-bearing trees and Orchid Management Areas. A4.2 The driveway/access road minimises the need to remove or damage Yellow-bellied Glider feed trees and/or Glossy Black-cockatoo feed trees. **Notes:** 1. Contact Council prior to submitting your development application to assist in determining the best location for the driveway/access road. 2. Refer also to Section 3.6 for other requirements relating to driveway design.
P5 Management of effluent and stormwater does not impact on important habitat trees and vegetation that will be retained within the APZ.	A5.1 Treated effluent is not applied beyond the APZ. The effluent application area does not require the soil under the crowns of any retained trees to be disturbed. A5.2 Treated effluent is not applied to Orchid Management Areas (refer to Figure 3). A5.3 The location of stormwater infiltration trenches is not located within the root zones of retained trees. Stormwater is to be managed in accordance with Section 3.6 of this DCP. **Notes:** 1. The effluent application area and stormwater infiltration trench must be shown on your plans. Refer to Sections 3.5 and 3.6 for details on on-site effluent and stormwater management respectively.

3.2.5 Bushland Conservation Area (BCA) & Bushland Management Area (BMA)

This section of the DCP provides guidance on management of the BMA and BCA. Further information is also provided in the Jerberra Estate Environmental Management Plan appended to this DCP.

Mandatory Controls

C1 Driveways are permitted within the BMA (refer to Table 3 for further detail).

C2 Driveways are not permitted within the BCA.

Other than driveways, the same controls apply to the BMA and BCA, as outlined below:

C3 Both the BMA and BCA must be fenced and protected from development. Any land that is currently cleared or degraded must be restored to a natural condition.

C4 No trees or native vegetation is to be removed, slashed or mowed from the BMA/BCA unless:

- authorised under the *State Emergency and Rescue Management Act 1989*;

- authorised under the *Rural Fires Act 1997*;
- in accordance with a bushfire management plan; or
- approved by Council under Clause 5.9 of Shoalhaven LEP (Jerberra) 2013. See notes below.

C5 No barbed wire or electrified wire is used.

C6 Any non-native vegetation must be removed.

C7 The use of vehicles and/or bikes (including 4WD, cars, trail bikes, motorcycles and pushbikes) is not allowed.

C8 Treated effluent is not to be applied.

C9 Stormwater infiltration trenches are not allowed.

C10 Buildings or non-habitable structures or their APZs are not allowed.

C11 Firewood collection is not permitted.

C12 Building material and/or other items that do not occur naturally on the site must not be stockpiled.

C13 Cats, domestic animals or grazing animals are not allowed.

C14 Dogs are only allowed within the BCA and BMA during daylight hours if on a leash.

Notes:

1. Lopping or removal of trees or vegetation from the BCA/BMA will only be considered if a risk assessment has been undertaken in accordance with Part 2 of Council's Tree Policy.
2. Where the tree is assessed as likely to provide habitat for threatened species, you will need to submit an assessment of significance pursuant to section 5A of the EP&A Act (*i.e.* a '7-part test').
3. In all instances the cost of such additional information must be borne by the applicant.

Performance criteria and acceptable solutions

Performance criteria and acceptable solutions for the BCA and BMA are set out in Table 3.

Table 3 - Performance criteria and acceptable solutions for conserving biodiversity in the BCA and BMA

Performance Criteria	**Acceptable Solutions**
P1 Wildlife friendly fencing is provided in the BMA/BCA to prevent disturbance whilst not impeding the movement of wildlife.	A1.1 Wildlife friendly fencing comprising posts and up to five (5) plain wires will be provided around the perimeter of the BMA/BCA, except for areas containing protected vegetation, as shown in Figure 4. A1.2 Wildlife friendly fencing comprising posts and up to two (2) plain wires will be provided along property boundaries within the BMA/BCA, except for areas containing protected vegetation, as shown in Figure 4. **Notes:** 1. Rigid rails may be used in place of the uppermost wire. 2. The maximum height of the uppermost wire/rail is 1.2 metres.

Performance Criteria	Acceptable Solutions
	3. The bottom wire/rail is at least 0.4 metres off the ground. 4. Trees are not to be removed and hand clearing only is permitted within one (1) metre of fencing. 5. Any clearing land of vegetation within the BCA/BMA (which would include clearing of vegetation for fencing) requires Council consent. If a development application is lodged to fence boundaries within these areas, Council may request a targeted survey to assess the impact on the EEC and potential threatened species habitat. (If a fence is constructed unlawfully, enforcement action will be taken). For further details refer to the CMP.
P2 Driveways within the BMA are located/aligned to have minimal impact on biodiversity values.	A2.1 A maximum of one driveway per dwelling is constructed through the BMA. A2.2 Driveway width in the BMA generally does not exceed three (3) metres unless wider access is required to comply with Planning for Bushfire Protection. A2.3 Each driveway through the BMA avoids the removal of or damage to, any threatened orchids or important habitat trees, such as hollow-bearing trees, Yellow-bellied Glider feed trees and/or Glossy Black-cockatoo feed trees. **Notes:** 1. Contact Council prior to submitting your development application to assist in determining the best location for the driveway/access road. 2. Refer to requirements for driveway design in Section 3.6. 3. Driveways are not permitted in the BCA.

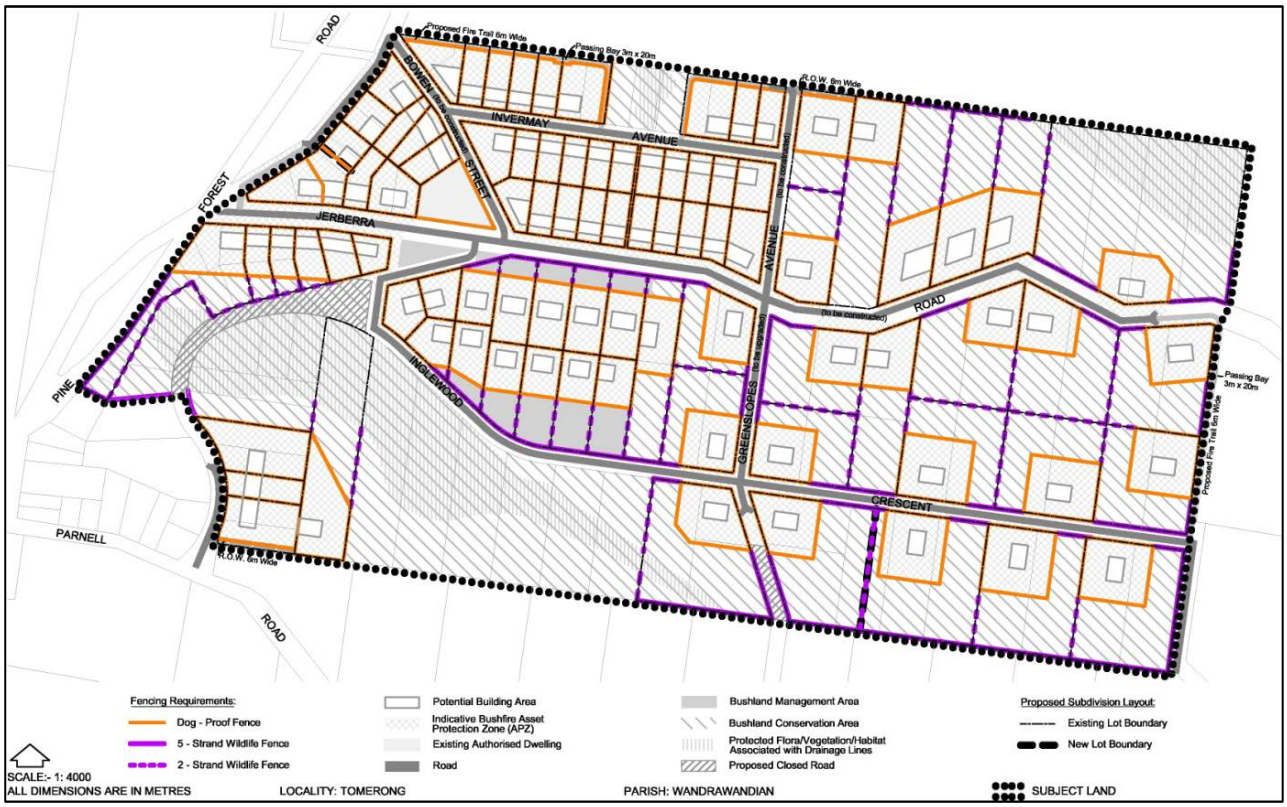

Figure 4 - Types and locations of acceptable fencing

3.2.6 Supporting information: Jerberra Estate Environmental Management Plan

The Jerberra Estate Environmental Management Plan provides additional information on ways to minimise impacts, both direct and indirect, from the development of land. It provides specific guidance on the following matters:

- Minimising the impact of development and associated land maintenance activities.
- Managing bushland on your property.
- Protection and removal of trees and other native vegetation.
- Feral animal control and keeping of domestic animals.
- Fencing.

3.3 Bushfire Risk Management

3.3.1 Introduction

Jerberra Estate is identified as Bushfire Prone Land on mapping endorsed by the NSW Rural Fire Service. The landuse planning controls for Jerberra Estate have been designed to enable bushfire risk to be managed in accordance with requirements under the NSW Rural Fire Service's Planning for Bushfire Protection (or equivalent) and the Australian Standard for building and construction in bushfire prone areas (AS3959) or equivalent. Refer to Figure 2.

The following bushfire protection measures need to be incorporated into development to minimise bushfire risk.

- Separating development from bushfire prone vegetation with asset protection zones (APZs) around dwellings.
- Designing and constructing dwellings and other structures to the required standard under AS3959.
- Providing access for fire fighting vehicles including perimeter fire trails in certain locations.
- Ensuring the development provides an adequate dedicated water supply for fire fighting purposes.
- Landscaping to limit the spread of fire.
- Emergency management arrangements for protection of property and/or evacuation.

These are all matters that need to be addressed at the development application stage. In some cases it is also essential that appropriate legal arrangements are in place to ensure that any such measures will be in place in perpetuity, such as where an APZ for a proposed dwelling overlaps onto an adjoining property.

Except where shown on Figure 2, APZs will not be considered on public land.

3.3.2 Objectives

O1 To ensure that any dwellings meet the relevant standards for building in bushfire prone areas.

O2 To ensure that appropriate asset protection zones (APZs) are provided and maintained to separate development from potential bush fire hazards.

O3 To ensure that all bush fire protection measures, including the maintenance of fuel loads in APZs and perimeter fire trails are able to be maintained in perpetuity.

O4 To ensure that appropriate vehicular access is provided to cater for fire fighting trucks and other emergency vehicles.

O5 To ensure that bushfire mitigation measures are undertaken in a manner consistent with the known environmental constraints.

3.3.3 Mandatory Controls

C1 No structures or APZs are to be located within the BCA or BMA.

C2 Perimeter fire trails are established as shown on Figure 2 before the lots in question are developed. The fire trails are to be constructed in accordance with the requirements of Planning for Bushfire Protection.

3.3.4 Performance criteria and acceptable solutions

Table 4 - Performance criteria and acceptable solutions for bushfire risk management

Performance Criteria	Acceptable Solutions
P1 Any dwellings and associated structures are located and constructed in accordance with the provisions of Planning for Bushfire Protection and AS3959 (or equivalent documents).	A1.1 All buildings will be located within the potential building areas identified in Figure 2 and are constructed to the appropriate standard under AS3959. Indicative construction standards are shown in Figure 2.
P2 Environmental attributes within Asset Protection Zones (APZs) are appropriately managed.	A2.1 Asset Protection Zones (APZs) will be established in accordance with Figure 2, and the APZ dimensions specified by Planning for Bushfire Protection. A2.2 Important habitat trees or threatened species within the APZs will be retained and managed in accordance with the RFS's standards for APZ management (available at http://www.rfs.nsw.gov.au). **Notes** 1. Reduction of fuel does not require removal of all vegetation. 2. Native trees and shrubs should be retained as clumps or islands and should maintain a covering of no more than 20% of the area.
P3 Bushfire Asset Protection Zones (APZs) will be maintained in perpetuity.	A3.1 APZs are to be identified on the title of each lot in accordance with Figure 2. A3.2 APZs are either contained within the property boundary or overlap and are mutually beneficial with APZs on adjoining properties.
P4 Appropriate access is provided for fire fighting vehicles.	A4.1 Fire fighting vehicles will be able to access the water supply dedicated for fire fighting purposes and be able to defend the rear of dwellings.
P5 Bushfire mitigation measures are to be implemented in accordance with Planning for Bushfire Protection.	A5.1 The development application is accompanied by a bushfire assessment which addresses all relevant aspects of Planning for Bushfire Protection including: • APZs • Construction standards & design • Access • Water supply • Emergency management arrangements • Landscaping

3.4 Vehicular Access for Lots 156, 166, 92 and 93

3.4.1 Introduction

Due to ecological constraints, some allotments do not have suitable direct access to the identified building area from a public road requiring the creation of a right-of-way or similar arrangement. This section only affects Lots 156, 166, 92 and 93.

Essentially, rights-of-way need to be created over Lots 166 and 92, to provide access for Lots 156 and 93 respectively. This will be a mutually beneficial arrangement because it will also reduce the bushfire risk for Lots 166 and 92.

3.4.2 Objectives

O1 To ensure that lawful and practical vehicular access is provided to all lots.

O2 To ensure that vehicular access has minimal environmental impact.

3.4.3 Performance criteria and acceptable solutions

Table 5 - Performance criteria and acceptable solutions for vehicle access on Lots 156,166, 92 and 93

Performance Criteria	Acceptable Solutions
P1 Legal and practical access is to be provided for Lot 156 and Lot 93 in a manner that minimises ecological impacts associated with its construction including clearing.	A1.1 In the following circumstances, access is provided for: • A six (6) metre wide right of way is to be established adjacent to the southern boundary of Lot 166 to provide access to Lot 156. • A six (6) metre wide right of way is to be established adjacent to the northern boundary of Lot 92 to provide access to Lot 93.

3.5 On-site Effluent Treatment and Application

3.5.1 Introduction

It is unlikely that Jerberra Estate will be serviced by reticulated sewerage in the foreseeable future. Consequently, it will be necessary for effluent wastewater to be treated and applied for on-site.

This section contains planning controls based on a Strategic On-site Effluent Disposal Assessment that was completed as part of the Jerberra Estate rezoning investigations. Development potential in Jerberra Estate is limited by the site and soil constraints. It is imperative that any development incorporates the site specific measures provided in this section.

A number of recommendations from a Sydney Catchment Authority (SCA) document titled “Designing and Installing On-Site Wastewater Systems” (SCA, 2012) have also been included. Although Jerberra Estate is not in the jurisdiction of the SCA, the recommendations that have been included from the above document are pertinent to on-site effluent management in Jerberra Estate.

3.5.2 Objectives

O1 To protect local watercourses and ground water systems and associated ecosystems from impacts associated with on-site effluent treatment and application.

O2 To minimise the risk to public health by minimising or eliminating contact with effluent, particularly by children, the elderly and immune-compromised members of our community; and carefully managing the application of effluent and its by-products.

O3 To prevent the deterioration of land and protect vegetation quality through soil structure degradation, salinisation, waterlogging, chemical contamination or soil erosion.

O4 Conserve water resources, reuse domestic wastewater (including nutrients, organic matter and water) where possible and within the constraints of other performance objectives.

O5 Protect community amenity by not unreasonably interfering with quality of life and by giving consideration to aesthetics, odours, dust, vectors and excessive noise which may impact on the local amenity.

Table 6 - Performance criteria and acceptable solutions for on-site effluent management

<table>
<tr><th>Performance Criteria</th><th>Acceptable Solutions</th></tr>
<tr><td>P1 Effluent is treated to at least a secondary standard before land application.</td><td>A1.1 Treatment is provided by aerated wastewater treatment system (AWTS) or equivalent.
A1.2 The sewage management facility is constructed in accordance with AS/NZS 1546.1 – “On-Site Domestic Wastewater Treatment Units”.
A1.3 The size of septic tanks and holding tanks complies with AS/NZS 1547 – “On-site domestic wastewater management”.</td></tr>
<tr><td>P2 Treated effluent is applied to an appropriately sized and located sub-surface application area to prevent adverse health and environmental impacts.</td><td>A2.1 Treated effluent is disposed of via subsurface pressurised irrigation and the on-site effluent application area should be no smaller than the following:
<table>
<tr><th>Number of Bedrooms[1]</th><th>Minimum Effluent Application Area (m^2)</th></tr>
<tr><td>3</td><td>583</td></tr>
<tr><td>4</td><td>777</td></tr>
<tr><td>5</td><td>972</td></tr>
</table>
[1] Including sunrooms, studies etc which could potentially be used as a bedroom.
A2.2 The effluent application area will be consistent with buffer distances and setbacks in DCP No. 78.</td></tr>
</table>

Performance Criteria	Acceptable Solutions
	A2.3 A reserve (secondary) area of 100% of the design area is identified upon the site for expansion and contingencies. The reserve area is protected from any development that would prevent its use in the future. **Notes:** 1. The designer of the effluent application areas must have appropriate professional indemnity insurance for the system design. 2. The system must be installed by contractor(s) licensed by NSW Fair Trading. That could be a licensed plumber or a licensed irrigation contractor (or both). 3. Reserve area is based upon hydraulic calculations. 4. On small allotments it may not be possible to provide a reserve area. The designer, in consultation with Council, has assessed the options available for the site and selected an appropriate design to provide security in the case of unsatisfactory performance. 5. Alternative subsurface application methods such as sand mounds or amended earth mounds will be considered provided these meet appropriate "NSW Environment and Health Guidelines" and subject to provision of an assessment and design details (prepared by an appropriately qualified professional) at development application stage. Any sand or amended earth mounds should be installed appropriately and in particular, the base of the mound should not extend below the 'B' horizon (subsoil).
P3 All components of the sub-surface application system are correctly sized and configured to provide for adequate effluent pumping and even distribution of effluent, effluent filtration, line flushing and maintenance of the effluent application system.	A3.1 The pump will adequately service the effluent application area. A3.2 The effluent application area will be split into two or more areas via a distribution or sequencing valve. Individual areas will typically be 250-300 m^2. A3.3 Irrigation system components are specifically designed for subsurface irrigation. Note: Standard irrigation kits provided with AWTS are generally designed for surface irrigation and are not suitable for sub-surface irrigation. A3.4 The distribution pipe will consist of a 25 mm uPVC or polyethylene pipe, buried at a depth of 300 mm. A3.5 The sub-surface drip line will be specifically designed for effluent. • Pressure-compensating drip line with emitters and laterals spaced at 600-800 mm. • A pressure regulator will be used if a wick system is proposed.

Performance Criteria	Acceptable Solutions
	A3.6 Adequate filtration will be provided before the distribution or sequencing valve. A filter flush will be fitted below the filter and the filter will be cleaned at least every three months. A3.7 Appropriate technology will be used to protect the drip line from root ingress. A3.8 Air vacuum valves, pressure reducing valves and non-return valves are incorporated into the design as appropriate. A3.9 The system will have the capacity to enable flushing to remove any suspended solids and organic growth that may accumulate. Flushed effluent must be directed back to the secondary treatment system or to an absorption trench.
P4 Devices are to be installed in conjunction with development to reduce water consumption and the quantity of waste-water being generated.	A4.1 Full water reduction fixtures are to be installed in each dwelling as an added factor of safety. **Notes:** 1. Full water reduction fixtures is defined as: 3/6 litre dual flush toilets, shower flow restrictors, aerator taps, "front load washing machines", and flow/pressure control valves on all water use outlets. 2. Additionally, full water reduction may be achieved by treatment of greywater and recycling for toilet flushing and washing machines.
P5 The soil profile in the effluent application area is to be improved to better enable on–site application.	A5.1 An organic soil mix conforming to AS4419 ("Soils for landscaping and garden use – Organic soil" or equivalent) will be spread over the effluent application area to a minimum depth of 100 mm. The imported soil will be spread uniformly over the effluent application area and can be blended into the upper 50 mm of native soil. A5.2 Gypsum will be applied to the effluent application area at a rate of 0.5 to 1 kg per m^2 prior to the addition of the organic soil mix.
P6 The effluent application area is planted with species suited to regular application of treated effluent before the system is commissioned.	A6.1 The effluent application area will be established with plant species listed in the NSW Environment and Health Protection Guidelines "On-site Sewage Management for Single Households". http://www.dlg.nsw.gov.au/DLG/Documents/information/onsite.pdf

P7	The effluent application area is protected from stormwater and groundwater ingress.	A7.1	A diversion drain will be provided immediately above the effluent application areas. Refer to Figure 5 - Cross section of upslope diversion drain (Source: SCA, 2012).

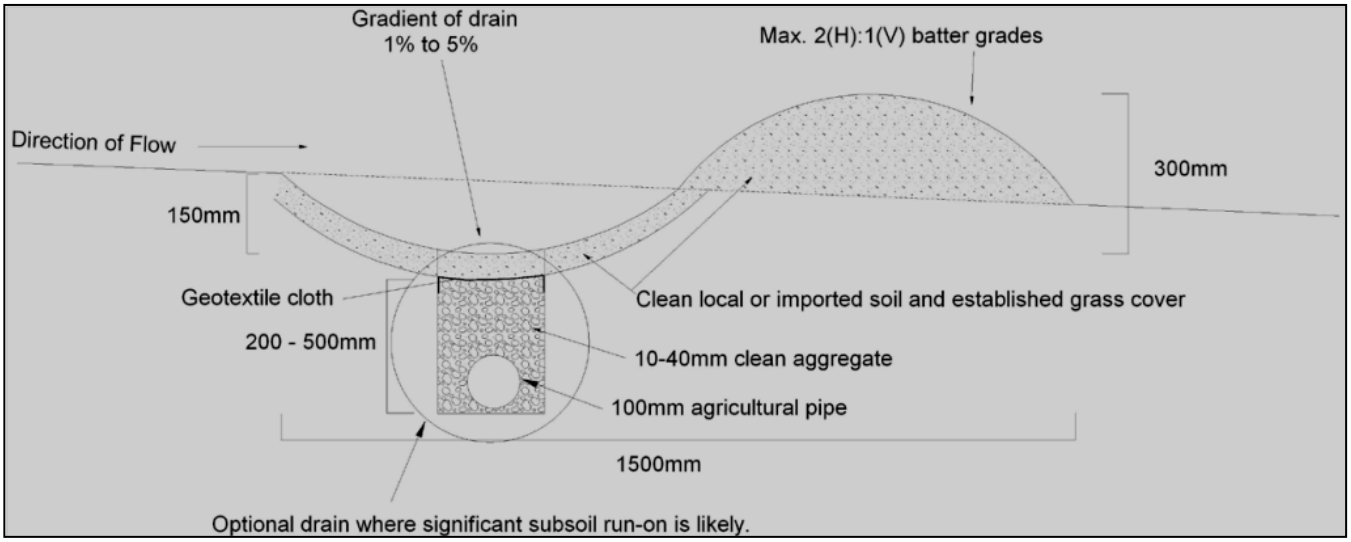

Figure 5 - Cross section of upslope diversion drain (Source: SCA, 2012)

3.5.3 Maintenance and inspection of on-site effluent management systems

Maintenance is essential for the satisfactory performance of aerated wastewater treatment systems (AWTS). A permit to install an AWTS will only be granted on the condition that the installation is inspected every three months or as specified by NSW Health's conditions of accreditation, by a Council approved servicing agent at the householder's expense. A report must be prepared after each inspection, with a copy forwarded to Council. A service tag or similar recording arrangement must be implemented and must be dated and signed or stamped at each visit.

Each three-monthly service must include a check on all mechanical, electrical and functioning parts of the AWTS as well as checks and maintenance on the application system.

The servicing agent must be engaged to carry out necessary repair work to the installation as well as the routine cleaning and maintenance activities at the householder's expense. Any installation faults revealed in the three-monthly inspection must be repaired promptly.

The following advice to landowners on maintenance of sub-surface irrigation systems is provided in the SCA's "Design and Installation of On-site Wastewater Systems" (SCA, 2012):

A subsurface irrigation system needs regular maintenance in addition to the quarterly service inspection. System owners are usually responsible for this operational maintenance, including:

- *regularly mowing the effluent irrigation area and disposing of grass clippings outside the effluent irrigation area.*

  [**Note:** Grass clippings should not be disposed of in the BMA, BCA or Orchid Management Areas.]

- *regularly cleaning some filters installed on irrigation systems as per the manufacturer's specifications. Where these filters are used system owners are responsible for regularly cleaning them*
- *back flushing irrigation lines to remove any biofilm build up and prevent blockages.*

3.5.4 Other DCPs you must check and other relevant information

DCP 78 – On-site Sewage Management

(http://shoalhaven.nsw.gov.au/MyCouncil/Policiesplansstrategies/Planningregister.aspx?display=dcp)

DCP 78 also includes information on inspection, monitoring and maintenance of on-site effluent management systems.

An excellent guide to designing and installing onsite wastewater systems has been prepared by the Sydney Catchment Authority and can be accessed from the SCA's website at: http://www.sca.nsw.gov.au

The following chapters are pertinent to the effluent requirements for Jerberra:
Section 4 - Aerated Wastewater Treatment Systems
Section 13 - Subsurface Irrigation

Another source of useful information is the document titled On-site Sewage Management for Single Households published by the Department of Local Government in 1998. It can be accessed from DLG's website at: http://www.dlg.nsw.gov.au

Relevant Australian Standards include: AS/NZS 1546.1 – "On-Site Domestic Wastewater Treatment Units" and AS/NZS 1547 – "On-site domestic wastewater management".

3.6 Stormwater Management

3.6.1 Introduction

The Jerberra Estate is located within the hydrologic catchment of Jervis Bay, flowing through Moona Moona Creek and an extensive coastal wetland system. The sensitive hydrologic environment requires consideration of stormwater management measures at both a local scale, when individual developments are undertaken, and also at a broader subdivision scale, generally when larger infrastructure works are undertaken, principally by Council in servicing the land.

3.6.2 Objectives

O1 To ensure that stormwater runoff from development does not adversely impact on the environment and shall maintain or improve water quality, and maintain the natural flow regime.

O2 To ensure compliance with Water Sensitive Urban Design principles including:

- protection of the natural hydrological and ecological processes;
- maintenance of the natural hydrological behaviour of catchments;
- protection of water quality of surface and ground waters; and,

- integration of water in to the landscape to enhance visual, social, cultural and ecological values.

3.6.3 Managing stormwater on individual lots

Performance criteria and acceptable solutions for management of stormwater on individual lots are set out in Table 7.

Table 7 - Performance criteria and acceptable solutions for managing stormwater on individual lots

Performance Criteria	Acceptable Solutions
P1.1 Stormwater is to be managed in order to avoid negative impacts on the environment and in accordance with Water Sensitive Urban Design (WSUD) principles. P1.2 Stormwater management is to be considered on a holistic level mindful of all aspects of a development including site disturbances, excavations, vehicular access and sediment and soil erosion controls.	A1.1 Impervious areas (i.e. roofs and paving) will not be directly connected to the roadside drainage network. Excess roof runoff will be directed to an on-site stormwater infiltration trench (refer to Figure 6) or bioretention system before being discharged to the roadside drainage network. **Note:** this is not part of the on-site effluent application system. A1.2 Rainwater collection tanks with a minimum capacity of 20,000 litres are provided for each dwelling. This is in addition to any water storage requirements needed to satisfy bush fire fighting requirements. A1.3 Stormwater infiltration trenches or bioretention systems will be provided in conjunction with the development of any building. Refer to Figure 6. The trench is to have: • a surface area of 5 % of the total roof area; • one (1) metre deep subsurface storage filled with gravel which has a void of ratio of 0.35:1; • 200 mm deep surface storage; • a minimum length to width ratio of 5:1; • a rectangular shape with the long axis parallel to the contour of the land; • a hard landscaped edge (such as treated pine sleepers or concrete edging) on the upper edge in to protect the integrity of the surface storage component; • a downslope edge that is level to evenly disperse overflows onto the adjacent ground surface. **Notes:** 1. The bed of the trench is to be level. 2. Top soil removed can be used for landscaping. 3. Clay subsoil not to be spread over the top soil.

Performance Criteria	Acceptable Solutions
P2.1 Driveways are designed and constructed to minimise impact on hydrology and water quality. P2.2 Details of the driveway are submitted with any dwelling applications (for new or existing) including: • Location of the driveway on the site plan. • A design for the driveway from the roadway seal to the property boundary providing both a plan and longitudinal section showing compliance with AS2890.1 – "Parking facilities - Off-street car parking" in particular, Appendix C Ground Clearance Templates.	A2.1 The driveway crossing is designed generally in accordance with Council's Engineering Design Specifications using: • A dish crossing where the swale is shallow enough. • A pipe, only where the depth and grade of the swale are suitable. **Notes:** 1. Longitudinal grade of the swale must be 3% to 4% to allow inlet and outlet erosion control works. 2. Inlet and outlet works must be no flatter than 1% unless suitably lined to control erosion where a grade of 0.5% will be permitted. 3. A swale longitudinal section will also be required where a pipe crossing is requested. 4. The pipe is to be sized for the 1% AEP storm flow (1:100 year ARI) for the swale at the location of the driveway. Calculations by a qualified drainage engineer (or suitably experienced surveyor) are to be provided with the application. 5. The design is to be approved by either the Subdivision Engineer or Development Engineer prior to any works within the road reserve being carried out. All construction works will require inspection prior to relevant stages of construction. 6. Compliance with AS2890.1 will not guarantee that the driveway crossing suits all makes and models of vehicles. A2.2 Within the property boundary, the driveway will: • Generally have a maximum width of three (3) metres, unless required to be wider to accommodate fire fighting vehicles. • Have a minimum cross fall of the driveway will be 3% to facilitate drainage and prevent longitudinal flow. • Be constructed with a minimum depth of 100 mm of compacted gravel (DGB 20 or equivalent) from an imported source. • Be aligned by grassed swales along its full length with a small sediment basin (located within the property boundary) prior to discharging into the road drainage system.
P3 Measures are employed during the construction phase to minimise soil erosion and protect water quality.	A3.1 An erosion and sediment control plan (ESCP) has been prepared in accordance with Managing Urban Stormwater; Soils and Construction (Landcom, 2004).

Performance Criteria	Acceptable Solutions
	A3.2 The site will be managed in accordance with the ESCP throughout the construction phase. A3.3 All stormwater devices will not be connected until after all development is complete. This will ensure that stormwater devices are not clogged prior to the finalisation of development

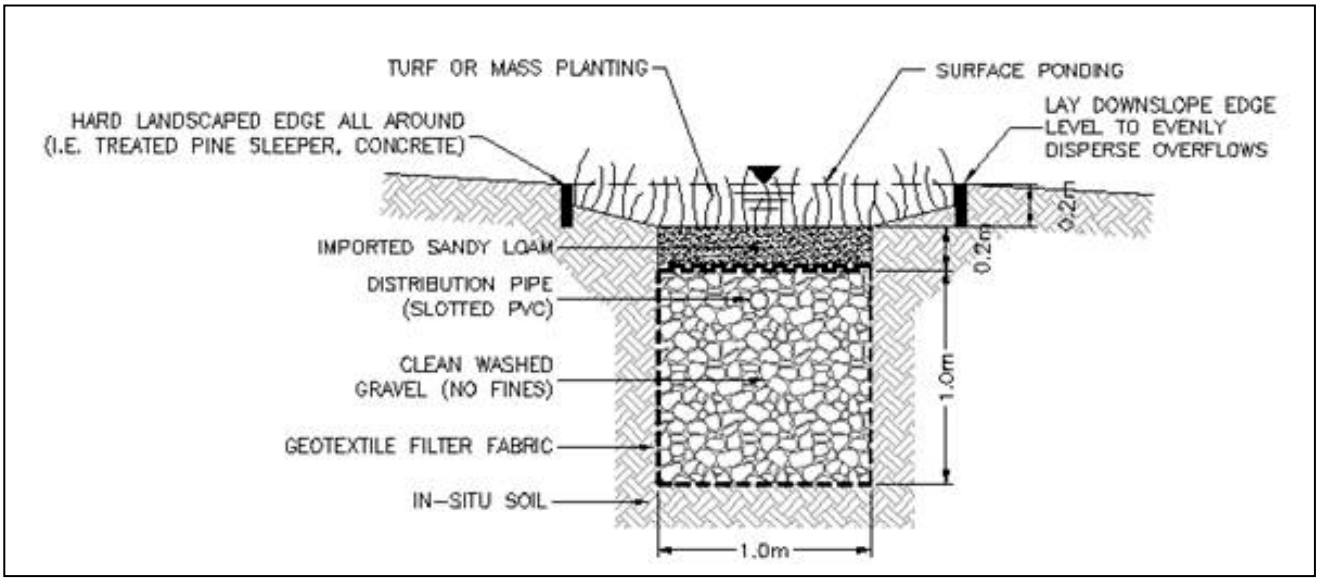

Figure 6 - Stormwater infiltration trench detail

3.6.4 Managing stormwater at subdivision scale

Performance criteria and acceptable solutions for management of stormwater in conjunction with the road network (*i.e*. at subdivision scale) are set out in Table 8.

Table 8 - Performance criteria and acceptable solutions for managing stormwater at subdivision scale

Performance Criteria	Acceptable Solutions
P1 Roads are to be designed, constructed and maintained in a manner that: • Avoids impact on water quality by minimising erosion and appropriately controlling sediment. • Minimises impact on flow.	A1.1 Roads are to be constructed using imported material of low-erodibility potential and shall be constructed in accordance with the following: o Longitudinal gradient not exceeding 10% where unsealed. o Clearing width for road construction shall be limited to a maximum width of 2 metres from the edge of any construction activity. o Road batter slopes shall not exceed 1 in 4. o Cut and fill shall be minimised to limit the duration and extent of disturbance and the need for stockpiling of material.

Performance Criteria	Acceptable Solutions
	o Vegetated swales in accordance with Figure 7 shall be incorporated on both sides of all public roads in accordance with the following: • minimum base width of 0.5 m; • maximum batter slopes of 1 in 4; • where the longitudinal gradient exceeds 4%, rock check dams shall be incorporated into the construction to help reduce velocities and potential for scour (refer to Figure 8); • shall be lined with biodegradable jute mat and seeded with drought tolerant native seeds which will not invade native plant communities in the downstream receiving environment; and • shall be maintained and regularly watered for at least 3 months following seeding until a good cover of grass is established. o Pipe culverts shall incorporate suitable outlet scour protection in accordance with the requirements of Managing Urban Stormwater: Soils and Constructions Volume 1 (Landcom, 2004). o All outlets, other than those discharging directly to roadside swales shall incorporate shallow sediment basins to maximise the retention of sediments. The sediment basins shall incorporate overflow weirs of sufficient length to uniformly disperse flows to the surrounding environment with a maximum flow velocity of 1.0 m/s for the 1 in 5 year ARI design storm event.
P2 Fire trails, where required, are to be designed and constructed and maintained in a manner that avoids impact on water quality by minimising erosion and appropriately controlling sediment.	A2.1 Fire trails are to constructed flush with the existing surface so as not to obstruct or divert the natural flow of surface water. Suitable rock material shall be incorporated into the top 200 mm of soil to provide all weather access whilst allowing a groundcover or appropriate non-invasive species to be established and maintained.
P3 In the construction of roads and fire trails, adequate provision is to be made for measures during construction to ensure that the land form is stabilised and erosion is controlled.	A3.1 An Erosion and Sediment Control Plan (ESCP) is to be prepared prior to the commencement of construction. The Erosion and Sediment Control Plan must be designed, installed and maintained in accordance with requirements of Managing Urban Stormwater: Soils & Constructions Volume 1 (Landcom, 2004) Vol 1&2c.

Performance Criteria	Acceptable Solutions
	A3.2 Temporary structures including drainage structures and sediment control devices must be designed for a 5 year ARI design storm event. A3.3 Permanent drainage works are to be installed as early as practicable in the construction sequence.

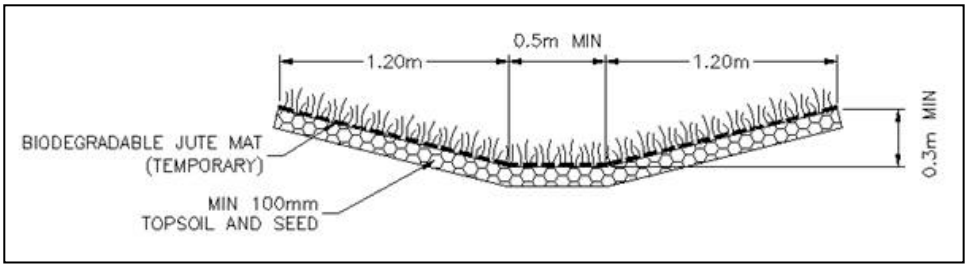

Figure 7 - Typical vegetated roadside swale section

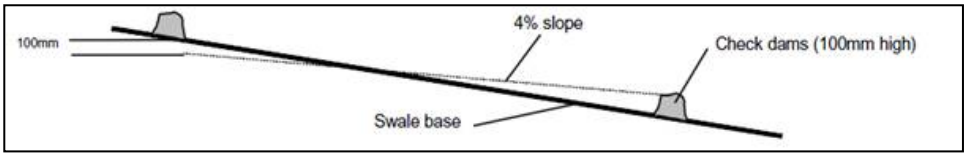

Figure 8 - Location of check dams (Source SEQ WSUD Technical Guidelines)

3.6.5 Other DCPs you must check

Draft Proposed Stormwater Controls

3.7 Building Envelopes and Setbacks

3.7.1 Objectives

O1 To ensure buildings are appropriately sited in order to:

- Manage bushfire risk in accordance with Planning for Bushfire Protection requirements;
- Achieve biodiversity outcomes;
- Preserve the bushland character, local amenity and maximise privacy for individual dwellings; and,
- Minimise risks associated with on site effluent application.

3.7.2 Controls

C1 Buildings and associated asset protection zones are located outside of the Bushland Management Area (BMA) and Bushland Conservation Area (BCA) and in accordance with Planning for Bushfire Protection requirements.

3.7.3 Performance criteria and acceptable solutions

Table 9 - Performance criteria and acceptable solutions for locations of dwellings and ancillary structures

Performance Criteria	Acceptable Solutions
P1 The location and position of all structures: • maintains privacy and amenity of adjoining and nearby dwellings; and • has minimal impact on biodiversity.	A1.1 The dwelling and associated structures are located within the Potential Building Area. Relevant dimensions are shown on Figure 9 {under preparation}. A1.2 Unless otherwise shown on Figure 9 minimum building setbacks from walls of any buildings to side boundaries will be: • 1.5 metres for properties less than 5,000 m^2 • 3.0 metres for properties greater than 5,000 m^2. **Notes:** Any alternative building location will need to demonstrate that the variation: 1. is consistent with the requirements of Planning for Bushfire Protection; 2. better enables important habitat trees and threatened species within the Potential Building Area and/or APZ to be preserved; 3. does not require any removal of vegetation within the BCA/BMA; 4. is consistent with DCP 91 (Single Dwelling and Ancillary Structures – Minimum Building Requirements).
P2 The size and positioning of the dwelling and associated structures provides adequate outdoor use and ensures there is sufficient area for on-site effluent application.	A2.1 The site plan demonstrates that the minimum area required for effluent application (refer to Table 6) is provided and provision is made for all necessary buffers, as well as the outdoor recreation needs of the occupants.

3.7.4 Other DCPs you must check

DCP 91 – Single Dwelling and Ancillary Structures – Minimum Building Requirements

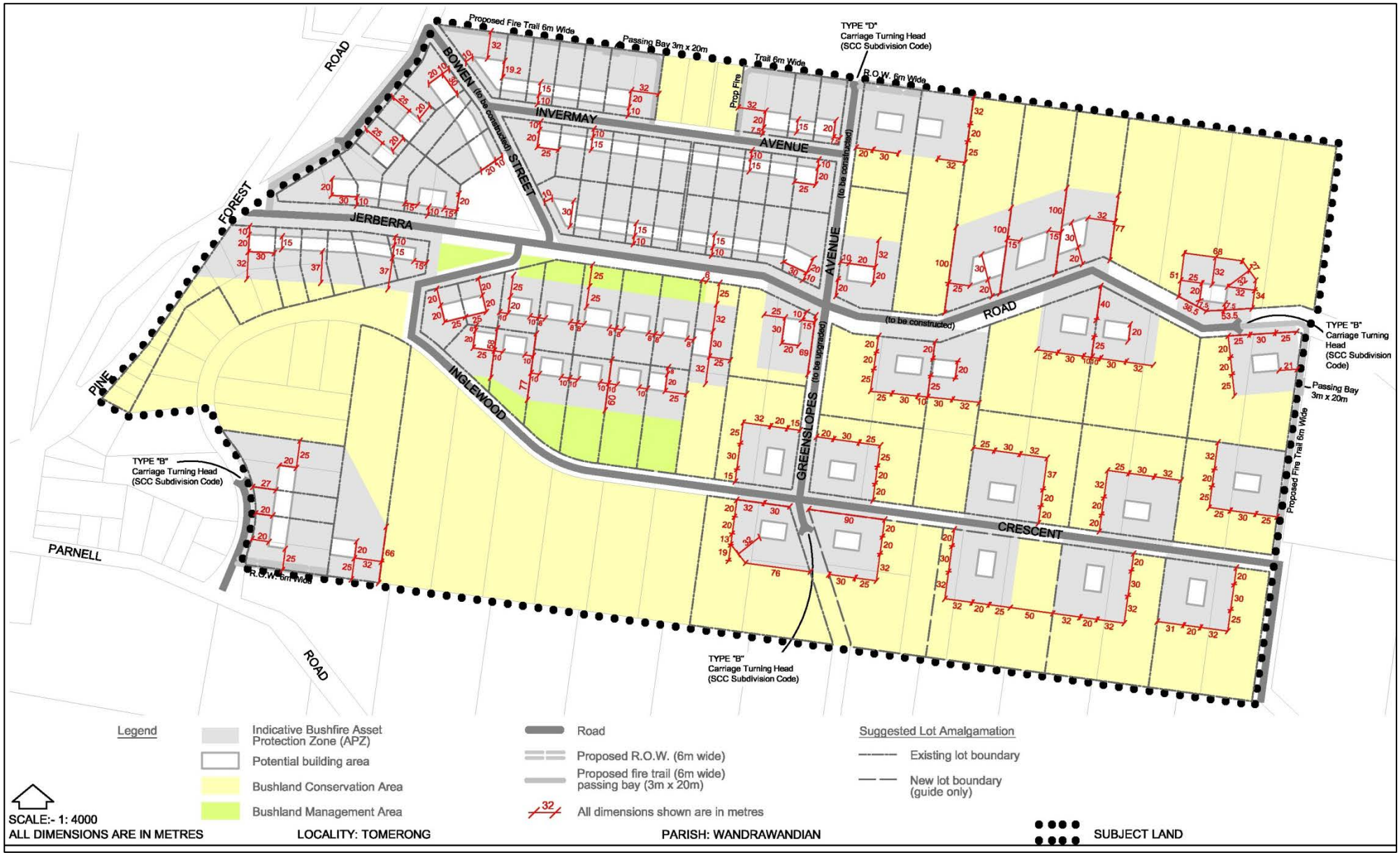

Figure 9 - Potential building and conservation area dimensions (under preparation)

4 Other legislation or policies you may need to check

Other legislation that may have implications for your proposal includes:

Title	Issue	Link to Legislation
NSW Legislation		
Environmental Planning and Assessment Act 1979	General environmental planning requirements	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+203+1979+cd+0+N
National Parks and Wildlife Act 1974	Aboriginal cultural heritage	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+80+1974+cd+0+N
Native Vegetation Act 2003	Protection of native vegetation	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+103+2003+cd+0+N
Rural Fires Act 1997	Bushfire protection and mitigation	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+65+1997+cd+0+N
State Emergency and Rescue Management Act 1989	Definition of emergency in relation to vegetation clearing	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+164+1989+cd+0+N
Threatened Species Conservation Act 1995	Protection of biological diversity and threatened species preservation	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+101+1995+cd+0+N
Water Management Act 2003	Protection and management of water and water quality	http://www.legislation.nsw.gov.au/maintop/view/inforce/act+92+2000+cd+0+N
State Environmental Planning Policies		
State Environmental Planning Policy No 14—Coastal Wetlands	Preservation and protection of coastal wetlands - water quality	http://www.legislation.nsw.gov.au/maintop/view/inforce/epi+532+1985+cd+0+N
Jervis Bay Regional Environmental Plan 1996	Protection of the natural and cultural values of Jervis Bay	http://www.legislation.nsw.gov.au/maintop/view/inforce/epi+13+1997+cd+0+N
Local Environmental Plans		
Shoalhaven LEP (Jerberra) 2013	LEP requirements associated with the Jerberra Estate	TO INSERT WHEN LEP COMMENCES
Other Policies		
Planning for Bushfire Protection	Bushfire mitigation and protection	http://www.rfs.nsw.gov.au/file_system/attachments/State08/Attachment_20070301_0A17F845.pdf
Australian Standards		
AS1547		
AS1546		
AS3959		

It is noted that legislative changes are made from time to time, and to that end, New South Wales legislation can be found at http://www.legislation.nsw.gov.au/.

Schedule 1 - Development Opportunities for Existing Lots

Legal Ability for Development of a Dwelling

The planning controls for Jerberra Estate have been designed to benefit as many lots as possible whilst protecting the environment and managing risks associated with bushfire and effluent disposal. Not all lots in the original subdivision plan are able to be developed. In many cases however, some development will be possible if lots are amalgamated and/or subdivided.

It is critical to ensure that the development opportunities identified in Shoalhaven LEP (Jerberra) 2013 are fully realised. Compliance with the minimum lot size requirement can be achieved by implementing the proposed subdivision layout shown in **Figure 2** of the Jerberra DCP. Any variation from the proposed subdivision layout shown in this DCP must ensure that no allotments are sterilised or orphaned.

How to use this table

Table 1 lists all existing allotments covered by the Jerberra DCP in numerical order and identifies whether the land has separate legal ability for a dwelling-house to be approved.

If a dwelling can potentially be approved you are able to lodge a development application.

In a number of cases, a dwelling may be able to be approved if two or more lots are amalgamated. Table 1 identifies those lots which are recommended for amalgamation in order to achieve the equity objectives and environmental constraints of the DCP.

Schedule 2 provides a range of options to assist you in your considerations in the development of land requiring amalgamation.

Table 1 - Development opportunities for existing lots within Jerberra Estate

Property Description	Street	Can a dwelling be approved?		Suggested amalgamation, if relevant	Areas to be identified on title of developable properties				Additional issues that need to be resolved prior to development
		On its own	If combined with other lots		Asset Protection Zone (APZ) includes effluent application area	Bushland Cons'n Area (BCA)	Bushland Manag't Area (BMA)	Orchid Manag't Area (OMA)	
Lots 1-11 DP 1088096	Pine Forest Rd	X	✓	Amalgamate Lots 1-11 in DP 1088096 and Lots 23, 31 and 32 in DP 11629.	✓	✓			Identification of APZ on title of adjoining land as per DCP.
Lot 23 DP 11629	Jerberra Rd	X	✓	Amalgamate Lots 1-11 in DP 1088096 and Lots 23, 31 and 32 in DP 11629.	✓				Identification of APZ on title of adjoining land as per DCP.
Lot 24 DP 11629	Jerberra Rd	X	✓	Amalgamate Lots 24 and 30	✓				Identification of APZ on title of adjoining land as per DCP.
Lot 25 DP 11629	Jerberra Rd	X	✓	Amalgamate Lots 25 and 29	✓				Identification of APZ on title of adjoining land as per DCP.
Lot 26 DP 11629	Jerberra Rd	✓			✓	✓			Identification of APZ on title of adjoining land as per DCP.
Lot 27 DP 11629	Jerberra Rd	✓			✓	✓			Identification of APZ on title of adjoining land as per DCP.
Lot 28 DP 11629	Jerberra Rd	✓			✓				Identification of APZ on title of adjoining land as per DCP.
Lot 29 DP 11629	Inglewood Cres	X	✓	Amalgamate Lots 25 and 29	✓	✓			Identification of APZ on title of adjoining land as per DCP.
Lot 30 DP 11629	Inglewood Cres	X	✓	Amalgamate Lots 24 and 30	✓	✓			Identification of APZ on title of adjoining land as per DCP.
Lot 31 DP 11629	Inglewood Cres	X	✓	Amalgamate Lots 1-11 in DP 1088096 and Lots 23, 31 and 32 in DP 11629.	✓	✓			Identification of APZ on title of adjoining land as per DCP.
Lot 32 DP 11629	Inglewood Cres	X	✓	Amalgamate Lots 1-11 in DP 1088096 and Lots 23, 31 and 32 in DP 11629.	✓	✓			Identification of APZ on title of adjoining land as per DCP.
Lot 33 DP 11629	Inglewood Cres	X	X	Minimum lot size remains at 40 ha.					Refer to options outlined in the CMP.
Lot 34 DP 11629	Inglewood Cres	X	X	Minimum lot size remains at 40 ha.					Refer to options outlined in the CMP.
Lot 35 DP 11629	Inglewood Cres	X	X	Minimum lot size remains at 40 ha.					Refer to options outlined in the CMP.
Lot 36 DP 11629	Inglewood Cres	X	X	Minimum lot size remains at 40 ha.					Refer to options outlined in the CMP.
Lot 39 DP 11629	Pine Forest Rd	X	✓	Amalgamate Lots 39 and 40	✓				Identification of APZ on title of adjoining land as per DCP.
Lot 40 DP 11629	Pine Forest Rd	X	✓	Amalgamate Lots 39 and 40	✓				Identification of APZ on title of adjoining land as per DCP.
Lot 41 DP 11629	Pine Forest Rd	X	✓	Pool Lots 41, 42 and 43 and subdivide into two lots at least 2,000 m^2.	✓				Identification of APZ on title of adjoining land as per DCP.
Lot 42 DP 11629	Pine Forest Rd	X	✓	Pool Lots 41, 42 and 43 and subdivide into two lots at least 2,000 m^2.	✓				Identification of APZ on title of adjoining land as per DCP.
Lot 43 DP 11629	Pine Forest Rd	X	✓	Pool Lots 41, 42 and 43 and subdivide into two lots at least 2,000 m^2.	✓				Identification of APZ on title of adjoining land as per DCP.
Lot 44 DP 11629	Pine Forest Rd	X	✓	Amalgamate Lots 44 and 45	✓				Identification of APZ on title of adjoining land as per DCP.

Property Description	Street	Can a dwelling be approved?		Suggested amalgamation, if relevant	Areas to be identified on title of developable properties				Additional issues that need to be resolved prior to development
		On its own	If combined with other lots		Asset Protection Zone (APZ) includes effluent application area	Bushland Cons'n Area (BCA)	Bushland Manag't Area (BMA)	Orchid Manag't Area (OMA)	
Lot 45 DP 11629	Pine Forest Rd	X	✓	Amalgamate Lots 44 and 45	✓				Identification of APZ on title of adjoining land as per DCP.
Lot 46 DP 11629	Pine Forest Rd	✓			✓				Identification of APZ on title of adjoining land as per DCP.
Lot 47 DP 11629	Bowen St	✓			✓				Identification of APZ on title of adjoining land as per DCP.
Lot 48 DP 11629	Bowen St	✓			✓				Identification of APZ on title of adjoining land as per DCP.
Lot 49 DP 11629	Bowen St	✓			✓				Identification of APZ on title of adjoining land as per DCP.
Lot 52 DP 11629	Jerberra Rd	X	✓	Amalgamate Lots 52 and 53	✓				Identification of APZ on title of adjoining land as per DCP.
Lot 53 DP 11629	Jerberra Rd	X	✓	Amalgamate Lots 52 and 53	✓				Identification of APZ on title of adjoining land as per DCP.
Lot 54 DP 11629	Jerberra Rd	✓			✓				Identification of APZ on title of adjoining land as per DCP.
Lot 55 DP 11629	Bowen St	X	✓	Amalgamate Lots 55 and 56.	✓				Identification of APZ on title of adjoining land as per DCP.A firetrail will need to be established over Lots 55-62 as per the DCP.
Lot 56 DP 11629	Invermay Ave	X	✓	Amalgamate Lots 55 and 56.	✓				Identification of APZ on title of adjoining land as per DCP.A firetrail will need to be established over Lots 55-62 as per the DCP.
Lot 57 DP 11629	Invermay Ave	✓			✓				Identification of APZ on title of adjoining land as per DCP. A firetrail will need to be established over Lots 55-62 as per the DCP.
Lot 58 DP 11629	Invermay Ave	✓			✓				Identification of APZ on title of adjoining land as per DCP. A firetrail will need to be established over Lots 55-62 as per the DCP.
Lot 59 DP 11629	Invermay Ave	✓			✓				Identification of APZ on title of adjoining land as per DCP. A firetrail will need to be established over Lots 55-62 as per the DCP.
Lot 60 DP 11629	Invermay Ave	✓			✓				Identification of APZ on title of adjoining land as per DCP. A firetrail will need to be established over Lots 55-62 as per the DCP.
Lot 61 DP 11629	Invermay Ave	X	✓	Amalgamate Lots 61 and 62.	✓				Identification of APZ on title of adjoining land as per DCP. A firetrail will need to be established over Lots 55-62 as per the DCP.
Lot 62 DP 11629	Invermay Ave	X	✓	Amalgamate Lots 61 and 62.	✓				Identification of APZ on title of adjoining land as per DCP. A firetrail will need to be established over Lots 55-62 as per the DCP.
Lot 63 DP 11629	Invermay Ave	X	X	Minimum lot size remains at 40 ha.					Refer to options outlined in the CMP.
Lot 64 DP 11629	Invermay Ave	X	X	Minimum lot size remains at 40 ha.					Refer to options outlined in the CMP.
Lot 65 DP 11629	Invermay Ave	X	X	Minimum lot size remains at 40 ha.					Refer to options outlined in the CMP.
Lot 66 DP 11629	Invermay Ave	X	✓	Amalgamate Lots 66 and 67.	✓				Identification of APZ on title of adjoining land as per DCP. A firetrail will need to be established over Lots 66-69 as per the DCP.

Property Description	Street	Can a dwelling be approved?		Suggested amalgamation, if relevant	Areas to be identified on title of developable properties				Additional issues that need to be resolved prior to development
		On its own	If combined with other lots		Asset Protection Zone (APZ) includes effluent application area	Bushland Cons'n Area (BCA)	Bushland Manag't Area (BMA)	Orchid Manag't Area (OMA)	
Lot 67 DP 11629	Invermay Ave	X	✓	Amalgamate Lots 66 and 67.	✓			✓	Identification of APZ on title of adjoining land as per DCP. A firetrail will need to be established over Lots 66-69 as per the DCP.
Lot 68 DP 11629	Invermay Ave	✓			✓			✓	Identification of APZ on title of adjoining land as per DCP. A firetrail will need to be established over Lots 66-69 as per the DCP.
Lot 69 DP 11629	Invermay Ave	✓			✓				Identification of APZ on title of adjoining land as per DCP. A firetrail will need to be established over Lots 66-69 as per the DCP.
Lot 70 DP 11629	Invermay Ave	✓			✓				Identification of APZ on title of adjoining land as per DCP.
Lot 71 DP 11629	Invermay Ave	✓			✓				Identification of APZ on title of adjoining land as per DCP.
Lot 72 DP 11629	Invermay Ave	✓			✓			✓	Identification of APZ on title of adjoining land as per DCP.
Lot 73 DP 11629	Invermay Ave	✓			✓				Identification of APZ on title of adjoining land as per DCP.
Lot 74 DP 11629	Invermay Ave	✓			✓				Identification of APZ on title of adjoining land as per DCP.
Lot 75 DP 11629	Invermay Ave	✓			✓				Identification of APZ on title of adjoining land as per DCP.
Lot 76 DP 11629	Invermay Ave	✓			✓				Identification of APZ on title of adjoining land as per DCP.
Lot 77 DP 11629	Invermay Ave	✓			✓				Identification of APZ on title of adjoining land as per DCP.
Lot 78 DP 11629	Invermay Ave	✓			✓				Identification of APZ on title of adjoining land as per DCP.
Lot 79 DP 11629	Invermay Ave	✓			✓				Identification of APZ on title of adjoining land as per DCP.
Lot 80 DP 11629	Invermay Ave	✓			✓				Identification of APZ on title of adjoining land as per DCP.
Lot 81 DP 11629	Jerberra Rd	✓			✓				Identification of APZ on title of adjoining land as per DCP.
Lot 82 DP 11629	Jerberra Rd	✓			✓				Identification of APZ on title of adjoining land as per DCP.
Lot 83 DP 11629	Jerberra Rd	✓			✓				Identification of APZ on title of adjoining land as per DCP.
Lot 84 DP 11629	Jerberra Rd	✓			✓				Identification of APZ on title of adjoining land as per DCP.
Lot 85 DP 11629	Jerberra Rd	✓			✓				Identification of APZ on title of adjoining land as per DCP.
Lot 86 DP 11629	Jerberra Rd	✓			✓				Identification of APZ on title of adjoining land as per DCP.
Lot 87 DP 11629	Jerberra Rd	✓			✓				Identification of APZ on title of adjoining land as per DCP.
Lot 88 DP 11629	Jerberra Rd	✓			✓				Identification of APZ on title of adjoining land as per DCP.
Lot 89 DP 11629	Jerberra Rd	✓			✓				Identification of APZ on title of adjoining land as per DCP.
Lot 90 DP 11629	Jerberra Rd	✓			✓				Identification of APZ on title of adjoining land as per DCP.
Lot 91 DP 11629	Jerberra Rd	✓			✓	✓			

Property Description	Street	Can a dwelling be approved?		Suggested amalgamation, if relevant	Areas to be identified on title of developable properties				Additional issues that need to be resolved prior to development
		On its own	If combined with other lots		Asset Protection Zone (APZ) includes effluent application area	Bushland Cons'n Area (BCA)	Bushland Manag't Area (BMA)	Orchid Manag't Area (OMA)	
Lot 92 DP 11629	Greenslopes Ave	✓			✓	✓			Identification of APZ and right of way on title of Lot 92 as per DCP.
Lot 93 DP 11629	Jerberra Rd	✓			✓	✓			Identification of APZ and right of way on title of Lot 92 as per DCP.
Lot 94 DP 11629	Jerberra Rd	✓			✓	✓			Identification of APZ on title of adjoining land as per DCP.
Lot 95 DP 11629	Jerberra Rd	✓			✓	✓			Identification of APZ on title of adjoining land as per DCP.
Lot 96 DP 11629	Jerberra Rd	✓			✓	✓			Identification of APZ on title of adjoining land as per DCP.
Lot 97 DP 11629	Jerberra Rd	X	✓	Amalgamate Lots 97, 98, 99 and 100		✓			
Lot 98 DP 11629	Jerberra Rd	X	✓	Amalgamate Lots 97, 98, 99 and 100	✓	✓			
Lot 99 DP 11629	Jerberra Rd	X	✓	Amalgamate Lots 97, 98, 99 and 100	✓	✓			
Lot 100 DP 11629	Jerberra Rd	X	✓	Amalgamate Lots 97, 98, 99 and 100		✓			
Lot 101 DP 11629	Jerberra Rd	X	✓	Amalgamate Lots 101 and 102.	✓	✓			
Lot 102 DP 11629	Jerberra Rd	X	✓	Amalgamate Lots 101 and 102.	✓	✓			
Lot 103 DP 11629	Jerberra Rd	X	✓	Amalgamate Lots 103 and 104.	✓	✓			
Lot 104 DP 11629	Jerberra Rd	X	✓	Amalgamate Lots 103 and 104.	✓	✓		To be surveyed	Surveys for *Pterostylis ventricosa* to be undertaken at owners' cost.
Lot 105 DP 11629	Jerberra Rd	X	✓	Amalgamate Lots 105 and 106.	✓	✓			
Lot 106 DP 11629	Jerberra Rd	X	✓	Amalgamate Lots 105 and 106.	✓	✓			
Lot 107 DP 11629	Jerberra Rd	X	✓	Amalgamate Lots 107 and 131.	✓	✓			
Lot 108 DP 11629	Jerberra Rd	X	✓	Amalgamate Lots 108 and 109.	✓	✓			
Lot 109 DP 11629	Jerberra Rd	X	✓	Amalgamate Lots 108 and 109.	✓	✓			
Lot 110 DP 11629	Jerberra Rd	X	✓	Amalgamate Lots 110 and 111.	✓	✓			
Lot 111 DP 11629	Jerberra Rd	X	✓	Amalgamate Lots 110 and 111.	✓	✓			
Lot 112 DP 11629	Jerberra Rd	X	✓	Amalgamate Lots 112 and 126.	✓	✓	✓		
Lot 113 DP 11629	Jerberra Rd	✓			✓		✓		
Lot 114 DP 11629	Jerberra Rd	✓			✓		✓		
Lot 115 DP 11629	Jerberra Rd	✓			✓		✓		
Lot 116 DP 11629	Jerberra Rd	✓			✓		✓		
Lot 117 DP 11629	Glen St	✓			✓		✓		
Lot 118 DP 11629	Glen St	✓			✓				

Property Description	Street	Can a dwelling be approved?		Suggested amalgamation, if relevant	Areas to be identified on title of developable properties				Additional issues that need to be resolved prior to development
		On its own	If combined with other lots		Asset Protection Zone (APZ) includes effluent application area	Bushland Cons'n Area (BCA)	Bushland Manag't Area (BMA)	Orchid Manag't Area (OMA)	
Lot 119 DP 11629	Glen St	✓			✓				
Lot 120 DP 11629	Inglewood Cres	✓			✓		✓		
Lot 121 DP 11629	Inglewood Cres	✓			✓		✓		
Lot 122 DP 11629	Inglewood Cres	✓			✓		✓		
Lot 123 DP 11629	Inglewood Cres	✓			✓		✓		
Lot 124 DP 11629	Inglewood Cres	✓			✓		✓		
Lot 125 DP 11629	Inglewood Cres	✓			✓		✓		
Lot 126 DP 11629	Inglewood Cres	X	✓	Amalgamate Lots 112 and 126.	✓	✓			
Lot 127 DP 11629	Inglewood Cres	X	✓	Amalgamate Lots 127 and 128.	✓	✓			
Lot 128 DP 11629	Inglewood Cres	X	✓	Amalgamate Lots 127 and 128.	✓	✓			
Lot 129 DP 11629	Inglewood Cres	X	✓	Amalgamate Lots 129 and 130.	✓	✓			
Lot 130 DP 11629	Inglewood Cres	X	✓	Amalgamate Lots 129 and 130.	✓	✓			
Lot 131 DP 11629	Inglewood Cres	X	✓	Amalgamate Lots 107 and 131.		✓			
Lot 132 DP 11629	Inglewood Cres	X	✓	Amalgamate Lots 132 and 133.	✓	✓		To be surveyed	Surveys for *Pterostylis ventricosa* to be undertaken at owners' cost.
Lot 133 DP 11629	Inglewood Cres	X	✓	Amalgamate Lots 132 and 133.	✓	✓		To be surveyed	Surveys for *Pterostylis ventricosa* to be undertaken at owners' cost.
Lot 134 DP 11629	Inglewood Cres	X	✓	Amalgamate Lots 134 and 135.	✓	✓			
Lot 135 DP 11629	Inglewood Cres	X	✓	Amalgamate Lots 134 and 135.	✓	✓			
Lot 136 DP 11629	Inglewood Cres	X	✓	Amalgamate Lots 136 and 137.	✓	✓			
Lot 137 DP 11629	Inglewood Cres	X	✓	Amalgamate Lots 136 and 137.	✓	✓			
Lot 138 DP 11629	Inglewood Cres	X	✓	Amalgamate Lots 138 and 139.	✓	✓			
Lot 139 DP 11629	Inglewood Cres	X	✓	Amalgamate Lots 138 and 139.	✓	✓			
Lot 140 DP 11629	Inglewood Cres	X	✓	Amalgamate Lots 140 and 141.	✓	✓			
Lot 141 DP 11629	Inglewood Cres	X	✓	Amalgamate Lots 140 and 141.	✓	✓			
Lot 142 DP 11629	Inglewood Cres	X	✓	Pool Lots 142, 143, 144, 145 and 146 and subdivide into two lots at least 2 ha.	✓	✓			
Lot 143 DP 11629	Inglewood Cres	X	✓	Pool Lots 142, 143, 144, 145 and 146 and subdivide into two lots at least 2 ha.	✓	✓			

Property Description	Street	Can a dwelling be approved?		Suggested amalgamation, if relevant	Areas to be identified on title of developable properties				Additional issues that need to be resolved prior to development
		On its own	If combined with other lots		Asset Protection Zone (APZ) includes effluent application area	Bushland Cons'n Area (BCA)	Bushland Manag't Area (BMA)	Orchid Manag't Area (OMA)	
Lot 144 DP 11629	Inglewood Cres	X	✓	Pool Lots 142, 143, 144, 145 and 146 and subdivide into two lots at least 2 ha.	✓	✓			
Lot 145 DP 11629	Greenslopes Ave	X	✓	Pool Lots 142, 143, 144, 145 and 146 and subdivide into two lots at least 2 ha.	✓	✓			
Lot 146 DP 11629	Inglewood Cres	X	✓	Pool Lots 142, 143, 144, 145 and 146 and subdivide into two lots at least 2 ha.	✓	✓			
Lot 147 DP 11629	Greenslopes Ave	X	✓	Amalgamate Lots 147, 148 and 149.	✓	✓		To be surveyed	Surveys for *Pterostylis ventricosa* to be undertaken at owners' cost.
Lot 148 DP 11629	Greenslopes Ave	X	✓	Amalagmate Lots 147, 148 and 149.	✓	✓			
Lot 149 DP 11629	Inglewood Cres	X	✓	Amalagmate Lots 147, 148 and 149.	✓	✓			
Lot 150 DP 11629	Inglewood Cres	X		Minimum lot size remains at 40 ha.					Refer to options outlined in the CMP.
Lot 151 DP 11629	Inglewood Cres	X		Minimum lot size remains at 40 ha.					Refer to options outlined in the CMP.
Lot 152 DP 11629	Inglewood Cres	X		Minimum lot size remains at 40 ha.					Refer to options outlined in the CMP.
Lot 153 DP 11629	Inglewood Cres	X		Minimum lot size remains at 40 ha.					Refer to options outlined in the CMP.
Lot 154 DP 11629	Inglewood Cres	X		Minimum lot size remains at 40 ha.					Refer to options outlined in the CMP.
Lot 155 DP 11629	Inglewood Cres	X		Minimum lot size remains at 40 ha.					Refer to options outlined in the CMP.
Lot 156 DP 11629	Inglewood Cres	✓			✓	✓			
Lot 157 DP 11629	Inglewood Cres	X		Minimum lot size remains at 40 ha.					Refer to options outlined in the CMP.
Lot 158 DP 11629	Inglewood Cres	X		Minimum lot size remains at 40 ha.					Refer to options outlined in the CMP.
Lot 159 DP 11629	Inglewood Cres	X		Minimum lot size remains at 40 ha.					Refer to options outlined in the CMP.
Lot 160 DP 11629	Inglewood Cres	X		Minimum lot size remains at 40 ha.					Refer to options outlined in the CMP.
Lot 161 DP 11629	Inglewood Cres	X		Minimum lot size remains at 40 ha.					Refer to options outlined in the CMP.
Lot 162 DP 11629	Inglewood Cres	X	✓	Amalagmate Lots 162 and 163.	✓			To be surveyed	Surveys for *Pterostylis ventricosa* to be undertaken at owners' cost.
Lot 163 DP 11629	Inglewood Cres	X	✓	Amalagmate Lots 162 and 163.	✓			To be surveyed	Surveys for *Pterostylis ventricosa* to be undertaken at owners' cost.
Lot 164 DP 11629	Inglewood Cres	✓			✓				
Lot 165 DP 11629	Inglewood Cres	X	✓	Amalagmate Lots 165 and 166.	✓				
Lot 166 DP 11629	Inglewood Cres	X	✓	Amalagmate Lots 165 and 166.	✓				
Lot 501 DP 1122469	Jerberra Rd	N/A		Existing authorised dwelling. No further potential.	N/A				

Schedule 2 - Amalgamation options

(for Lots that are potentially able to be developed if amalgamated with one or more other Lots)

Schedule 1 identifies Lots that need to be amalgamated to enable development. This Schedule provides guidance on the available options for landowners where amalgamation is required to enable development. The information provided is a guide only. Contact Council if you need clarification.

When the land for amalgamation has been identified, the following is provided as a guide to the various options that are available to you in proceeding with the further development of land. In two cases (one involving three lots and one involving five lots - refer to Schedule 1) consolidation and resubdivision will be necessary. In these cases it is recommended that you discuss the options outlined below with the relevant landowners and seek advice from a registered surveyor.

You will need to consider the potential value of the land once it is amalgamated and the cost of providing infrastructure and meeting the requirements of this DCP (including the cost of preparing the development application and removing/upgrading existing unauthorised structures). Refer to information under "Financial Considerations".

- **Option 1 – Pool your land with your neighbours' and prepare/submit Development Application with all owners' consent**

Prepare a Development Application over ALL land that is required to ensure compliance with the provisions of Shoalhaven LEP (Jerberra) 2013 and this Chapter of the DCP. Your development application should propose the building of the dwelling *and* the consolidation of the land to form one allotment.

ALL registered property owners must consent to the lodging of the development application by endorsing either the development application form, separate owners consent form, or other appropriate authority.

Council will require that the land be consolidated as a condition of consent before the occupation of the dwelling. This will require that you engage a Registered Surveyor to prepare a Plan of Consolidation, which you will be required to register with NSW Land and Property Information.

- **Option 2 – Buy your neighbours' land**

Purchase your neighbours' land so that you can meet the minimum area requirement and prepare a development application to build a dwelling (or use an existing structure as a dwelling) and consolidate the land. Eventually, you will need to engage a registered surveyor to prepare a Plan of Consolidation and have it registered with Land and Property Information before an occupation certificate can be issued.

To minimise unnecessary surveying and registration expenses, it is recommended that you do not submit the Plan of Consolidation for registration until your development application has been approved and any restrictions required by Council have been identified on the Plan. This is because Council may require that certain restrictions be identified on the title (such as the location of the effluent disposal area) as a condition of approval.

- **Option 3 – Sell your land**

Your neighbour(s) may be interested in buying your land so that they can develop the land. If other lots are needed to comply with the minimum lot size requirement, they will need to acquire those before seeking development approval.

If your neighbour(s) are not able to buy your land, it may be in your best interests to collectively sell the land as a developable parcel.

Land development companies may be interested in purchasing land to co-ordinate a development site by pooling your land with another suitable lot or lots to provide land of a size that complies with the minimum lot size map.

That company can then pursue development opportunities available under this Chapter.

Financial Considerations

A Land Valuation report was prepared by Opteon Pty Ltd in 2012. The report identified the potential land values of the developable lots shown on the proposed lot layout in the exhibited Planning Proposal. The valuations are a guide only and should be considered in context of the assumptions outlined in the report. The proposed subdivision layout has also been amended since the preparation of that report. .

The anticipated infrastructure costs are provided in the exhibited Planning Proposal. It is recommended that you contact Council for any updated information on costs associated with provision of infrastructure.

Schedule 3 – Template request to vary minimum lot size for certain lots

To be completed...

Jerberra Estate Environmental Management Plan