

## **Recommendation (Clr Guile / Clr Wells)**

That:

1. Council adopt the Falls Creek / Woollamia Deferred Areas Planning Proposal (LP406) as exhibited, with the minor changes outlined in this report and issue the second (and final) invoice to landowners, subject to confirmation that:
  - a. Enable a maximum two lot subdivision at No. 111 Woollamia Road via the planning proposal by changing the exhibited 1 ha. minimum lot size to 2 ha.
  - b. Revise the DCP as follows:
    - i. Amend the suggested subdivision boundary consistent with the revised lot size
    - ii. Remove the property access road and vegetation screening details from the supporting map
    - iii. Replace acceptable solution A3.5 with a general requirement that access roads be sealed and/or screened as appropriate to mitigate impacts on adjoining residences.
  - c. The two invoices issued to landowners to recoup costs incurred by Council in preparing the planning proposal have been paid in full.
2. If part 1c is not fully resolved within 60 days of issuing the second invoice, remove the relevant properties from the LEP amendment and the draft Chapter N16 - Shoalhaven Development Control Plan (DCP) 2014 and refund any monies paid by the owner(s).
3. Subject to the outcome of parts 1 and 2:
  - a. Liaise with the NSW Department of Planning and Environment regarding the finalisation of the required amendment to the Shoalhaven Local Environmental Plan 2014.
  - b. Adopt the attached version of Chapter N16 of the Shoalhaven Development Control Plan 2014 and give public notice in the appropriate local newspaper/s to enable it to become effective upon commencement of the LEP amendment.
4. Ensure that funding improvements at the Jervis Bay Road / Seasongood Road intersection are considered in the FY18/19 budget.

**CARRIED**

**FOR:** Clr White, Clr Gash, Clr Wells, Clr Findley, Clr Cheyne, Clr Alldrick, Clr Gartner, Clr Guile, Clr Pakes, Clr Kitchener, Clr Proudfoot and Russ Pigg

## **DE17.59      Exhibition outcomes - Planning Proposal LP406 and DCP Chapter N16 - Falls Creek / Woollamia Deferred Areas**

**HPERM Ref:**      D17/187131

**Group:**            Planning Environment & Development Group  
**Section:**        Strategic Planning

**Attachments:**    1. DCP Chapter N16 - post exhibition version (track changes) (under separate cover) [↗](#)  
                         2. Supporting Map 1 (post exhibition) Woollamia Road DCP Chapter N16 [↓](#)  
                         3. Traffic Unit Assessment [↓](#)  
                         4. Post exhibition lot size map - Woollamia Road - LP406 [↓](#)  
                         5. Post exhibition lot size map - Seasongood Road - LP406 [↓](#)  
                         6. Supporting Map 2 (post exhibition) Seasongood Road DCP Chapter N16 [↓](#)

### **Purpose / Summary**

To detail and consider feedback received as a result of the exhibition of the Falls Creek / Woollamia Deferred Areas Planning Proposal (PP) LP406 and supporting draft Development Control Plan (DCP) Chapter N16.

### **Recommendation**

That:

1. Council adopt the Falls Creek / Woollamia Deferred Areas Planning Proposal (LP406) as exhibited, with the minor changes outlined in this report and issue the second (and final) invoice to landowners, subject to confirmation that:
  - a. The owner of No. 111 Woollamia Road has surrendered the consent for three tourist cabins (DA00/2847) in accordance with MIN16.945 (part 1.b).
  - b. If the consent for DA00/2847 is not surrendered by 5 September, amend LP406 and DCP Chapter N16 to reduce the number of lots that can be subdivided from three to two in line with the other properties within the subject land.
  - c. The two invoices issued to landowners to recoup costs incurred by Council in preparing the planning proposal have been paid in full.
2. If part 1c is not fully resolved within 60 days of issuing the second invoice, remove the relevant properties from the LEP amendment and the draft Chapter N16 - Shoalhaven Development Control Plan (DCP) 2014 and refund any monies paid by the owner(s).
3. Subject to the outcome of parts 1 and 2:
  - a. Liaise with the NSW Department of Planning and Environment regarding the finalisation of the required amendment to the Shoalhaven Local Environmental Plan 2014.
  - b. Adopt the attached version of Chapter N16 of the Shoalhaven Development Control Plan 2014 and give public notice in the appropriate local newspaper/s to enable it to become effective upon commencement of the LEP amendment.
4. Ensure that funding improvements at the Jervis Bay Road / Seasongood Road

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intersection are considered in the FY18/19 budget.

## Options

1. Adopt the recommendation.

Implications: This will enable the PP to be finalised with minimal delay while ensuring that issues relating to cost recovery and uncertainty around the consent for tourist cabins at No. 111 Woollamia Road are resolved.

2. Make changes to the PP and/or DCP Chapter N16 as directed by Council.

Implications: Further changes to PP and DCP Chapter N16 are not recommended but if considered, they should be consistent with the intended outcomes described in the exhibition documents.

3. Adopt an alternative approach to resolving issues around the payment of Council's costs for preparing the PP and/or the consent for the tourist cabins at No. 111 Woollamia Road.

Implications: It is important that these issues are resolved prior to the finalisation of the PP.

## Background

The Falls Creek / Woollamia Deferred Areas Planning Proposal (PP) - LP406 was first initiated in 2011 to address an action in the Jervis Bay Settlement Strategy 2003 (JBSS) to investigate the potential for increased rural residential densities.

Finalisation of the PP will conclude this longstanding strategic planning project. Background reports and Council resolutions relating to LP406 can be viewed on a dedicated webpage for this project via:

<https://shoalhaven.nsw.gov.au/Planning-amp-Building/Strategic-planning/Paper-subdivisions>

Most recently on 9 May 2017, it was resolved that:

1. Council endorse the updated Falls Creek / Woollamia Deferred Areas Planning Proposal and draft Development Control Plan Chapter N16 for public exhibition and proceed to exhibit for a minimum period of 28 days.
2. Council staff be authorised to make any necessary minor changes to improve readability/usability of the draft Development Control Plan Chapter prior to exhibition.
3. Report the outcomes of the exhibition period back to the Development Committee for final consideration.

## No. 111 Woollamia Road - Consent for tourist cabins (DA00/2847)

The Council resolution of 6 December 2016 (MIN16.945) included the following requirement related to this property that is part of the PP:

*In respect of 111 Woollamia Road, to potentially enable a three lot subdivision based on establishment of a reciprocal right of way between Woollamia Road and Falls Road as outlined in the report prepared by SET Consultants, subject to the owner surrendering the consent for three tourist cabins (DA00/2847) which have not yet been constructed.*

As outlined in the report to Council on 6 December 2016:

*The cumulative impacts (and conflicts) of the tourist cabins and a three lot subdivision on local amenity could be significant, e.g. noise, dust and visual impacts on adjoining properties. Hence, it is recommended that in relation to 111 Woollamia Road, the PP seek to allow a three lot subdivision on the basis that the approval for the cabins be 'surrendered' and that this be done prior to finally amending Shoalhaven LEP 2014. This could be done without delaying the LEP amendment for the other lots within the PP.*

A submission has been received on behalf of the owner of the property who wishes to proceed with the three-lot subdivision. However, the landowner has not surrendered DA00/2847 at this point in time. This issue is discussed later in the report.

### Public Exhibition Details

The PP and draft DCP Chapter N16 (Amendment No. 17 - Shoalhaven DCP 2014) were publicly exhibited for 31 days from 24 May to 23 June 2017. The exhibition display was located at Council's Nowra administrative building and the documents were available for viewing online via the 'Documents on Exhibition' portal.

The exhibition package included the following documents. (Note: the hyperlinks will remain active for 3 months after exhibition close.)

[Planning Proposal LP406 - Planning Proposal Report - \(1,140kb\)](#)  
[Planning Proposal LP406 - Explanatory Statement - \(1,196kb\)](#)  
[Planning Proposal LP406 - Newspaper Advertisement - \(62kb\)](#)  
[DCP 2014 Draft Amendment No 17 - Chapter N16 - Falls Creek Woollamia Rural Residential Areas - \(3,282kb\)](#)  
[DCP 2014 Draft Amendment No 17 - Chapter N16 - Supporting Map 1 - \(291kb\)](#)  
[DCP 2014 Draft Amendment No 17 - Chapter N16 - Supporting Map 2 - \(241kb\)](#)

The public exhibition was advertised widely, including advice to landowners within the PP area and those adjacent to it. Relevant Government Departments/Agencies were also informed of the exhibition arrangements.

### Submissions

As a result of the exhibition, three (3) landowner / community submissions were received:

- One (1) submission on behalf of a landowner within the PP;
- One (1) submission from an adjoining landowner with specific concerns in relation to the neighbouring property within the PP; and
- One (1) submission from a member of the community with more general concerns.

The issues raised in each submission are summarised below. Copies of the actual submissions will be available in the Councillors' room prior to the meeting.

**Table 1: Summary of landowner / community submissions**

**Author:** Concerned Community Member

**Doc Ref:** D17/193889

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Issue	Staff Comment
Proposal will change traffic flows along Woollamia Road due to the proposed plan to open Falls Road to the public. Traffic will exit/enter Falls Road at the Princes Highway and continuing along Falls Road onto the Woollamia Road.	No change is proposed to Falls Road, a section of which is unformed. Traffic cannot drive directly from the Highway to Woollamia village via Falls Road. Note: comments from Council's Traffic Unit have been incorporated into the PP.
Proposal will increase traffic flows along Woollamia Road and through Woollamia village.	The proposal would result in up to five additional dwellings along Woollamia Road. The resulting increase in vehicle movements would not be significant in the context of the overall locality.
Proposal will set a precedent for further subdivision of the remaining Rural Residential Deferred Areas.	Finalisation of the PP will complete the action in the JBSS to investigate the potential of these areas to accommodate further subdivision. This process started with a much larger area under consideration and has resulted, through detailed investigations, in a much reduced area being identified for additional subdivision.
Other landowners will seek to have their land rezoned.	These concerns relate to hypothetical PP's and subdivision(s). Given the process that has been followed, any additional land would need to be considered through separate and subsequent PP's. Landowners would need to prepare their own PP and submit to Council with the appropriate fee. Any such PP would need to be supported by a number of studies, be funded by the landowner(s) and have a strategic basis.
Precedent will ultimately create a ribbon development that will have adverse impacts on natural and cultural heritage values.	Notwithstanding that JBREP was repealed on 5/8/2016, The PP was informed by a strategic environmental assessment. Areas with important biodiversity habitat are proposed to be added to the terrestrial biodiversity map. The PP and supporting DCP Chapter N16 are designed to protect riparian corridors and land with important natural and cultural heritage values.
The proposal will not meet the aim of the Jervis Bay Regional Environmental Plan 1996 (JBREP) to protect the natural and cultural heritage values of Jervis Bay.	DCP Chapter N16 requires a 30 metre riparian buffer to be provided along the watercourses, and each subdivision application will need to be supported by a Neutral or Beneficial Effect (NorBE) Assessment to ensure receiving waterways are protected. Minor changes made to Acceptable Solutions A7.1 and A7.4 enhance protection of riparian areas (see <b>Attachment 1</b> ).
Proposal will further fragment the forest and understory habitat as well as increase nutrient and turbidity into the riparian areas within the catchment of wetlands and Jervis Bay Marine Park.	Note: the Jervis Bay Marine Parks Authority provided comments and these are discussed below
Proposal will result in localised extinction of threatened flora and fauna species	In addition to the comments provided above, potential impacts on threatened biodiversity will need to be further assessed as part of each development application. Targeted surveys for relevant threatened species will need to be undertaken as part of each application.
Habitat at the corner of Seasongood and Jervis Bay Roads will be fragmented.	Development of No. 1 Seasongood Road would be confined to cleared land within 200 metres of the road. The triangular lot at the corner of Seasongood and Jervis Bay Roads (Lot 8763 DP 1189732) and adjoining lots to the North, West and South are not part of the PP.
Proposal will fragment the wildlife corridor that	The proposal seeks to minimise disturbance of biodiversity

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connects Currumbene Creek to Woollamia Nature Reserve to Parma Creek Nature reserve into the Great Eastern Escarpment and the Budawang Wilderness.	habitat and requires riparian areas to be protected. Will have negligible impact on habitat connectivity in the broader landscape.
Creek lines provide habitat for threatened species and the Swamp Sclerophyll Forest Endangered Ecological Community	See comments above.
Proposed new bridges, roads, drainage and land clearing will change the natural hydrology and water quality that in turn will impact on microclimates and frog habitats.	A Strategic Water Cycle Assessment recommended measures to ensure that the natural hydrology and water quality regimes are maintained. These recommendations have been incorporated into DCP Chapter N16. This includes that requirement that each subdivision application is supported by a NorBE Assessment.
Rural land must be protected for its environmental and health benefits to society as a whole as well as the food that is produced within the catchment and out into the Jervis Bay Fisheries that provides Seafood as a Primary Industry	The proposal will have a negligible environmental impact and no impact on food production (terrestrial or aquatic).
<b>Author:</b> Adjacent Landowner	Doc Ref: D17/197305
<b>Issue</b>	<b>Staff Comment</b>
Adjoining owner concerns relating to No. 111 Woollamia Road: as previously stated have no objection to the proposed 3-lot subdivision, but have grave concerns concerning the through road.	The concerns previously raised were circulated to Councillors prior to the Development Committee meeting in December 2016.
Proposed road / right of way is 36 metres from front door, 20 metres from garage and 35 metres from pool area.	Note: These dimensions are based on the exhibited alignment, i.e. a 4-metre buffer between the road shoulder and boundary (to accommodate a vegetation screen). Further detailed comments in this regard are provided below.
Would prefer if the access road runs along the western boundary and crosses to the eastern boundary behind the second dam. This would eliminate the need to enter into the low lying sensitive wetlands area and the construction of a raised bridge.	The watercourse crossing may still need to be below the 1 in 100 year flood extent. Furthermore, the length of road suggested would be significantly longer than the proposed alignment along the eastern boundary, which is largely cleared. No change is recommended.
If the above option is not considered, request that the access road be moved further into the centre of paddock to reduce noise, light and dust pollution	The exhibited DCP Chapter N16 included a suite of measures in an attempt to limit future noise, light and dust pollution, including requirements for the road to be sealed within 50 metres of the dwelling, and for a 3-4 metre high vegetation screen to be established between the road and the boundary. Minor adjustments are proposed to strengthen these provisions (see <b>Attachment 1</b> ).  The level of use of this section of road is likely to be very limited: vehicles are more likely to access the property directly from Woollamia Road rather than travel a much longer route via Falls Road.  Given the measures that have been included in the DCP, It is not considered necessary to increase the setback of the road from the boundary given the other proposed provisions.  The issues in this regard can be given further detailed consideration in any future development application for

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<p>Road should be sealed from Falls Road to 50 metres past our dwelling</p> <p>Plant spacing for screening hedge should be 1 metre (centres) to ensure density is adequate and 2.5 – 3 metres from the boundary fence to allow maintenance of the fence etc.</p>	<p>subdivision.</p> <p>DCP Chapter N16 has been revised to require the access road to be sealed 50 m either side of the adjacent dwelling (see <b>Attachment 2</b>)</p> <p>Advice from Council's Landscape Architect is that 1 metre may be insufficient for some species. The wording in the DCP has been changed to read "1-2 metres spacing between plants depending on species, 2 metres from boundary" (see <b>Attachment 2</b>).</p>
<p><b>Author:</b> SET Consultants (on behalf of the owner of No. 111 Woollamia Road)</p>	<p>Doc Ref: D17/205929</p>
Issue	Staff response
<p>The site currently has development approval for the construction of three (3) tourist cabins (DA00/2847) in two stages:</p> <ul style="list-style-type: none"> <li>• Stage one was for the construction of 'Cottage 1, one car parking space and landscaping' and</li> <li>• Stage two - 'Cottage 2 &amp; 3, two additional car parking spaces, access, bushfire mitigation works and landscaping'. Stage 2 was deferred, subject to additional information being provided.</li> </ul> <p>The owner proposes that he retain Stage 1 and surrender only Stage 2 of the existing approval, prior to the registration of any subdivision of the land.</p> <p>Council has acknowledged that "suitable commencement" has occurred for stage 1. As such, believe it is unreasonable to request that the owner forfeit this part of the consent. Cottage 1 is located within close proximity to the existing dwelling and would remain with the dwelling in any future subdivision. The cottage will not be located on its own lot and will continue to be utilised as a tourist cabin in accordance with the Consent.</p> <p>Request that Council amend the minimum lot size map to align with their proposed revised minimum lot size map based on:</p> <ul style="list-style-type: none"> <li>• 2 ha at the front of the site;</li> <li>• 1 ha in the middle of the site; and</li> <li>• 3 ha at the rear of the site.</li> </ul> <p>Has invested a significant amount of money in developing the site in a specific manner to ensure all sections of the site retain their own infrastructure and water supply.</p>	<p>This request is not supported.</p> <p>Council previously resolved that progression of the PP is based on the owner surrendering the consent and this was stated in the exhibited PP and supporting material.</p> <p>The cumulative impact of two additional dwellings (3 dwellings total) and Cabin 1 has not been considered by the community or assessed through the PP process. Cottage 1 would be positioned on a 1 ha lot and be within close proximity of the access road and new dwellings. This will create potential impacts on local amenity within the subject the lot (e.g. impacts on the dwellings and access road on the privacy of the cabin) as well as on adjoining land.</p> <p>Note: If DA00/2847 is not to be surrendered, it is recommended that the PP be modified to allow a two-lot subdivision (2 dwellings total). This requires clear direction prior to finalising the PP.</p> <p>Notwithstanding the advice Council has provided, the cabins themselves have not yet been constructed.</p> <p>If Cabin 1 had been constructed, a maximum of two lots (one additional dwelling) would be supported.</p> <p>It is recommended that if the consent is not surrendered by a specified date, the PP be amended to reduce the number of new dwellings from two to one, in accordance with the exhibited PP.</p> <p>Overall requested change is not supported: 3 ha is too small for the rear lot as it would result in development overlapping into the riparian buffer.</p> <p>The exhibited lot size map has however been amended slightly to ensure that the boundary between the middle and rear lot is well to the north of the dam. The revised lot size map is attached (<b>Attachment 4</b>)</p> <p>The decision to proceed with a subdivision rests with the owner. For example, they could stage or delay the subdivision to suit their personal circumstances.</p>

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The 'kink' in the Lot Size Map between the 2ha and 1ha areas is to ensure that the large dam located on the site is retained within the front lot. This dam forms part of the critical infrastructure relating to the operation of the miniature horse stud.	See above comments.
The proposed building areas are within the Council investigation area.	The curtilage of the dwellings (APZ) would overlap substantially into the riparian buffer and the building envelope (15 metres x 15 metres) would be too small in this context.

Three (3) Government agencies provided submissions – NSW Rural Fire Service (RFS), NSW Roads & Maritime Services (RMS) and the Department of Primary Industries – Jervis Bay Marine Park (DPI- JBMP). These are summarised below. Copies of the actual submissions will be available in the Councillors' room prior to the meeting.

**Table 2: Summary of Government agency submissions**

Agency / Doc Ref	Issue	Staff response
RFS D17/197015	Suggested rewording of DCP Chapter acceptable solution A3.5 to ensure that the new dwellings at No's 21 and 23 Seasongood Road are constructed to BAL 29.  Has no objection to the progression of the PP subject to incorporation of the above suggestion.	This is consistent with previous verbal advice from the RFS and is considered appropriate given the proximity of the dwellings to the public road.  Suggestion has been incorporated into the revised DCP Chapter N16. Noted.
RMS D17/198677	Recognise that the lot/dwelling yield has been reduced from 37 to 16. The PP is unlikely to generate significant traffic, however it will intensify the use of intersections at the Princes Highway and Jervis Bay Road. Council needs to determine if any upgrades are required to these intersections as an outcome of the PP - however consider that the PP is unlikely to greatly impact on the Princes Highway.	Noted.  Noted.  Council's Traffic Unit has advised that the intersection of Jervis Bay Road and Seasongood Road is at or near capacity (refer to <b>Attachment 3</b> ).  The traffic assessment shows that the additional dwellings that are proposed to have access to Seasongood Road would result in a 29% increase in turning movements at the intersection with Jervis Bay Road (albeit from a relatively low base). This increase in traffic volumes would trigger the need for an upgrade to the intersection of Seasongood Road and Jervis Bay Road. An upgrade to this intersection would enhance both safety and capacity, by providing a higher level of protection both for traffic turning to and from Seasongood Road, and for through traffic in Jervis Bay Road.  The assessment also shows the intersection, based on current conditions, requires some improvements. Accordingly, this report includes a recommendation for these works to be considered in the 2018/2019 FY.
DPI - JBMP	Affects lands within the Currumbene Creek catchment which is classed as Type 1 Key	Noted.

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D17/199003	<p>fish habitat and is within sanctuary, habitat protection and special purpose zones of Jervis Bay Marine Park.</p> <p>Not supportive of new development without provision of adequate sewerage infrastructure because of the likelihood of detrimental impacts on water quality and receiving waters of the marine park. Water sampling suggests that excessive faecal coliforms are entering Jervis Bay via Currumbene Creek during heavy rain events.</p> <p>Highlight that: “The NorBE test is only applied to sediment, phosphorous and nitrogen loads and concentrations. It is accepted that overall flows will increase with an increase in effective imperviousness.” (SEEC, Strategic Water Cycle Assessment, p.34) Increase in overall flows will likely increase pollution from existing effluent disposal systems.</p> <p>Thus it is recommended that the draft DCP 2015 Chapter N16 be amended as follows:</p> <ul style="list-style-type: none"> <li>Amend A 10.1 to read – Existing systems will be upgraded at the subdivision stage</li> </ul>	<p>A strategic onsite wastewater assessment was completed as part of the <a href="#">strategic water cycle assessment</a> commissioned by Council. The assessment concluded that the risk of nutrients and pathogens being exported can be managed by:</p> <ul style="list-style-type: none"> <li>requiring treatment to secondary standard</li> <li>appropriate design, construction and management of subsurface irrigation</li> <li>preventing stormwater ingress</li> <li>establishing/managing vegetation cover</li> </ul> <p>These requirements have been incorporated into DCP Chapter N16.</p> <p>Practical measures to minimise pollution arising from the new onsite systems are proposed in DCP Chapter N16, including:</p> <ul style="list-style-type: none"> <li>Requiring treatment to secondary standard before land application.</li> <li>Applying the treated effluent to a pressurised or dose-loaded subsurface application area</li> <li>Requiring a diversion swale/trench to prevent stormwater and groundwater ingress.</li> <li>Adhering to Council's required buffer requirements</li> </ul> <p>This cannot be required unless the existing onsite system is failing. Onsite effluent systems are already currently regulated under section 68 of the Local Government Act and are typically inspected by Council every three years.</p> <p>DCP Chapter N16 will require an assessment of the existing system to be undertaken as part of the subdivision application, and that it be upgraded if there is evidence of failure.</p>
	<ul style="list-style-type: none"> <li>APZ's must not be permitted to overlap onto riparian buffers or any other environmental buffers relating to protection of water quality. It is essential that good quality vegetation cover is maintained to provide effective buffers that are being relied on to provide environmental protection benefits as part of the overall stormwater and effluent management system/s. If an adequate buffer cannot be maintained whilst accommodating the APZ, the lot is not appropriate for subdivision.</li> </ul>	<p>The PP will significantly increase protection of watercourses by requiring a 30 metre riparian buffer (comprising a 20 metre core riparian zone and a 10 metre vegetated buffer) to be provided on both sides of the watercourse.</p> <p>The riparian buffer will need to be fenced off and maintained as native bushland (including regeneration of cleared areas). Overlap of the APZ is only proposed to be allowed to the extent shown on the Supporting Maps, effectively limiting it to No. 49 Woollamia Road, within the outer 10 metre vegetated buffer. Furthermore, this will need to be offset by increasing the buffer provided elsewhere on the lot.</p>

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### Summary of Changes

To respond to the relevant items identified in the submissions and discussed above adjustments and changes are proposed to the PP and the DCP Chapter.

### Planning Proposal

The following minor adjustments are proposed to the lot size maps within the PP:

- No. 111 Woollamia Road – decrease the area shown as 4 ha minimum lot size area to be consistent with the revised suggested subdivision boundary shown on the revised Supporting Map 1 for DCP Chapter N16. This change responds to the submission from SET Consultants (Table 1).
- No's 18 and 20 Seasongood Road - change the alignment of the boundary between the 2 ha and 1 ha minimum lot sizes to be consistent with the suggested subdivision boundary shown on the revised Supporting Map 2 for DCP Chapter N16. This change addresses an anomaly identified by staff during the exhibition.

The revised lot size maps for Woollamia Road and Seasongood Road are provided in **Attachments 4 and 5** respectively.

### **DCP Chapter N16**

Other than minor formatting and editorial changes, the changes proposed to DCP Chapter are:

- Change to Acceptable Solution A3.2 incorporating the suggestion from the RFS to ensure dwellings at No's 21 and 23 Seasongood Road are constructed to BAL 29.
- Minor changes to Supporting Maps 1 and 2 and Acceptable Solutions A7.1 and A7.4 to limit disturbance of riparian buffers in response to concerns about impacts on riparian corridors and downstream environments in the Jervis Bay Marine Park.
- Minor change to Acceptable Solution A10.1 to clarify the nexus between assessment of existing onsite effluent systems and subdivision proposals, responding to feedback from Council's Subdivisions section.
- Addition of a requirement for any stormwater treatment devices required as part of the subdivision process to be identified on the property title so that subsequent owners are aware of their management obligations, responding to feedback from Council's Subdivisions section.
- Addition of a note under Acceptable Solution A16.3 to ensure that any clearing of vegetation to improve sight distances (in relation to new driveways) is included and assessed as part of the subdivision application, responding to feedback from Council's Subdivisions section.

These changes are highlighted in the 'track-changes' version of Chapter N16 provided as **Attachment 1** (see separate folder).

The following changes have been made to Supporting Map 1 concerning No. 111 Woollamia Road:

- Additional detail in the inset map to clarify the extent of sealing required for the property access road to minimise impacts on local amenity, responding to submission from the adjoining landowner.
- Additional detail in the inset map concerning the vegetation screen requirements to minimise impacts on local amenity and privacy, responding to submission from the adjoining landowner.
- Adjustments to the building line for the rear-most dwelling. The submission from SET Consultants prompted a review of the slope mapping and APZ calculation between the dwelling and the watercourse. As a result, the APZ is reduced from 39 metres to 32 metres.
- The suggested subdivision boundary between the middle and rear lot was moved further north of the dam (consistent with the change to the minimum lot size map) in response to the submission from SET Consultants.

The revised Supporting Maps are provided as **Attachments 2** and **6** for Woollamia Road and Seangood Road respectively.

### Community Engagement

The Falls Creek / Woollamia Deferred Areas PP and draft DCP Chapter N16 are rated as “local area – high impact” using Council’s community engagement matrix. The engagement methods employed as part of the public exhibition process are consistent with this rating. As detailed in this report, minor changes are proposed in response to submissions received.

### Financial Implications

Consistent with part 4 of Council’s resolution on 6 December 2016, an invoice for 50% of Council’s costs (\$1,423.50 including GST) was issued to each landowner on 16 May 2017. Payment was due on 15 June 2017. As at 11 July 2017, six landowners owe a total of \$8,301.75. This highlights the need to require full payment of the PP invoices *before* the PP is finalised.

If the recommendations of this report are adopted, invoices for \$1,423.50 (per property) will be sent to each landowner after Council has resolved to adopt the PP. It is proposed to require payment within 60 days rather than the standard 30 days, in recognition of the financial circumstances of some owners.

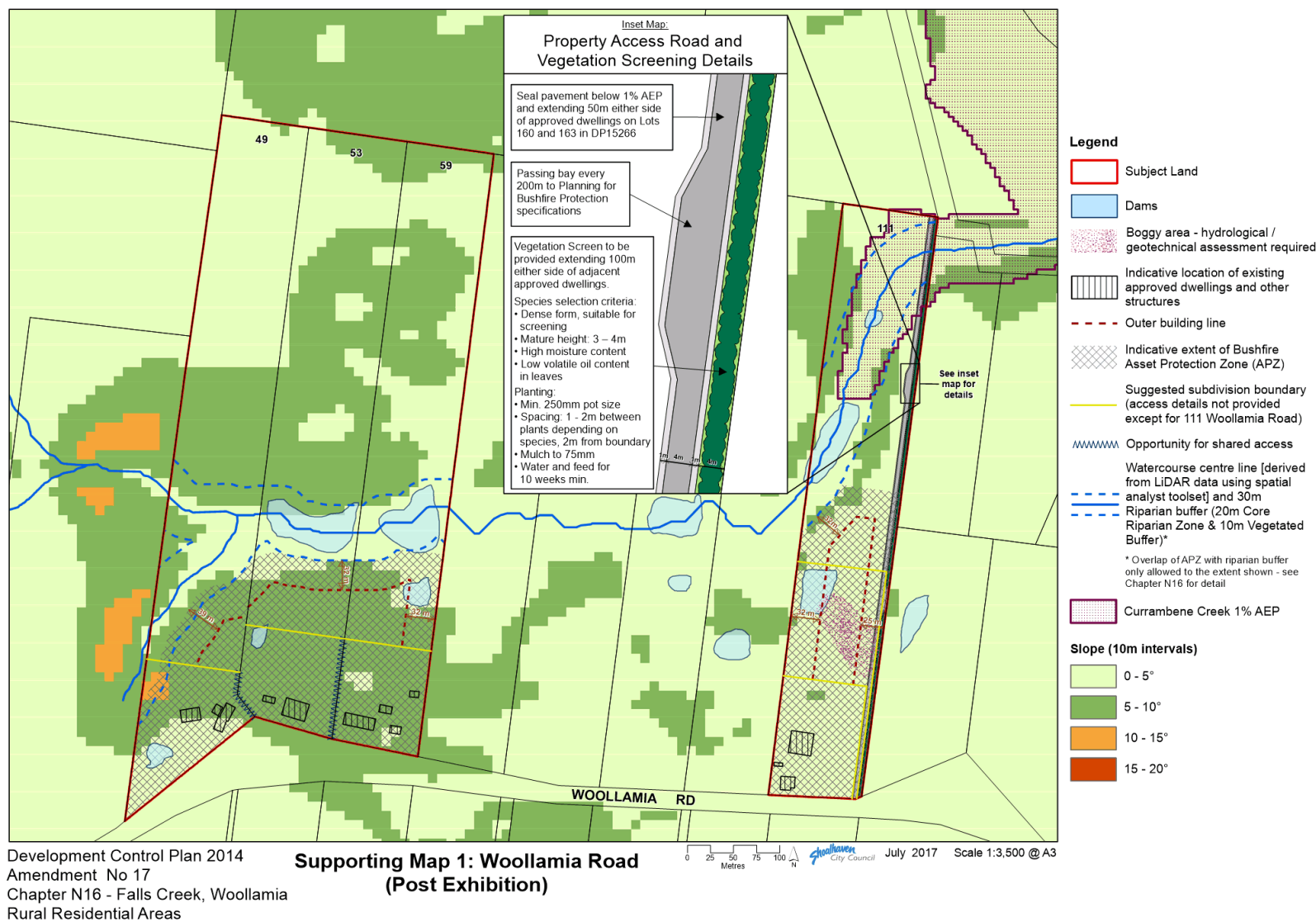
It is important that Council set a firm date by which all fees must be paid. Hence, any properties with outstanding fees after 60 days of issuing the second invoice would be removed from PP and DCP Chapter N16.

Correspondence will be sent to the landowners to ensure they are aware of this deadline and the implications of not paying their invoices. Any monies paid by these owners will be refunded.

### Conclusion

Adopting the recommendations of this report will enable this legacy planning project to be resolved. Submissions on the PP and DCP Chapter N16 have been carefully considered and changes recommended where appropriate to address the issues raised.

The recommendations seek to enable the PP to be finalised in a timely manner whilst recovering Councils costs.



SCC Traffic Unit assessment of external traffic impacts associated with  
Potential Subdivision and Development Outcomes Falls Creek /  
Woollamia Deferred Areas Planning Proposal (LP406)

**Background**

Council's Traffic & Transport Unit was requested by Strategic Planning to assess the wider traffic implications of a proposal to permit an additional 16 new rural residential lots / dwellings in the Woollamia locality. The Traffic Impact Assessment (TIA) below provides the outcomes of the intersection analysis.

**Traffic Impact Assessment (TIA)**

Currently there are no passing lanes in Jervis Bay Road at Seasongood Road that would enable through traffic to pass turning vehicles.

The TIA shows that the additional 11 Lots / dwellings<sup>1</sup> that are proposed to have access to Seasongood Road would result in a 29% increase in turning movements at the intersection with Jervis Bay Road (albeit from a relatively low base).

This increase in traffic volumes would trigger the need for an upgrade to the intersection of Seasongood Road and Jervis Bay Road. In order to comply with Austroads Guidelines, this would require provision of a short channelised right turn - CHR(S), and a short auxiliary left turn - AUL(S).

An upgrade to this intersection would enhance both safety and capacity, by providing a higher level of protection both for traffic turning to and from Seasongood Road, and for through traffic in Jervis Bay Road.

An assessment of existing traffic volumes at the intersection and analysis against the Austroads warrants for rural turn treatments<sup>11</sup> shows that the current intersection volumes (without the additional volumes generated by the planning proposal) satisfy the requirements for upgrading the intersection to a Basic Right Turn (BAR) and Basic Left Turn (BAL) in Jervis Bay Road.

Note that the analysis shows that the upgrade is required both for the current posted 100km/h speed limit in Jervis Bay Road, and, hypothetically, if the speed limit was to be reduced at some time in the future to 80km/h.

The TIA identified there are existing sight distance constraints at the intersection, and as an interim safety measure, the Traffic Unit is proposing to install advance directional sign posting of the Seasongood Road intersection in Jervis Bay Road.

**Way forward**

The upgrade of this intersection is not currently included in a forward program of works. Due to competing priorities and funding constraints, it is unlikely that Council would be in a position to upgrade the intersection to fully comply with Austroads Guidelines for some time.

Currently, there is no concept design or cost estimate for upgrading the intersection.

At a recent meeting held on 11 July 2017 it was agreed that limited widening of Jervis Bay Road at the intersection with Seasongood Road would be undertaken.

The meeting was attended by Mr Martin Uptis, Section Manager, Asset Management, Mr Eric Hollinger, Senior Project Planner, Strategic Planning, and Mr Mark Wolstenholme, Transport Engineer.

**Recommendation**

It is recommended that Strategic Planning seek confirmation from the Section Manager, Asset Management on the timing of the necessary intersection widening to ensure that it at least aligns with the proposed timing for the planning proposal.

**Officer: Mark Wolstenholme, Transport Engineer**

**Date: 17 July 2017**

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<sup>i</sup> Numbers 1, 3, 5, 7, 9, 11, 13, 18, 20, 21, 23 Seasongood Road, as outlined in D17/109521

<sup>ii</sup> Section 4.8, Figure 4.9 of the Austroads Guide to Road Design Part 4A – Unsignalised and Signalised Intersections

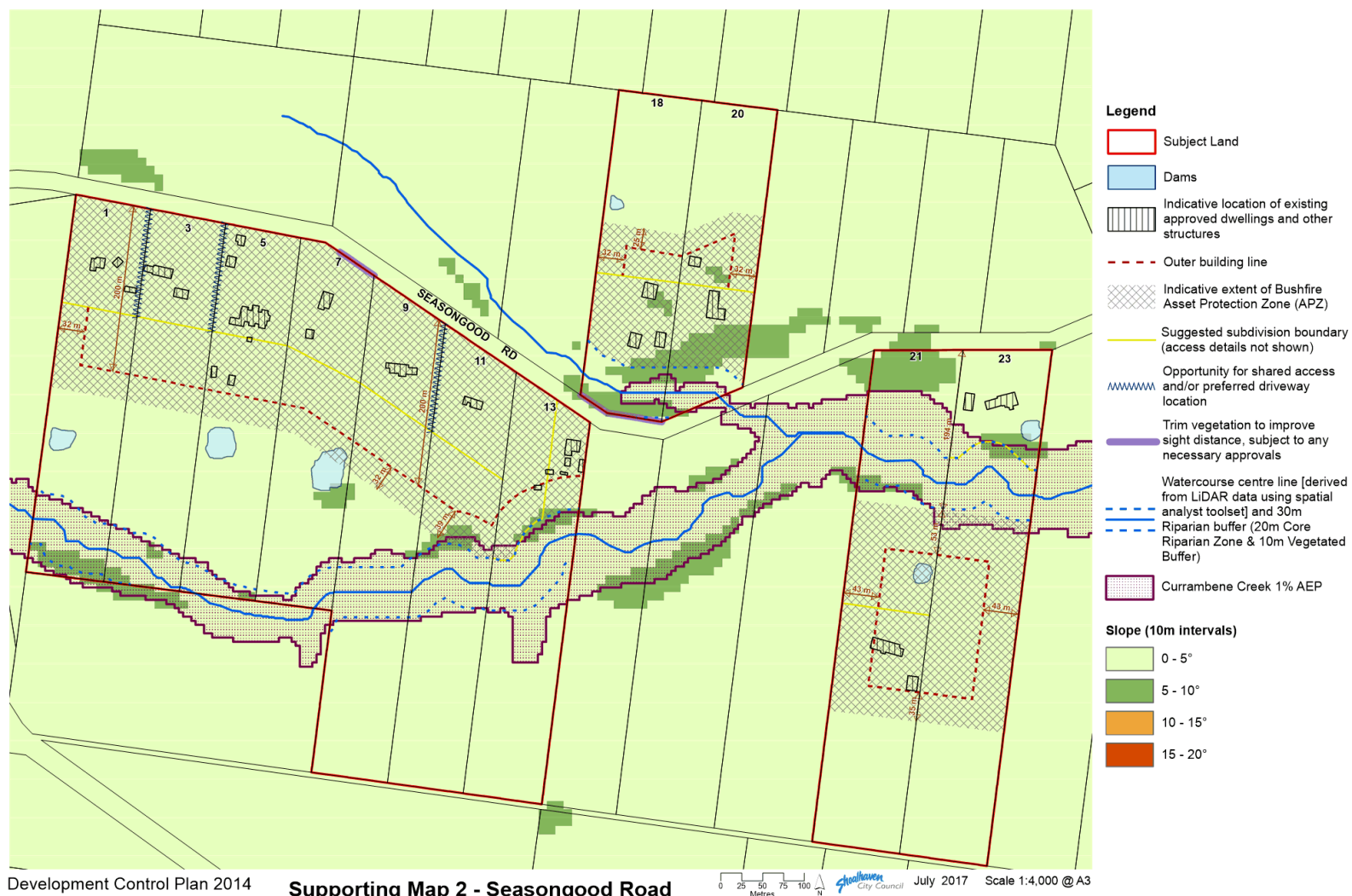


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Development Control Plan 2014  
Amendment No 17  
Chapter N16 - Falls Creek, Woollamia  
Rural Residential Areas

**Supporting Map 2 - Seasongood Road  
(Post Exhibition)**

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Shoalhaven Development Control Plan 2014

Chapter N16: Falls Creek Woollamia Rural Residential Areas

## Chapter N16: Falls Creek / Woollamia Rural Residential Deferred Areas

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Amendment history			
Version Number	Date Adopted by Council	Commencement Date	Amendment Type
1			Draft
2			

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**DRAFT Chapter N16: Falls Creek / Woollamia Rural Residential Deferred Areas**

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**DRAFT Chapter N16: Falls Creek / Woollamia Rural Residential Deferred Areas**

## 1 Purpose

This purpose of this Chapter is guide rural residential subdivision and development within the subject land.

**Advisory Note:** In addition to the provisions outlined in this Chapter, you must refer to:

- Chapter N16 Supporting Maps [1](#) and [2](#)

## 2 Application

This Chapter applies to land identified in Figure 1.



Figure 1 - Subject Land Map

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**DRAFT Chapter N16: Falls Creek / Woollamia Rural Residential Deferred Areas**

### 3 Context

Shoalhaven Local Environmental Plan 2014 (SLEP 2014) was amended on **[date to be inserted]** allowing increased rural residential densities on 15 lots in the Falls Creek / Woollamia areas. This concluded a Planning Proposal (PP) arising from an action in the Jervis Bay Settlement Strategy (JBSS) 2003 to investigate the Falls Creek / Woollamia rural residential deferred areas. Further information on the land's planning history is available on [Council's website](#).

A number of strategic planning and environmental assessments were completed to assist with preparation of the PP. This Chapter incorporates the key findings and recommendations of those assessments, to potentially enable development and manage bushfire risk while also protecting the environment.

### 4 Objectives

The objectives are to:

- i. Facilitate low-impact rural residential subdivision that is sympathetic to the environment and consistent with the objectives of amendment to Shoalhaven Local Environmental Plan (LEP) 2014 dated **[date to be inserted]**.
- ii. Enhance the overall biodiversity value while applying strategic bushfire risk management principles.
- iii. Protect hydrology and water quality in downstream environments, including wetlands, Currumbene Creek and Jervis Bay.
- iv. Provide guidance on information requirements and considerations for development applications.

### 5 Controls

#### 5.1 Bushfire risk

The subject land is identified as Bushfire Prone Land on mapping endorsed by the NSW Rural Fire Service (RFS). Individual applications for development are required to be assessed in accordance with Section 79BA of the *Environmental Planning and Assessment Act 1979*, or where relevant (including residential subdivision and "special fire protection purposes") in accordance with Section 100B of the *Rural Fires Act 1997*.

**Note:** Bushfire planning requirements in NSW are set out in the RFS's Planning for Bushfire Protection (PBP) and the Australian Standard for building and construction in bushfire prone areas (AS3959) (or equivalent documents).

While any application for subdivision and residential development on bushfire prone land will need to address PBP, the controls in this section provide a strategic approach to minimising bushfire risk while also protecting the environment and local amenity. This will be achieved principally by aligning/clustering dwellings as shown on the Supporting Maps.

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Bushfire risk mitigation measures are detailed below and on Supporting Maps 1 and 2. They will help ensure that any future rural residential subdivision is able to meet the requirements of Planning for Bushfire Protection (PBP).

In the case of No. 111 Woollamia Road, Shoalhaven LEP 2014 potentially allows a three lot subdivision. However, this will require a property access road linking Woollamia Road and Falls Road, coupled with measures to protect local amenity (see Supporting Map 1).

**Note:** The RFS advises landowners to prepare a Bush Fire Survival Plan and make an early decision about whether to stay and defend their property or evacuate.

**5.1.1 Objectives**

- i. ~~Ensure~~ subdivision and rural residential development complies with the objectives of PBP and AS3959 (or equivalent documents) whilst having due regard to the environmental constraints.
- ii. ~~Promote~~ a strategic approach to locating new dwellings to manage bushfire risk.
- iii. ~~Ensure safe~~ all-weather access is provided for residents and firefighters in accordance with PBP.
- iv. ~~Ensure~~ that hazard reduction activities can be safely and effectively conducted at the bushland interface.

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**5.1.2 Performance criteria and acceptable solutions**

**Note:** Your application must consider any relevant provisions in:

- Chapter G11: Subdivision of Land.
- Chapter G12: Dwelling Houses, Rural Worker's Dwellings, Additions and Ancillary Structures.

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Performance Criteria	Acceptable Solutions
P1.1 Dwellings and associated structures are located adjacent to existing development and/or roads.	A1.1 Subdivisions are consistent with the Suggested Subdivision Layout shown on the applicable Supporting Map.
P1.2 Development balances the need to minimise the APZ area whilst avoiding flame contact.	A1.2 New dwellings will be located within the building lines shown on the relevant Supporting Map.
	A1.3 Building envelopes are identified on subdivision plans.
	<p><b>Note:</b> Other building setbacks are provided in Chapter G12: Dwelling Houses, Rural Worker's Dwellings, Additions and Ancillary Structures.</p> <p>A1.4 The <u>building envelope enables</u> BAL-29 <u>construction or less</u> under AS3959 (or equivalent).</p> <p><b>Notes:</b></p> <ol style="list-style-type: none"> <li>BAL-29 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 29 kW/m<sup>2</sup>. BAL 19 is designed to withstand up to 19 kW/m<sup>2</sup>.</li> <li>Clustering dwellings so that APZs overlap with those on adjoining properties may enable the dwelling (or part thereof) to be constructed to a lower BAL level subject to a bushfire assessment report.</li> </ol>
P2 There is legal certainty that APZs will be maintained in perpetuity	<p>A2.1 APZs are located within the property boundary</p> <p>A2.2 Where APZs extend onto adjoining land, easements are established</p>

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Performance Criteria	Acceptable Solutions
P3 Access requirements comply with Planning for Bushfire Protection (PBP) while also minimising <u>impacts on the environment and local amenity.</u>	<p>The proposal complies with PBP and specifically:</p> <p>A3.1 Secondary property access is provided for dwellings further than 200 metres from a public road, with the exception of No.'s 21 and 23 Seasongood Road (refer to A3.2 )</p> <p>A3.2 In lieu of secondary access at No.'s 21 and 23 Seasongood Road, <u>and as indicated on Supporting Map 2,</u> new dwellings are:</p> <ul style="list-style-type: none"> <li>i. <u>located adjacent to existing approved dwellings; and</u></li> <li>ii. <u>provided with APZs which achieve a radiant heat no greater than 19 kW/m<sup>2</sup>;</u> <u>and</u></li> <li>iii. <u>constructed to a minimum of Bushfire Attack Level (BAL) 29 under AS3959.</u></li> </ul> <p>A3.3 Driveways are designed in accordance with the splayed driveway specifications provided in Figure 2.</p> <p>A3.4 Watercourse crossings will accommodate category 1 firefighting vehicles and existing access roads will be upgraded where necessary.</p> <p><u>A3.5 Measures to mitigate the impact of the property access road at No. 111 Woollamia Road will be implemented as detailed on Supporting Map 1.</u></p>

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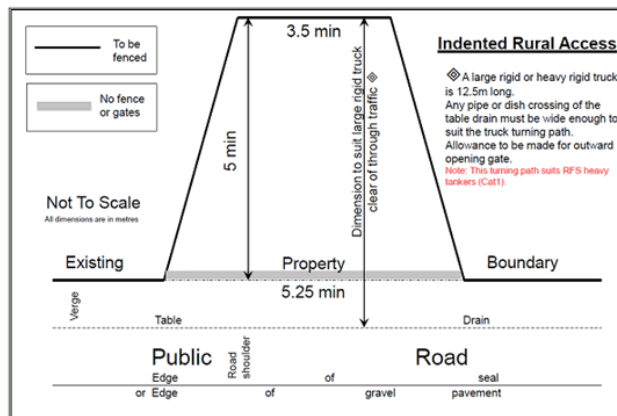


Figure 2 - Specifications for indented/splayed driveway crossings (designed to comply with Planning for Bushfire Protection requirements)

## 5.2 Biodiversity

The biodiversity value of native vegetation within the subject land varies depending on a range of factors including: vegetation type, presence of weeds, maturity, connectivity, species diversity, and the degree of disturbance. An indication of the biodiversity value across the subject is provided in Figures 3 and 4 for Woollamia Road and Seasongood Road respectively.

Land shown as 'high' value biodiversity land includes land aligning watercourses, endangered ecological communities, hollow-bearing trees. Riparian land helps to stabilise banks, maintain water quality, and provide habitat and links for native species and communities. The biodiversity value of other native vegetation was based on a quantitative assessments of integrity, diversity and connectivity.

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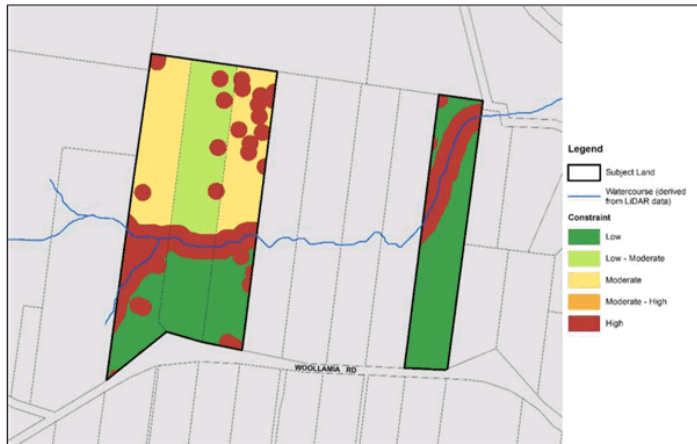


Figure 3 - Biodiversity values within the subject land - Woollamia Road

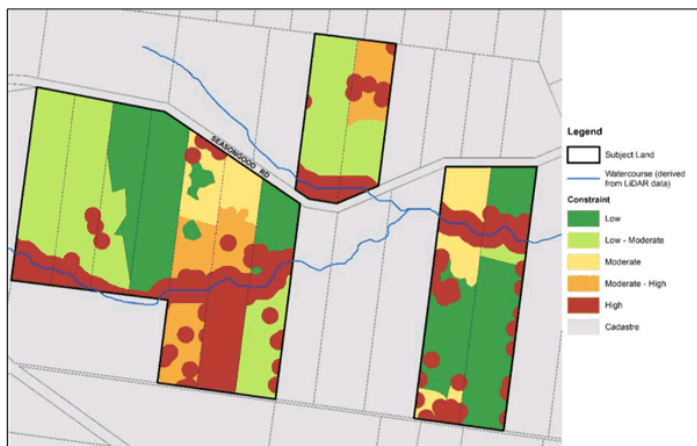


Figure 4 - Biodiversity values within the subject land - Seasongood Road

Development should aim to avoid or minimise impacts on biodiversity value. Figures 3 and 4 provide an *indication* of the constraints to development. They are based on a 2014 preliminary habitat assessment: nocturnal and targeted species' searches were NOT

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undertaken as part of the assessment. Note that parts of the 'high' and 'moderate-high' biodiversity land are also mapped as 'Biodiversity – significant vegetation' on SLEP 2014, to which clause 7.5 applies.

Each application involving removal or disturbance of native vegetation will be required to complete a Biodiversity Assessment. Targeted surveys will need to be undertaken for the relevant species, by an appropriately qualified consultant.

Each subdivision application will need to demonstrate that biodiversity will be maintained and improved. In some cases it may be necessary to offset the impacts of the development through a formal biobanking agreement.

**Note:**

You should make appropriate enquiries *before* doing any clearing to determine whether approval is required – refer to contact details provided above. Significant penalties can be imposed for clearing vegetation without the necessary approval(s).

**5.2.1 Objectives**

- i. Ensure that development has minimal impact on biodiversity.
- ii. Protect and enhance the ecological value of watercourses and riparian land.

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**5.2.2 Performance criteria and acceptable solutions**

**Note:** Your application must consider any relevant provisions in:

- Chapter G2: Sustainable Stormwater Management and Erosion/Sediment Control
- Chapter G4: Tree and Vegetation Management
- Chapter G5: Threatened Species Impact Assessment
- Chapter G11: Subdivision of Land

Performance Criteria	Acceptable Solutions
P6 Subdivision and development is designed to minimise impacts on the biodiversity values.	A6.1 Subdivision is consistent with the Suggested Subdivision Boundaries (SSB) shown on the Supporting Maps.
	A6.2 Minimal clearing of threatened species habitat is required to accommodate driveways and property access roads.
	A6.3 Building envelopes are sited to minimise the need to remove or otherwise impact on

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Performance Criteria	Acceptable Solutions
	important habitat trees such as hollow-bearing trees.
P7.1 Watercourses and riparian lands are protected to minimise the impact of development on the wider catchment and the biodiversity values of the area.	A7.1 Proposed subdivision boundaries do not cross watercourses <u>and will minimise impact on riparian buffers.</u> A7.2 New watercourse crossings are avoided or minimised.
P7.2 Watercourse crossings are located and designed to have minimal impact on biodiversity, water quality and hydrology.	A7.3 Existing crossings are utilised wherever possible and upgraded as necessary to comply with the relevant specifications. A7.4 A 30 metre vegetated riparian buffer comprising a 20 metre core riparian zone and a 10 metre vegetated buffer, is provided on both sides of the watercourse (refer to the applicable Supporting Map). i. The riparian buffer will be fenced off and maintained as native bushland. Cleared areas will be rehabilitated / regenerated. ii. <u>Overlap of APZs onto riparian land will be avoided except where shown on Supporting Map, where it will be limited to the outer 10 m and be offset by increasing the riparian buffer elsewhere on the Lot by at least an equivalent area.</u>

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**5.3 On-site effluent management**

The Falls Creek/Woollamia area is not connected to reticulated sewer and will not be in the foreseeable future. Hence, household wastewater must be managed on each lot. As part of the planning proposal process, a strategic onsite wastewater assessment was completed for the subject land. The findings and recommendations are incorporated into the following provisions.

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In summary, the soils within the subject land are generally:

- are at least 1,000mm deep;
- are duplex (textural contrast) soils comprising a sandy loam topsoil and a light to medium clay subsoil;
- are strongly to moderately acidic;
- are not saline;
- are non-sodic;
- are not significantly dispersive;
- are moderately drained on crests and higher side slopes but less well drained on lower slopes where grey mottling occurs in the clay subsoil;

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- are not suited to disposal of primary treated effluent in an absorption system because of their low permeability;
- have a moderate phosphorous sorption capacity in the topsoil and a high phosphorous sorption capacity in the subsoil; and
- have a low cation exchange capacity in the topsoil and a moderate cation exchange capacity in the subsoil.

While this Chapter contains specific requirements derived from the Strategic Water Cycle Assessment, Chapter G8 provides generic guidelines and requirements for onsite sewage management (e.g. minimum buffers / setbacks). When preparing onsite effluent management information to support your development application, you must address any applicable requirements in Chapter G8 as well as those below.

**5.3.1 Objectives**

- Ensure that onsite effluent management is given appropriate consideration in the design of subdivision layouts and the design and siting of individual dwellings.
- Minimise the risk to public health.
- Prevent the deterioration of land and decline in vegetation quality through soil structure degradation, salinisation, waterlogging, chemical contamination or soil erosion.
- Protect ground and surface waters from contamination from any flow from treatment systems and land application areas.
- Conserve water resources and reuse domestic wastewater (including nutrients, organic matter and water) where possible and within the constraints of other performance objectives.
- Protect community amenity.

**5.3.2 Performance criteria and acceptable solutions – Onsite effluent management**

**Note:** Your application must consider any relevant provisions in:

- Chapter G8: Onsite Sewage Management

Performance Criteria	Acceptable Solutions
P8 Effluent will be treated to at least secondary standard before land application.	A8.1 Effluent will be treated by a NSW Health accredited aerated wastewater treatment system (AWTS) or equivalent that is compatible with the soil characteristics of the land.

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Performance Criteria	Acceptable Solutions
<p>P9.1 Treated effluent is applied to an appropriately sized and located effluent application area (EAA) to prevent adverse health and environmental impacts.</p> <p>P9.2 The EAA will be set up to facilitate maintenance and minimise the risk of failure.</p>	<p>A9.1 Treated effluent will be applied to a dedicated EAA via a pressurised or dose-loaded subsurface application system.</p> <p>A9.2 All components of the application system will be 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.</p> <p>A9.3 The size of the EAA is based on the most limiting factor (i.e. whichever is largest) determined from water and nutrient (nitrogen and phosphorus) balance calculations.</p>
<p><b>Notes:</b></p> <ol style="list-style-type: none"> <li>1. Sub-surface irrigation is generally preferred over surface irrigation, particularly on slopes greater than 6%.</li> <li>2. The proposal must comply with all other requirements of Chapter G8: Onsite Sewage Management, <u>including provision of a reserve area</u>.</li> <li>3. Disinfection is likely to be required to comply with public health standards. Refer to NSW Health for current standards.</li> <li>4. The designer of the effluent application areas must have appropriate professional indemnity insurance for the system design.</li> <li>5. 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).</li> <li>6. It will be beneficial to spread a commercially available organic soil blend that conforms to AS4419 ("Soils for landscaping and garden use – Organic soil") across the effluent application area, particularly if the topsoil depth is 200mm or less.</li> </ol>	
<p>P10.1 Existing systems do not pose a risk to human health and the downstream environment.</p> <p>P10.2 Existing systems will not be compromised by the subdivision and/or development.</p>	<p>A10.1 Existing systems <u>affected by the proposed subdivision</u> that are determined to be failing (i.e. effluent is coming to the surface) will be upgraded to <u>ensure compliance with this section and Chapter 8</u>.</p> <p>A10.2 The location and description of existing system (including required buffer distances) is shown on the subdivision plan and is contained within the lot that encompasses the existing dwelling.</p>

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Performance Criteria	Acceptable Solutions
	A10.3 Stormwater generated from the subdivision or subsequent development will be diverted around the existing onsite effluent system and dispersed appropriately on the same lot.
P11 EAAs will not be located on poorly drained land or land affected by stormwater ingress.	<p>A11.1 A diversion drain will be provided upslope of the EAA to prevent stormwater and/or groundwater ingress. Refer to Figure 5.</p> <p>A11.2 The boggy area identified at No. 111 Woollamia Road will not be used for onsite effluent application.</p> <p>A11.3 Alternatively to A11.2, the boggy area identified at No. 111 Woollamia Road will be remediated in accordance with a hydrological / geotechnical assessment prepared by a practicing stormwater / geotechnical engineer.</p>

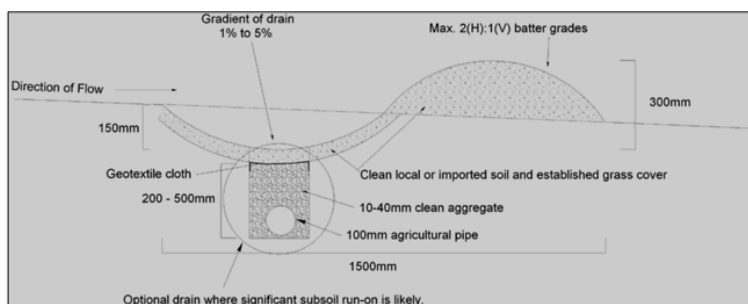


Figure 5 - Diversion drain cross section

#### 5.4 Stormwater management and flooding

The subject land drains to Currumbene Creek via wetlands which are protected under State Environmental Planning Policy SEPP 14. Currumbene Creek flows into Jervis Bay at Huskisson and its tidal extent forms part of the Jervis Bay Marine Park.

The controls in this section are partly based on the recommendations of a Strategic Water Cycle Assessment (SWCA) to protect downstream environments and ensure that development has a neutral or beneficial effect on water quality (NorBE). This is achieved by incorporating Water Sensitive Urban Design (WSUD) principles into the design of subdivisions and subsequent developments. WSUD principles encourage the treatment,



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use and re-use of stormwater in a way which mimics and is sensitive to the natural hydrology.

Parts of the subject land are flood prone. Confining structures to within the building lines shown on Supporting Maps 1 and 2 will ensure flood prone land is avoided. However, four properties, namely No.'s 18, 21 and 23 Seangood Road and No. 111 Woollamia Road, will require watercourse crossings. These watercourse crossings **must** be designed and built to ensure the safety of residences and emergency services personnel without exacerbating flooding on adjoining land or damaging the natural environment. The Department of Primary Industries (Office of Water) should also be consulted to determine if the proposed works require a controlled activity approval (CAA) under section 91 of the *Water Management Act, 2000*.

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**5.4.1 Objectives**

- i. **Ensure** stormwater runoff from new development has a neutral or beneficial effect on the water quality and ecological condition of sensitive downstream environments.
- ii. **Ensure that development does not increase potential flood risks to people, property and the environment.**

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**5.4.2 Performance criteria and acceptable solutions – Stormwater management**

**Note:** Your application must consider any relevant provisions in:

- Chapter G2: Sustainable Stormwater Management and Erosion/Sediment Control
- Chapter G9: Development on Flood Prone Land
- Chapter G11: Subdivision of Land

Performance Criteria	Acceptable Solutions
P11 Stormwater runoff quality will be equivalent to, or better than pre development runoff quality.	<p>A11.1 A Water Cycle Management Study (WCMS) accompanies each subdivision application demonstrating that the development will have a neutral or beneficial effect (NorBE) on water quality.</p> <p>A11.2 The NorBE assessment uses MUSIC (Model for Urban Stormwater Improvement Conceptualisation) modelling to show that the export of total nitrogen (TN), total phosphorus (TP), or total suspended sediment (TP) in stormwater will not increase.</p> <p><b>Note:</b> The WCMS must describe the sites hydraulic conditions pre and post development, taking into account changes to imperviousness as a result of dwellings and associated structures, driveways, paving etc, and any</p>

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Performance Criteria	Acceptable Solutions
	stormwater management measures that would be installed.
	A11.3 As part of the WCMS the responsibilities for the ongoing management of the storm water management measures clearly identified and form part of a subsequent Operational Environment Management Plan (OEMP) <u>and on the property title via a section 88B restriction as to user.</u>
P12 A pre-development hydrological regime is maintained.	<p>A12.1 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 bushfire fighting requirements.</p> <p>A12.2 Rainwater tank overflow / roof runoff is directed into a stormwater infiltration trench or rain garden. The infiltration trench /rain garden shall:</p> <ul style="list-style-type: none"> <li>i. <u>Have</u> a surface area of 5 m<sup>2</sup> for every 100 m<sup>2</sup> of roof/impervious area.</li> <li>ii. <u>Have</u> the capacity to store a minimum of 1.75 m<sup>3</sup> of stormwater for every 100 m<sup>2</sup> of roof/impervious area. This may be achieved in any number of ways including gravel filled trenches, rein drains, plastic cells or a combination. Clean washed aggregate (10-20 mm) shall be assumed to have a void ratio of 0.35 <u>to 1</u>.</li> <li>iii. <u>Have</u> 200 mm depth of storage above the surface of the trench.</li> <li>iv. <u>Include</u> a sediment trap on the inlet where accepting flows other than from a rainwater tank.</li> <li>v. <u>Be</u> rectangular in shape with a minimum length to width ratio of 5:1 and be orientated such that the long axis of the trench is parallel to the contour of the land.</li> <li>vi. <u>Be</u> bound by a hard landscaped edge, such as treated pine sleepers or concrete edging, in order to protect the long term integrity of the surface storage component. The downslope edge shall be level and at natural ground level in order to evenly disperse overflows onto the adjacent ground surface.</li> <li>vii. <u>Be</u> located downslope of the dwelling and in such a manner so as not to cause nuisance to adjacent properties.</li> </ul>

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Performance Criteria	Acceptable Solutions
	<p>viii. <b>Not</b> be located any closer than 5m from any building or property boundary.</p> <p><b>Notes:</b></p> <ol style="list-style-type: none"> <li>1. The bed of the trench is to be level.</li> <li>2. Top soil removed can be used for landscaping.</li> <li>3. Clay subsoil not to be spread over the top soil.</li> <li>4. (Further information and technical specifications is provided in Chapter G2.)</li> <li>5. Onsite stormwater infiltration disposal system to comply with AS1289.</li> </ol> <p>A12.3 Runoff from hardstand areas is collected in a vegetated swale and delivered to an on-site stormwater infiltration trench or rain garden before release.</p> <p>A12.4 Alternatively to A12.2 and/or A12.3, runoff could be directed to a small dam sized to meet the property's harvestable right (0.115 ML/ha) and used for garden irrigation.</p> <p>A12.5 The development will not alter runoff behavior on adjoining land.</p> <p><b>Note:</b> Where a road or right of way (ROW) is constructed, drainage must be provided in accordance with:</p> <ul style="list-style-type: none"> <li>• Chapter G2: Sustainable Stormwater Management and Erosion/Sediment Control</li> <li>• Chapter G11: Subdivision of Land</li> </ul>
P13.1 Driveways are designed and constructed to minimise impact on hydrology and water quality.	A13.1 Within the property boundary, the driveway will:
P13.2 Appropriate documentation is submitted for driveways.	<ol style="list-style-type: none"> <li>i. Generally have a width of 3 m unless required to be wider to accommodate fire fighting vehicles.</li> <li>ii. Have a minimum cross fall of 3% to facilitate drainage and prevent longitudinal flow.</li> <li>iii. As a minimum, be constructed of compacted gravel (DGB 20 or equivalent) from an imported source. (Reinforced concrete, pavers or bitumen surface are all acceptable.)</li> <li>iv. Drain to vegetated swales with appropriate runoff dispersion, or table drains which terminate in small raingardens.</li> </ol> <p>A13.2 The driveway crossing is designed generally in accordance with Council's Engineering Design Specifications using:</p>

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Performance Criteria	Acceptable Solutions
	<ul style="list-style-type: none"> <li>i. A dish crossing where the swale or table drain is shallow enough.</li> <li>ii. A pipe, only where the depth and grade of the swale or table drain are suitable.</li> <li>iii. If the road is sealed, the driveway crossing must also be sealed.</li> </ul> <p><b>Notes:</b></p> <ol style="list-style-type: none"> <li>1. Longitudinal grade of the swale must be 3% to 4% to allow inlet and outlet erosion control works.</li> <li>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.</li> <li>3. A swale longitudinal section will also be required where a pipe crossing is requested.</li> <li>4. The pipe is to be sized for the 20% AEP storm flow (1:5 year ARI) for the swale at the location of the driveway or be a minimum of 375 mm diameter (whichever is the greater). Calculations by a qualified drainage engineer (or suitably experienced surveyor) are to be provided with the application.</li> <li>5. The design is to be approved by either the Development Services Manager or delegate prior to any works within the road reserve being carried out. All construction works will require inspection prior to relevant stages of construction.</li> <li>6. Compliance with AS2890.1 will not guarantee that the driveway crossing suits all makes and models of vehicles.</li> <li>7. The existing road shoulder must not be raised or filled to accommodate a pipe crossing.</li> <li>8. An approval under section 138 of the Roads Act will be required from Council prior to any work commencing.</li> </ol>
P14.1 Watercourse crossings meeting appropriate safety standards and are designed to withstand flood waters.	<p>A14.1 Road surface level is at least 10% AEP.</p> <p>A14.2 Crossings are designed to enable emergency vehicles to safely cross thus "Water depth – velocity product" shall not exceed 0.3 m<sup>2</sup>/s for 1% AEP flood event for pipe/culvert overtopping.</p>
P14.2 Flooding will not be exacerbated.	<p>A14.3 Road surfaces below 1% AEP are sealed.</p> <p>A14.4 Flood warning signs and depth indicators will be provided in accordance with AS1472.</p> <p>A14.5 A hydraulic impact assessment prepared by a suitably qualified hydraulic engineer</p>

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Performance Criteria	Acceptable Solutions
	<p>demonstrates that the development will not increase flood hazard or flood damage to other properties, or adversely affect flood behaviour for a 5% AEP up to the PMF scenario.</p> <p><b>Notes:</b></p> <ol style="list-style-type: none"> <li>1. Technical specifications are provided in Chapter G2: Sustainable Stormwater Management and Erosion/Sediment Control.</li> <li>2. The Department of Primary Industries (Office of Water) should also be consulted to determine if the proposed works require a controlled activity approval (CAA) under the Water Management Act.</li> </ol>
P15 Erosion prevention measures are used to minimise the impact of development on the quality of the water leaving the development site.	<p>A15.1 Where less than 2,500 m<sup>2</sup> of disturbance is proposed, applications are accompanied by an erosion and sediment control plan (ESCP). Where more than 2,500 m<sup>2</sup> is proposed, applications are accompanied by a soil and water management plan (SWMP) as per the 'Blue Book' (Landcom, 2004).</p> <p>A15.2 The extent of vegetation removal and soil disturbance is minimised.</p> <p>A15.3 Road batter slopes shall not exceed 1 in 4.</p> <p>A15.4 Cut and fill shall be minimised to limit the duration and extent of disturbance and the need for stockpiling of material.</p>

**5.5 Miscellaneous**

P16 Driveway crossings are located and designed to enable safe access/egress from/to the public road.	<p>A16.1 The number of new driveway crossings is minimised through shared driveways where the opportunity exists. Refer to Supporting Maps 1 and 2.</p> <p>A16.2 Sight distance will be improved by trimming / removing vegetation at the locations shown on Supporting Map 2.</p> <p>A16.3 Details of the driveway are submitted with any dwelling applications including:</p> <ol style="list-style-type: none"> <li>i. Location of the driveway on the site plan.</li> <li>ii. A design of indented rural access as per Figure 2.</li> </ol> <p><b>Notes:</b></p>
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		<ol style="list-style-type: none"> <li>1. <u>Clearing of vegetation to improve sight distances must be included and assessed as part of the subdivision application.</u></li> <li>2. Any works within the road reserve, including vegetation removal requires approval under section 138 of the Roads Act.</li> <li>3. Council's Traffic Unit advised that the following measures should be considered (subject to approval by the Shoalhaven Traffic Committee and Council) at Seasongood Road: <ul style="list-style-type: none"> <li>• 'BS' type broken separation line marking should be replaced by 'BB' type barrier lines at the bend adjacent to No. 18 Seasongood Road; and</li> <li>• the 80 km/hour speed sign located immediately to the west of the driveway at No. 13 Seasongood Road should be moved 20 km further west.</li> </ul> </li> </ol>
P17	Applications are supported by a description of the site's history to enable the contamination risk to be evaluated.	<p>A17.1 The site history clearly demonstrates that site activities have been non-contaminating.</p> <p>A17.2 Alternatively to A17.1, where contaminating activities are suspected or known to have occurred, or if the site history is incomplete, the application is supported by a preliminary site contamination assessment. (Depending on the findings of the preliminary site contamination assessment, a detailed site contamination assessment may be required.)</p>

## 6 Advisory Information

### 6.1 Other legislation or policies you may need to check

**Note:** This section is not exclusive and you may be required to consider other legislation, policies and other documents with your application.

<b>Council Policies &amp; Guidelines</b>	<ul style="list-style-type: none"> <li>• Contributions Plan</li> <li>• Rural Wastewater Supply Policy</li> <li>• Driveway Access to Private Properties</li> </ul>
<b>External Policies &amp; Guidelines</b>	<ul style="list-style-type: none"> <li>• Planning for Bushfire Protection 2006</li> <li>• Standards for Asset Protection Zones (NSW Rural Fire Service)</li> </ul>
<b>Legislation</b>	<ul style="list-style-type: none"> <li>• <i>Environmental Planning and Assessment Act 1979</i></li> <li>• <i>Rural Fires Act 1997</i></li> <li>• <i>Water Management Act 2000</i></li> <li>• <i>Threatened Species Conservation Act 1995</i></li> </ul>

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