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1 March 2007

John Delany  
Acting Manager Development Control Services  
NSW Rural Fire Service  
Locaked Mail Bag 17  
GRANVILLE NSW 2142

Dear John,

**Re: Proposed retirement village for Anglican Retirement Villages at Sandon Point  
Meeting with NSW Rural Fire Service 8 February 2007**

I refer to the meeting that took place at NSW Rural Fire Service Head Office with Anglican Retirement Villages (ARV) and BES at which you were present. The meeting was held to discuss the assessment of the proposed development under the 'Planning for Bushfire Protection Guidelines 2001' document. The proposed development is a part 3A Major Project and received Concept Plan Approval from the Minister in December 2006.

ARV is now proceeding with the preparation of a Project Plan application. The ARV proposal is a retirement village involving the retention of a turpentine forest remnant and creation of a riparian area known as Cooksons Creek.

Provided below is a summary of the outcomes of the meeting. This letter seeks to confirm RFS requirements so as to assist the preparation of a Project Application to be submitted to the Department of Planning (DoP). We anticipate DoP will refer the Project Application to RFS for final comment.

At the meeting it was agreed:

- 1) The subject land is not mapped as Bushfire Prone Land. This was confirmed at the meeting from a printout of the Wollongong Bushfire Prone Land Map.
- 2) As the subject land is not mapped as Bushfire Prone, there is no legal requirement for DoP to refer the application to RFS for comment under the *Environmental Planning and Assessment Act 1979*.
- 3) The nature, size, extent and management of the riparian zone that will be created as part of the development (as shown in the attached Revegetation and Management Principles document prepared by Cumberland Ecology, and cross sections prepared by EDAW) is

such that it will pose a very low threat to the surrounding proposed retirement village, and will not require APZs under the 'Planning for Bushfire Protection Guidelines 2001'.

- 4) The nature, size, extent and management of the Turpentine Forest (as shown in the attached Revegetation and Management Principles document prepared by Cumberland Ecology, and cross sections prepared by EDAW) is such that it will not require an APZ under the 'Planning for Bushfire Protection Guidelines 2001'.
- 5) Based on points 1-4 above, if asked to provide comment, the RFS would request the provision of 'defendable space' between the riparian zone and Turpentine Forest and the development.
- 6) Defendable space is essentially a space or workable area reserved between a structure and a hazard where property protection operations can be based, such as thoroughfare and manoeuvring of vehicles, fire fighter access, running of hoses, and access to hydrants. It differs from an APZ, as it does not provide a larger area between the structure and the hazard where a decreased amount of fuels provides a reduction in the intensity of an approaching fire. Defendable space can be designed for vehicles or fire fighters on foot depending on the bushfire threat and access points back to the internal road system.
- 7) Defendable space able to support a vehicle is preferred for longer stretches of development interface lacking regular access intervals. Such access should be a minimum 6 m in width between the most external building point of a dwelling and the vegetation. The 6 m is to comprise of a 4 m trafficable surface with an additional 1 m of cleared space either side (i.e. no long grass, vegetation or other obstructions such as buildings, fences/bollards) to allow fire fighters to operate and pass around a vehicle. The trafficable surface need not be a sealed pavement, but at least be trafficable in all weather conditions. A turning facility is required where a through road is unachievable.
- 8) Defendable space designed for pedestrian fire fighter use only can be utilised in areas where access is good such as regular, short intervals from the development interface back to the internal road system. An example of where this is acceptable is along the southern side of proposed buildings along the northern side of Cooksons Creek where regular and relatively short intervals provide good access to the development interface allowing fire suppression hoses to reach all sections of the interface. Pedestrian fire fighter access is to be a minimum 4 m in width between the most external building point of a dwelling and the vegetation. The 4 m is to be clear of vegetation (apart from mown grass) and obstructions such as fences etc.
- 9) The defendable space (development interface) is to have an adequate reticulated water supply with strategic and regular hydrant locations at access points.
- 10) A defendable space plan prepared using the principles in points 6, 7, 8 and 9 above for the proposed retirement village is attached.

ARV requests confirmation of your initial advice by 6 March 2007 that APZ's are not required and that this is consistent with the 'Planning for Bushfire Protection Guidelines 2001' document. ARV requires your confirmation so it can proceed with its option to purchase the site. Please don't hesitate to contact me to discuss if this would be of assistance.

Please do not hesitate to call me on the numbers above to discuss the matter further.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'D. Peterson', written in a cursive style.

David Peterson

**Senior Bushfire Planner**



2<sup>nd</sup> March 2007

## **REVEGETATION and MANAGEMENT PRINCIPLES for SANDON POINT, ARV land**

### **COOKSONS and TRAMWAY CREEKS and TURPENTINE FOREST**

These management principles were prepared for attachment to a submission letter to the Rural Fire Service for their assessment of the proposed vegetation structure and potential fire hazard. The principles outline the proposed planting and treatment of vegetation along riparian corridors and within the Turpentine Forest on the ARV Sandon Point Site.

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#### **PROPOSED VEGETATION STRUCTURE**

The Department of Natural Resources' Riparian Corridor Study (2004) suggests that the overarching objective of riparian plantings (in the Illawarra) is to create a sub-tropical rainforest vegetation type with associated enclosed canopy. The vegetation structure proposed by Cumberland Ecology for the riparian zones at Sandon Point conforms to this objective by replacing introduced woody weed species with native species typical of the moist forest communities in surrounding riparian corridors and associated Endangered Ecological Communities (Sainty and Associates 2001).

Much of the central riparian zone will be treated as Freshwater Wetlands which are characterised by a scarcity or complete absence of woody plant species and dominated by herbaceous plants such as *Phragmites australis* and *Typha orientalis*. Swamp Sclerophyll Forest has rainforest elements including species such as *Livingstonia australis*, *Glochidion ferdinandi* and *Bechnum camfieldii* and is characterised by an open to dense tree layer of eucalypts and paperbarks up to >25m height. The canopy cover and density of Swamp Sclerophyll Forest species in the riparian areas will become progressively thinner towards the outer edge of the corridor to facilitate view shafts into the corridor in accordance with the DNR study.

#### **REVEGETATION**

In keeping with the species composition of the communities already present, suitable species have been selected for planting, with corresponding planting densities appropriate for these communities, as described by the NSW Scientific Committee (2004) and recommended by Sainty and Associates Pty Ltd Wetland

Specialists (2001).

#### Plant Species to Be Selected

See **EDAW Cross-section for Cookson's Creek and Tramway Creek (EDAW 2007)** for exemplary species to be planted within riparian zones. Appropriate native seeds will be collected for propagation and future re-vegetation prior to clearing of any species.

#### Density of Planting

Canopy species are significant for food, habitat value and structural protection for other species. A recommended planting density based on information from Sainty and Associates Pty Ltd (wetland specialists) is:

Trees:	1 in 4 m <sup>2</sup>	Shrubs	1 in 2 m <sup>2</sup> to 1 in 3 m <sup>2</sup>
Groundcovers	1 in 0.75m <sup>2</sup>	Reeds	1 in 0.75 m <sup>2</sup>

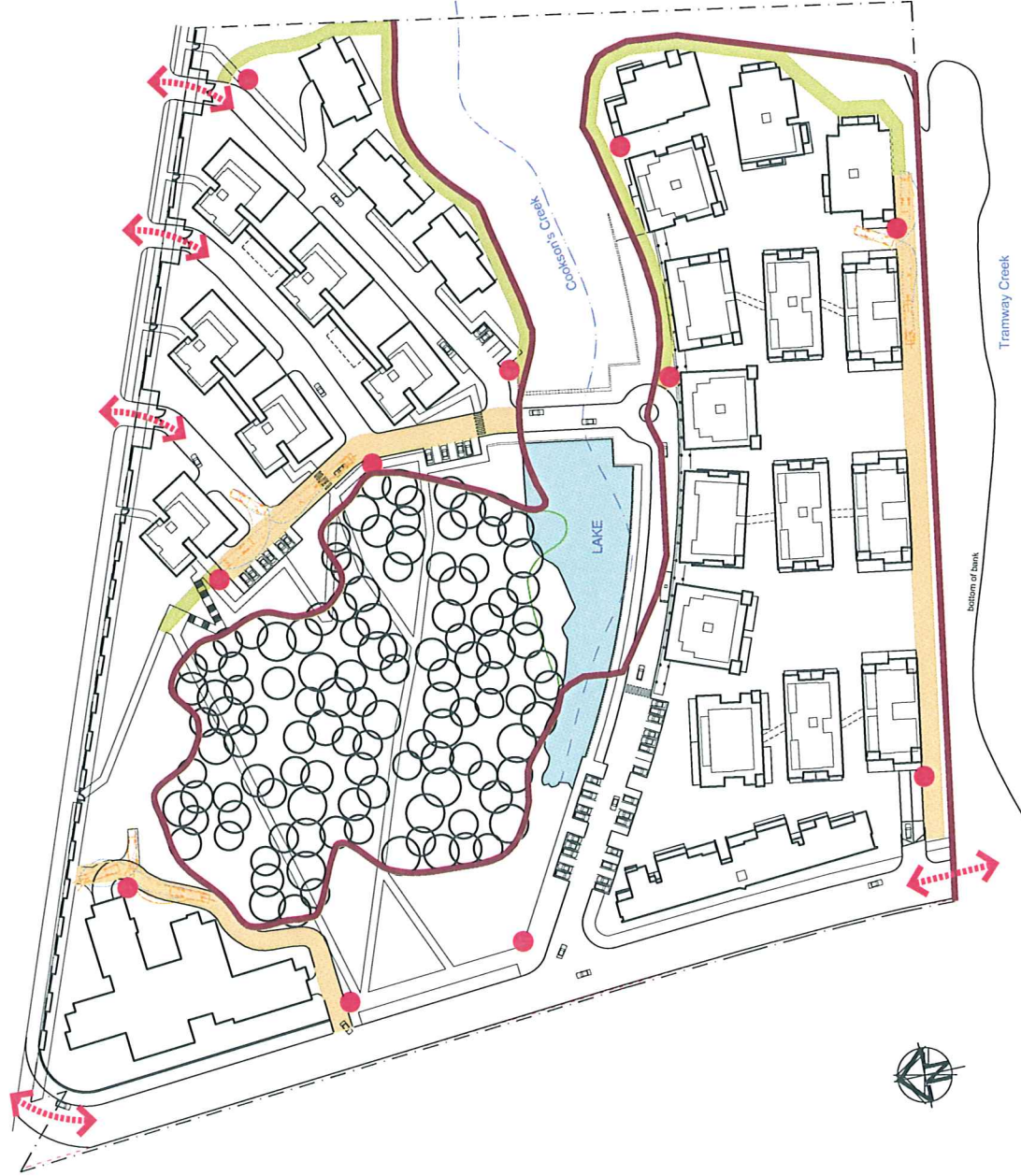
Proposed planting of canopy trees will be in clumps of touching canopy, with open space between canopy clumps along the outer edges allowing for the view shafts recommended by the DNR study. **EDAW Cross-section and Plan for Cookson's Creek and Tramway Creek (EDAW 2007)** are given as exemplary cross-sections showing general vegetation structure and planting densities for riparian zones

### **MANAGEMENT**

The ecological community of the Turpentine Forest is an open forest community on the threshold of 1ha area which has woody weeds encroaching on the outskirts of the vegetation patch. Ongoing weed maintenance programs will be established to remove these woody species hence reducing the fuel load in the 1ha area and improving the integrity of the ecological community. Separation of the Turpentine Forest from the riparian vegetation along Cooksons Creek will be maintained by the bridge crossing over the wetland area as described in the final concept plan.

Riparian vegetation will also be subject to ongoing weed maintenance programs to reduce the encroachment of introduced species. Contract bush regeneration teams will be employed to monitor the riparian zones and remove woody weeds and herbaceous weeds where necessary. Structure and density of the Swamp Sclerophyll Forests beside the creeks will be preserved, and buffer zones outside the riparian zone will be managed such that vegetation heights are kept to pedestrian defensible space.





Scale 1:1500

[illegible]

# SANDON POINT NORTH

## COOKSON CREEK

MACROPHYTE MIX (M)  
*Gallinia sieberiana*  
*Juncus kraussii*  
*Typha orientalis*  
*Phragmites australis*

VERGE MIX (V)  
*Lomandra longifolia* (in small clumps to allow clear access)  
*Imperata cylindrica* (in small clumps to allow clear access)  
*Dianella caerulea* (in small clumps to allow clear access)  
*Dichondra repens*  
*Viola hederacea*  
*Hibbertia scandens*

TERRESTRIAL MIX (T)  
*Carex appressa*  
*Isolepis nodosa*  
*Rennetia rubicunda*  
*Imperata cylindrica*  
*Isachne globosa*

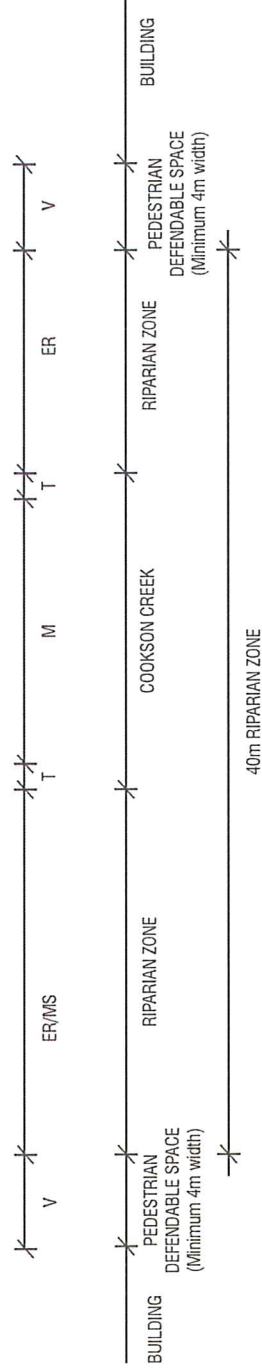
MELALEUCA SCRUBLAND MIX (MS)  
**TREES**  
*Acmena smithii*  
*Casuarina glauca*  
*Eucalyptus robusta*  
*Glochidion lerdnandi*  
*Melaleuca styphelioides*

EUCALYPTUS ROBUSTA MIX (ER)  
**TREES**  
*Acmena smithii*  
*Casuarina glauca*  
*Eucalyptus robusta*  
*Eucalyptus botryoides*  
*Glochidion lerdnandi*  
*Livisona australis*  
*Melaleuca styphelioides*

**SHRUBS**  
*Acacia longifolia*  
*Melaleuca ericifolia*  
*Melaleuca linariifolia*  
*Dodonea triquetra*

UNDERSTOREY GRASSES/GROUNDCOVERS  
*Hibbertia scandens*  
*Lomandra longifolia*  
*Themeda australis*  
*Blechnum indicum*  
*Persicaria strigosa*  
*Isachne globosa*

UNDERSTOREY GRASSES/GROUNDCOVERS  
*Hibbertia scandens*  
*Lomandra longifolia*  
*Themeda australis*  
*Gallinia sieberiana*  
*Juncus kraussii*  
*Typha orientalis*  
*Phragmites australis*





# SANDON POINT NORTH

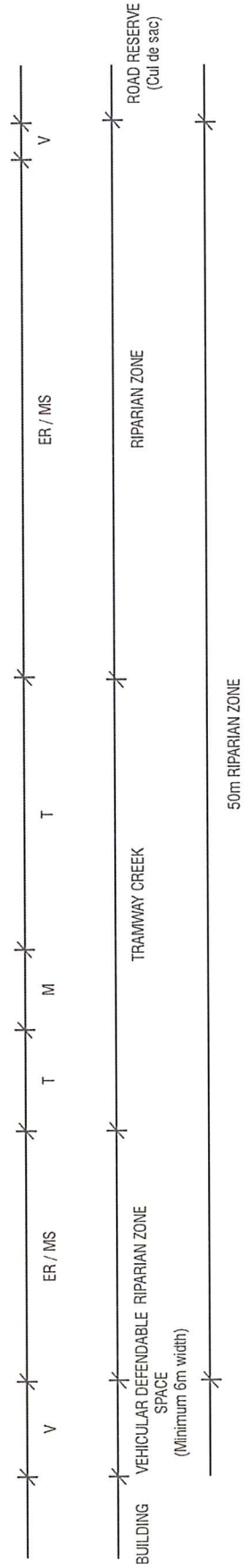
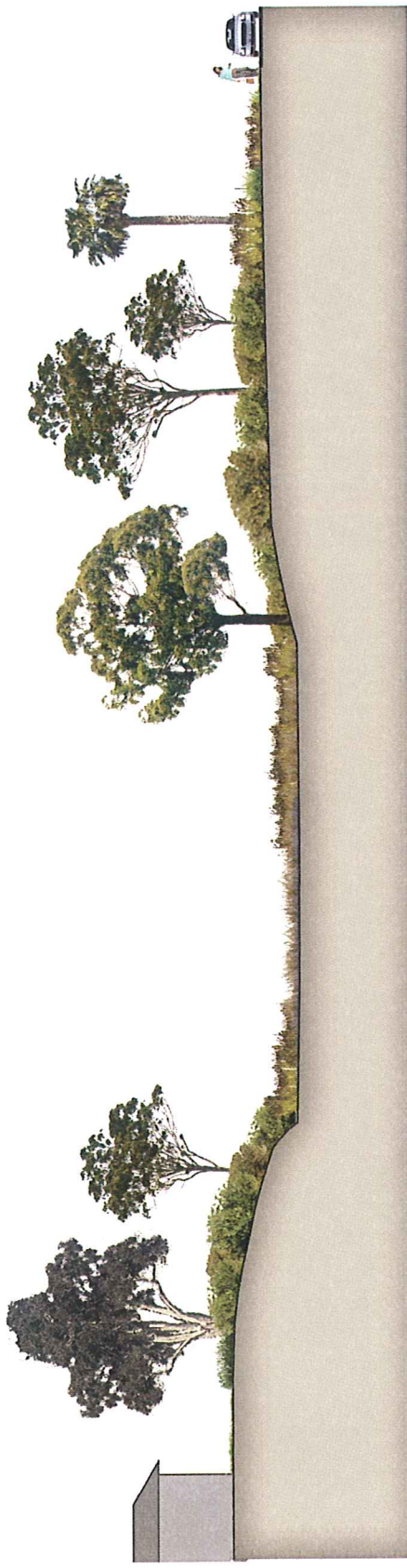
## COOKSON CREEK





# SANDON POINT NORTH TRAMWAY CREEK

EUCALYPTUS ROBUSTA MIX (ER)	MELALEUCA SCRUBLAND MIX (MS)	TERRESTRIAL MIX (T)	VERGE MIX (V)	MACROPHYTE MIX (M)
<p>TREES</p> <p><i>Acmena smithii</i> <i>Casuarina glauca</i> <i>Eucalyptus robusta</i> <i>Eucalyptus botryoides</i> <i>Glochidion ferrandi</i> <i>Livistona australis</i> <i>Melaleuca styphelioides</i></p> <p>SHRUBS</p> <p><i>Acacia longifolia</i> <i>Melaleuca ericifolia</i> <i>Melaleuca linariifolia</i> <i>Dodonea triquetra</i></p> <p>UNDERSTOREY GRASSES/GROUNDCOVERS</p> <p><i>Hibbertia scandens</i> <i>Lomandra longifolia</i> <i>Themeda australis</i> <i>Blechnum indicum</i> <i>Persicaria strigosa</i> <i>Isachne globosa</i></p>	<p>TREES</p> <p><i>Acmena smithii</i> <i>Casuarina glauca</i> <i>Eucalyptus robusta</i> <i>Glochidion ferrandi</i> <i>Melaleuca styphelioides</i></p> <p>SHRUBS</p> <p><i>Acacia longifolia</i> <i>Melaleuca ericifolia</i> <i>Melaleuca linariifolia</i></p> <p>UNDERSTOREY GRASSES/GROUNDCOVERS</p> <p><i>Hibbertia scandens</i> <i>Lomandra longifolia</i> <i>Themeda australis</i> <i>Blechnum indicum</i> <i>Persicaria strigosa</i> <i>Isachne globosa</i></p>	<p><i>Carex appressa</i> <i>Isolepis nodosa</i> <i>Kennedia rubicunda</i> <i>Imperata cylindrica</i> <i>Isachne globosa</i></p>	<p><i>Lomandra longifolia</i> (in small clumps to allow clear access) <i>Imperata cylindrica</i> (in small clumps to allow clear access) <i>Dianella caerulea</i> (in small clumps to allow clear access) <i>Dicohandra repens</i> <i>Viola hederacea</i> <i>Hibbertia scandens</i></p>	<p><i>Galinia sieberiana</i> <i>Juncus kraussii</i> <i>Typha orientalis</i> <i>Phragmites australis</i></p>





SANDON POINT NORTH  
TRAMWAY CREEK

