

Notice of Application for a Planning Permit

Cardinia
ADVERTISED MATERIAL
 Planning Application: T210451
 Date Prepared: 10 April 2026

This copied document is made available for the purpose of the planning process as set out in the Planning and Environment Act 1987. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.

The land affected by the application is located at:	L1 TP100357 61 Livio Drive, Gembrook VIC 3783
The application is for a permit to:	Use and development of the land for a dwelling, construction of an outbuilding (shed), native vegetation removal and earthworks

A permit is required under the following clauses of the planning scheme:

35.06-1	Use of the land for a Dwelling
35.06-5	Construct a building or construct or carry out works associated with a use in Section 2 (Dwelling)
42.01-2	Remove, destroy or lop vegetation
42.01-2	Construct a building or construct or carry out works
44.06-2	Construct a building or construct or carry out works associated with a Dwelling
52.17-1	Remove, destroy or lop native vegetation

APPLICATION DETAILS

The applicant for the permit is:	[REDACTED] Healesville Plants
Application number:	T210451

You may look at the application and any documents that support the application at the office of the Responsible Authority:

Cardinia Shire Council, 20 Siding Avenue, Officer 3809.

This can be done during office hours and is free of charge.

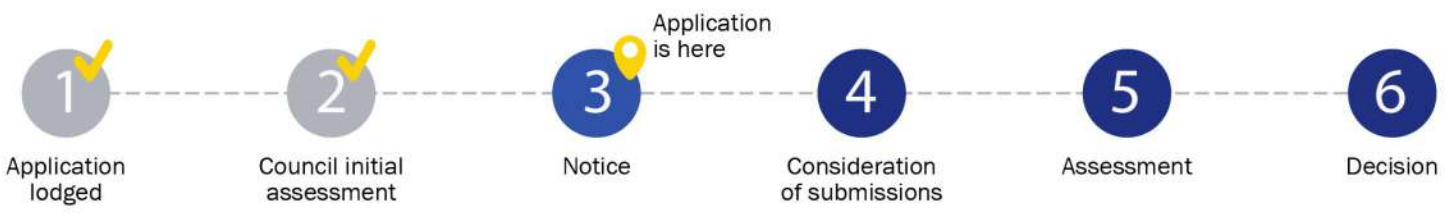
Documents can also be viewed on Council's website at cardinia.vic.gov.au/advertisedplans or by scanning the QR code.



HOW CAN I MAKE A SUBMISSION?

This application has not been decided. You can still make a submission before a decision has been made. The Responsible Authority will not decide on the application before:	28 April 2026
--	----------------------

WHAT ARE MY OPTIONS? Any person who may be affected by the granting of the permit may object or make other submissions to the responsible authority. If you object, the Responsible Authority will notify you of the decision when it is issued.	An objection must: <ul style="list-style-type: none"> be made to the Responsible Authority in writing; include the reasons for the objection; and state how the objector would be affected. 	The Responsible Authority must make a copy of every objection available at its office for any person to inspect during office hours free of charge until the end of the period during which an application may be made for review of a decision on the application.
---	--	---



Application Summary

Portal Reference A2213CE

Basic Information

Proposed Use Development of a house and shed.
Current Use Vacant property.
Cost of Works \$300,000
Site Address 61 Livio Drive Gembrook 3783

Covenant Disclaimer

Does the proposal breach, in any way, an encumbrance on title such as restrictive covenant, section 173 agreement or other obligation such as an easement or building envelope? No such encumbrances are breached

Note: During the application process you may be required to provide more information in relation to any encumbrances.

Contacts

Type	Address	Contact Details
Applicant	[Redacted]	[Redacted]
Owner	[Redacted]	[Redacted]
Preferred Contact	[Redacted]	[Redacted]

Fees

Regulation Fee Condition	Amount	Modifier	Payable
9 - Class 4 More than \$100,000 but not more than \$500,000	\$1,288.50	100%	\$1,288.50
Total			\$1,288.50

Meetings

Meeting Type	Officer Name	Date of Meeting
Pre Application	[Redacted]	13 Apr 2021



Civic Centre
20 Siding Avenue, Officer, Victoria

Council's Operations Centre (Depot)
Purton Road, Pakenham, Victoria



Postal Address
Cardinia Shire Council
P.O. Box 7, Pakenham VIC, 3810

Email: mail@cardinia.vic.gov.au



Monday to Friday 8.30am-5pm
Phone: 1300 787 624
After Hours: 1300 787 624
Fax: 03 5941 3784

Documents Uploaded

Date	Type	Filename
18-06-2021	A proposed floor plan	Floor plan.jpg
18-06-2021	Site plans	Birds eye site plan.PNG
18-06-2021	Proposed elevation plan	Elevations .jpg
18-06-2021	Site plans	Site plans.jpg
18-06-2021	Existing elevation plans	Survey signed.pdf
18-06-2021	Existing floor plan	Gembrook house.png
18-06-2021	Existing elevation plans	Shed elevations.png
18-06-2021	A Copy of Title	Land title 2.PNG
18-06-2021	Encumbrance	Land title 1.PNG
18-06-2021	Overlay Requirements	Overlay 1.jpg
18-06-2021	Overlay Requirements	Overlay2.jpg
18-06-2021	Overlay Requirements	Overlay3.jpg
18-06-2021	Site plans	Birds eye2.jpg
18-06-2021	Encumbrance	Land.jpg
18-06-2021	Overlay Requirements	Land.jpg

Remember it is against the law to provide false or misleading information, which could result in a heavy fine and cancellation of the permit

Lodged By

Site User	[REDACTED]
Submission Date	[REDACTED]

Declaration

[REDACTED] that all the information in this application is true and correct; and the Applicant and/or Owner (if



Civic Centre
20 Siding Avenue, Officer, Victoria

Council's Operations Centre (Depot)
Purton Road, Pakenham, Victoria



Postal Address
Cardinia Shire Council
P.O. Box 7, Pakenham VIC, 3810

Email: mail@cardinia.vic.gov.au



Monday to Friday 8.30am-5pm
Phone: 1300 787 624
After Hours: 1300 787 624
Fax: 03 5941 3784

This copied document is made available for the purpose of the planning process as set out in the Planning and Environment Act 1987. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.

Request to amend a current planning permit application

This form is used to request an amendment to an application for a planning permit that has already been lodged with Council, but which has not yet been decided. This form can be used for amendments made before any notice of the application is given (pursuant to sections 50 / 50A of the *Planning and Environment Act 1987*) or after notice is given (section 57A of the Act).

PERMIT APPLICATION DETAILS

Application No.:	T210451
Address of the Land:	61 LIVIO DRIVE GEMBROOK

APPLICANT DETAILS

Name:	[REDACTED]
Organisation:	HEALESVILLE PLANTS
Address:	PO BOX 1317 HEALESVILLE VIC 3777
Phone:	0438 731 214
Email:	[REDACTED]

AMENDMENT TYPE

Under which section of the Act is this amendment being made? (select one)	
Section 50 - Amendment to application at request of applicant before notice:	<input type="checkbox"/>
Section 50A - Amendment to application at request of responsible authority before notice:	<input type="checkbox"/>
Section 57A - Amendment to application after notice is given:	<input checked="" type="checkbox"/>

AMENDMENT DETAILS

What is being amended? (select all that apply)		
What is being applied for <input type="checkbox"/>	Plans / other documents <input checked="" type="checkbox"/>	Applicant / owner details <input type="checkbox"/>
Land affected <input type="checkbox"/>	Other <input type="checkbox"/>	
Describe the changes. If you need more space, please attach a separate page.		
Add more documents		
- BMP / BMS		
- NVIM / NVE report		
- House plans		
- Arborist report		

ADVERTISED MATERIAL

Planning Application: T210451

Date Prepared: 10 April 2026

This copied document is made available for the purpose of the planning process as set out in the *Planning and Environment Act 1987*. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.

Specify the estimated cost of any development for which the permit is required:

Not applicable

Unchanged

New amount \$

DECLARATION

I declare that all the information in this request is true and correct and the owner (if not myself) has been notified of this request to amend the application.

Name:

Signature:

Date:

LODGEMENT

Please submit this form, including all amended plans/documents, to mail@cardinia.vic.gov.au

You can also make amendments to your application via the Cardinia ePlanning Portal at <https://eplanning.cardinia.vic.gov.au/>

If you have any questions or need help to complete this form, please contact Council's Statutory Planning team on 1300 787 624.

IMPORTANT INFORMATION

It is strongly recommended that before submitting this form, you discuss the proposed amendment with the Council planning officer processing the application.

Please give full details of the nature of the proposed amendments and clearly highlight any changes to plans (where applicable). If you do not provide sufficient details or a full description of all the amendments proposed, the application may be delayed.

No application fee for s50/s50A requests unless the amendment results in changes to the relevant class of permit fee or introduces new classes of permit fees. The fee for a s57A request is 40% of the relevant class of permit fee, plus any other fees if the amendment results in changes to the relevant class (or classes) of permit fee or introduces new classes of permit fees. Refer to the *Planning and Environment (Fees) Regulations 2016* for more information.

The amendment may result in a request for more under section 54 of the Act and/or the application requiring notification (or re-notification). The costs associated with notification must be covered by the applicant.

Council may refuse to amend the application if it considers that the amendment is so substantial that a new application for a permit should be made.

Any material submitted with this request, including plans and personal information, will be made available for public viewing, including electronically, and copies may be made for interested parties for the purpose of enabling consideration and review as part of a planning process under the *Planning and Environment Act 1987*.



Request to amend a current planning permit application



ADVERTISED MATERIAL

Planning Application: T210451

Date Prepared: 10 April 2026

This copied document is made available for the purpose of the planning process as set out in the Planning and Environment Act 1987. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.

This form is used to request an amendment to an application for a planning permit that has already been lodged with Council, but which has not yet been decided. This form can be used for amendments made before any notice of the application is given (pursuant to sections 50 / 50A of the *Planning and Environment Act 1987*) or after notice is given (section 57A of the Act).

PERMIT APPLICATION DETAILS

Application No.:	T210451
Address of the Land:	61 Livio Drive Gembrook

APPLICANT DETAILS

Name:	[REDACTED]
Organisation:	Healesville Plants
Address:	PO Box 1317 Healesville 3777
Phone:	0438 731 214
Email:	healesvilleplants@gmail.com

AMENDMENT TYPE

Under which section of the Act is this amendment being made? (select one)	
Section 50 – Amendment to application at request of applicant before notice:	<input type="checkbox"/>
Section 50A - Amendment to application at request of responsible authority before notice:	<input type="checkbox"/>
Section 57A – Amendment to application after notice is given:	<input checked="" type="checkbox"/>

AMENDMENT DETAILS

What is being amended? (select all that apply)		
What is being applied for <input type="checkbox"/>	Plans / other documents <input checked="" type="checkbox"/>	Applicant / owner details <input type="checkbox"/>
Land affected <input type="checkbox"/>	Other <input type="checkbox"/>	
Describe the changes. If you need more space, please attach a separate page.		
<p>Updated plans have been provided to redesign the dwelling so as to minimise the amount of vegetation required to be removed for the creation of defensible space. The previous building company could not accommodate the changes hence the redesign by a different company. CFA and DEECA have already approved in principle as have council at various meetings. Delays have been due to the arrival of the owners first child! All reports have been updated to reflect the new plans.</p>		

Specify the estimated cost of any development for which the permit is required:

Not applicable Unchanged New amount \$

DECLARATION

I declare that all the information in this request is true and correct and the owner (if not myself) has been notified of this request to amend the application.

Name:

Signature:

Date:

LODGEMENT

Please submit this form, including all amended plans/documents, to mail@cardinia.vic.gov.au

You can also make amendments to your application via the Cardinia ePlanning Portal at <https://eplanning.cardinia.vic.gov.au/>

If you have any questions or need help to complete this form, please contact Council's Statutory Planning team on 1300 787 624.

IMPORTANT INFORMATION

It is strongly recommended that before submitting this form, you discuss the proposed amendment with the Council planning officer processing the application.

Please give full details of the nature of the proposed amendments and clearly highlight any changes to plans (where applicable). If you do not provide sufficient details or a full description of all the amendments proposed, the application may be delayed.

No application fee for s50/s50A requests unless the amendment results in changes to the relevant class of permit fee or introduces new classes of permit fees. The fee for a s57A request is 40% of the relevant class of permit fee, plus any other fees if the amendment results in changes to the relevant class (or classes) of permit fee or introduces new classes of permit fees. Refer to the *Planning and Environment (Fees) Regulations 2016* for more information.

The amendment may result in a request for more under section 54 of the Act and/or the application requiring notification (or re-notification). The costs associated with notification must be covered by the applicant.

Council may refuse to amend the application if it considers that the amendment is so substantial that a new application for a permit should be made.

Any material submitted with this request, including plans and personal information, will be made available for public viewing, including electronically, and copies may be made for interested parties for the purpose of enabling consideration and review as part of a planning process under the *Planning and Environment Act 1987*.



Copyright State of Victoria. This publication is copyright. No part may be reproduced by any process except in accordance with the provisions of the Copyright Act 1968 (Cth) and for the purposes of Section 32 of the Sale of Land Act 1962 (Vic) or pursuant to a written agreement. The information is only valid at the time and in the form obtained from the LANDATA REGD TM System. None of the State of Victoria, LANDATA REGD TM System, Victorian Land Registry Services Pty. Ltd. ABN 86 627 986 396 as trustee for the Victorian Land Registry Services Trust ABN 83 206 746 897 accept responsibility for any subsequent release, publication or reproduction of the information.

REGISTER SEARCH STATEMENT (Title Search) Transfer of Land Act 1958

VOLUME 09627 FOLIO 745

Security Produced

no : 12408753099L
27/01/2021 01:37 PM

ADVERTISED MATERIAL
 Planning Application: T210451
 Date Prepared: 10 April 2026
This copied document is made available for the purpose of the planning process as set out in the Planning and Environment Act 1987. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.

LAND DESCRIPTION

Lot 1 on Title Plan 100357M.
 PARENT TITLE Volume 09471 Folio 047
 Created by instrument L641380R 01/05/1985

REGISTERED PROPRIETOR

Estate Fee Simple

John [REDACTED] 13 RUSSELL ROAD GEMBROOK VIC 3783
 Mrs ROSE LINDA VOLTA OF 5645 GEMBROOK LAUNCHING PLACE ROAD GEMBROOK VIC 3783
 AT958717W 18/01/2021

ENCUMBRANCES, CAVEATS AND NOTICES

MORTGAGE AT958718U 18/01/2021
 WESTPAC BANKING CORPORATION

Any encumbrances created by Section 98 Transfer of Land Act 1958 or Section 24 Subdivision Act 1988 and any other encumbrances shown or entered on the plan set out under DIAGRAM LOCATION below.

DIAGRAM LOCATION

SEE TP100357M FOR FURTHER DETAILS AND BOUNDARIES

ACTIVITY IN THE LAST 125 DAYS

NUMBER		STATUS	DATE
AT953797X (E)	CONV PCT & NOM ECT TO LC	Completed	16/01/2021
AT958716Y (E)	DISCHARGE OF MORTGAGE	Registered	18/01/2021
AT958717W (E)	TRANSFER	Registered	18/01/2021
AT958718U (E)	MORTGAGE	Registered	18/01/2021

-----END OF REGISTER SEARCH STATEMENT-----

Additional information: (not part of the Register Search Statement)

Street Address: 61 LIVIO DRIVE GEMBROOK VIC 3783

ADMINISTRATIVE NOTICES

NIL

eCT Control 16977H ST GEORGE BANK
 Effective from 18/01/2021

DOCUMENT END

TITLE PLAN	EDITION 1	TP 100357M
Location of Land Parish: GEMBROOK Township: Section: Crown Allotment: 14(PT), 15(PT) Crown Portion: Last Plan Reference: LP 4620 Derived From: VOL 9627 FOL 745 Depth Limitation: NIL	Notations ANY REFERENCE TO MAP IN THE TEXT MEANS THE DIAGRAM SHOWN ON THIS TITLE PLAN	
Description of Land / Easement Information		THIS PLAN HAS BEEN PREPARED FOR THE LAND REGISTRY, LAND

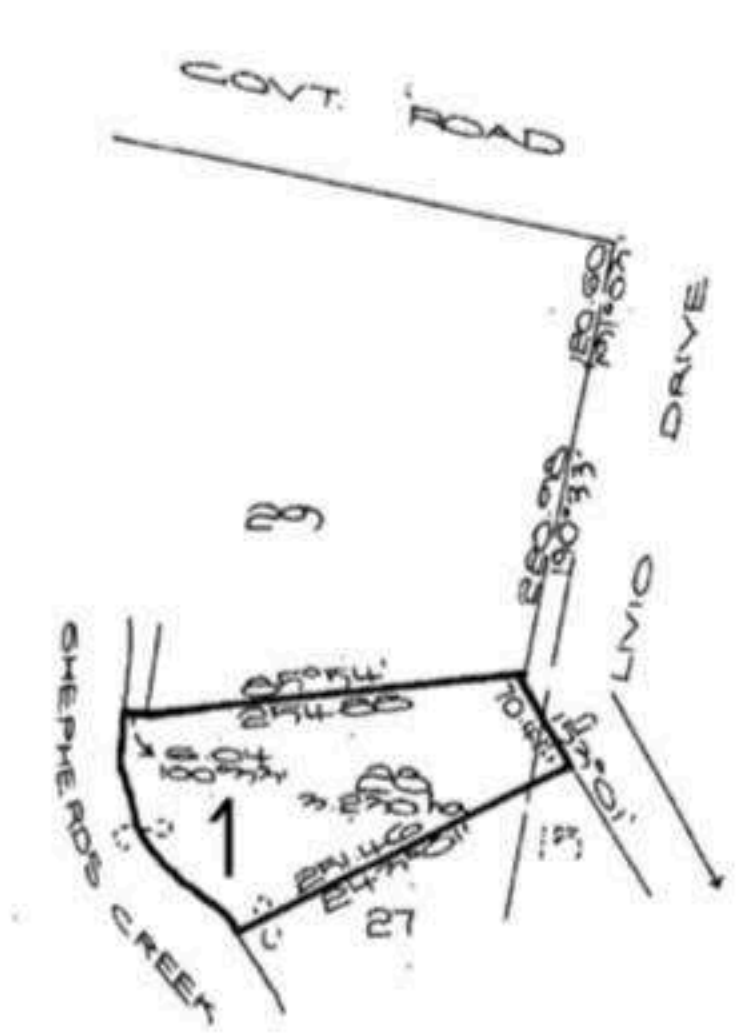
Street Address: 61 LIVIO DRIVE GEMBROOK VIC 3783

ADMINISTRATIVE NOTICES

NIL

eCT Control 16977H ST GEORGE BANK
 Effective from 18/01/2021

DOCUMENT END

TITLE PLAN	EDITION 1	TP 100357M						
<p>Location of Land</p> <p>Parish: GEMBROOK Township: Section: Crown Allotment: 14(PT), 15(PT) Crown Portion</p> <p>Last Plan Reference LP 4620 Derived From: VOL 9627 FOL 745 Depth Limitation: NIL</p>	<p style="text-align: center;">Notations</p> <p>ANY REFERENCE TO MAP IN THE TEXT MEANS THE DIAGRAM SHOWN ON THIS TITLE PLAN</p>							
<p style="text-align: center;">Description of Land / Easement Information</p>		<p>THIS PLAN HAS BEEN PREPARED FOR THE LAND REGISTRY, LAND VICTORIA, FOR TITLE DIAGRAM PURPOSES AS PART OF THE LAND TITLES AUTOMATION PROJECT</p> <p>COMPILED: 09/06/2000 VERIFIED: B.H.</p>						
<div style="border: 2px solid blue; padding: 10px; margin-bottom: 20px;"> <p style="text-align: center;">Cardinia</p> <p style="text-align: center;">ADVERTISED MATERIAL</p> <p style="text-align: center;">Planning Application: T210451 Date Prepared: 10 April 2026</p> <p style="font-size: small; text-align: center;">This copied document is made available for the purpose of the planning process as set out in the <i>Planning and Environment Act 1987</i>. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.</p> </div> 								
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th colspan="2" style="text-align: center;">TABLE OF PARCEL IDENTIFIERS</th> </tr> <tr> <td colspan="2" style="font-size: small;">WARNING: Where multiple parcels are referred to or shown on this Title Plan this does not imply separately disposable parcels under Section 8A of the Sale of Land Act 1962</td> </tr> <tr> <td colspan="2" style="font-size: small;">PARCEL 1 = LOT 28 ON LP 4620</td> </tr> </table>			TABLE OF PARCEL IDENTIFIERS		WARNING: Where multiple parcels are referred to or shown on this Title Plan this does not imply separately disposable parcels under Section 8A of the Sale of Land Act 1962		PARCEL 1 = LOT 28 ON LP 4620	
TABLE OF PARCEL IDENTIFIERS								
WARNING: Where multiple parcels are referred to or shown on this Title Plan this does not imply separately disposable parcels under Section 8A of the Sale of Land Act 1962								
PARCEL 1 = LOT 28 ON LP 4620								
LENGTHS ARE IN METRES	Metres = 0.3048 x Feet Metres = 0.201168 x Links	Sheet 1 of 1 sheets						



in conjunction with



Cardinia
ADVERTISED MATERIAL
 Planning Application: T210451
 Date Prepared: 10 April 2026

This copied document is made available for the purpose of the planning process as set out in the Planning and Environment Act 1967. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.

P.O. Box 1317, Healesville Vic 3777
 Mobile: 0438 731 214 or 0409027450
 Email: info@gondwanaplanning.com
 Web: <https://gondwanaenvironmentplanning.com.au>

PLANNING REPORT V. 2
 For
**USE & DEVELOPMENT FOR THE CONSTRUCTION OF
 DWELLING, OUTBUILDING, EARTHWORKS GREATER THAN
 1M & VEGETATION REMOVAL**
 At
61 LIVIO DRIVE, GEMBROOK



Copyright

© MAP Building Consultant Services & Gondwana Planning. Except as provided by the Copyright Act 1968, no part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means without the prior written permission of the publisher.

Disclaimer

This report may be of assistance to you and has been made with careful consideration and with the best information available to MAP at the time of writing. Before relying on information in this report, users should carefully evaluate the accuracy, completeness and relevance of the information provided for their purposes. MAP Building Consultant Services & Gondwana Planning does not accept responsibility for how you apply or rely on the information in this report.

This report is provided for the amended proposal for application no. T210451 and addresses the amendments to the location of the dwelling, effluent field, outbuilding, earthworks and tree/vegetation removal.

Cardinia

ADVERTISED MATERIAL

Planning Application: T210451

Page 2 of 7

This copied document is made available for the purpose of the planning process as set out in the Planning and Environment Act 1987. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.

The site is located within a Rural Conservation Zone (RCZ1) with an Environmental Significant Overlay (ESO1) and a Bushfire Management Overlay (BMO).



35.06 RURAL CONSERVATION ZONE

Purpose

- To implement the Municipal Planning Strategy and the Planning Policy Framework.
- To conserve the values specified in a schedule to this zone.
- To protect and enhance the natural environment and natural processes for their historic, archaeological and scientific interest, landscape, faunal habitat and cultural values.
- To protect and enhance natural resources and the biodiversity of the area.
- To encourage development and use of land which is consistent with sustainable land management and land capability practices, and which takes into account the conservation values and environmental sensitivity of the locality.
- To provide for agricultural use consistent with the conservation of environmental and landscape values of the area.
- To conserve and enhance the cultural significance and character of open rural and scenic non-urban landscapes

35.06-1 Table of uses

Section 2 - Permit required

Use

Dwelling (other than Bed and breakfast)

Condition

- Must be the only dwelling on the lot. This does not apply to the replacement of an existing dwelling if the existing dwelling is removed or altered (so it can no longer be used as a dwelling) within one month of the occupation of the replacement dwelling.
- Must meet the requirements of Clause 35.06-2.

35.06-2 Use of land for a dwelling

A lot used for a dwelling must meet the following requirements:

- Access to the dwelling must be provided via an all-weather road with dimensions adequate to accommodate emergency vehicles. ✓
 - The dwelling must be connected to reticulated sewerage if available. If reticulated sewerage is not available, all wastewater from the dwelling must be treated and retained within the lot in accordance with the requirements of the Environment Protection Regulations under the *Environment Protection Act 2017* for an on-site wastewater management system. ✓
 - The dwelling must be connected to a reticulated potable water supply or have an alternative potable water supply with adequate storage for domestic use as well as for firefighting purposes. ✓
- The dwelling must be connected to a reticulated electricity supply or have an alternative energy source. ✓
- These requirements also apply to a dependent person’s unit. N/A

35.06-5 Buildings and works

A permit is required to construct or carry out any of the following:

- A building or works associated with a use in Section 2 of Clause 35.06-1.

This does not apply to:

- An alteration or extension to an existing dwelling provided the floor area of the alteration or extension does not exceed the area specified in a schedule to this zone or, if no area is specified, 100 square metres. Any area specified must be more than 100 square metres. **N/A**
 - An out-building associated with an existing dwelling provided the floor area of the out-building does not exceed the area specified in a schedule to this zone or, if no area is specified, 100 square metres. Any area specified must be more than 100 square metres. **N/A**
 - An alteration or extension to an existing building used for agriculture provided the floor area of the alteration or extension does not exceed the area specified in a schedule to this zone or, if no area is specified, 100 square metres. Any area specified must be more than 100 square metres. The building must not be used to keep, board, breed or train animals. **N/A**
 - A rainwater tank. ✓
- Earthworks specified in a schedule to this zone, if on land specified in a schedule.
- A building which is within any of the following setbacks:
 - 100 metres from a Transport Zone 2 or land in a Public Acquisition Overlay if the Head, Transport for Victoria is the acquiring authority and the purpose of the acquisition is for a road. **N/A**
 - 40 metres from a Transport Zone 3 or land in a Public Acquisition Overlay for a road if the Head, Transport for Victoria is not the acquiring authority. **N/A**
 - 20 metres from any other road. ✓
 - 5 metres from any other boundary. ✓
 - 100 metres from a dwelling not in the same ownership.
 - 100 metres from a waterway, wetlands or designated flood plain. ✓
 - A building or works associated with accommodation located within 500 metres from the nearest title boundary of land on which a work authority has been applied for or granted under the *Mineral Resources (Sustainable Development) Act 1990*. **N/A**



The proposal is as stated for the construction of a dwelling, outbuilding and earthworks that exceed 1m in depth or fill and associated vegetation removal.

The proposed location of the dwelling is to be located towards the front of the site and be provided with an all-weather driveway (extension and upgrade to existing one) suitable for emergency vehicles, be connected to electricity, provided with water tanks for domestic and firefighting purposes and also be connected to a septic system approved by the EPA.

Earthworks are unavoidable on this site; however we have reduced these earthworks to a maximum cut of 1m and fill (outbuilding & dwelling) by locating the dwelling and outbuilding as shown on the plans provided herein.

The proposal is:

Setback greater than 20m from Livio Drive

Greater than 5m from a boundary

The outbuilding is setback approximately 80m from the closest neighbouring dwelling with the dwelling on the site itself setback approximately 105m

There are no watercourses within 100m of the proposed building or works

The proposal is consistent with the surrounding area as every site abutting and beyond has a dwelling as seen in the attached aerial.



Whilst the site itself is not usable for agricultural land nor has it the capacity to support any agricultural use due to the extensive vegetation, it is ideal for conservation insofar as living on the site will ensure that its ongoing upkeep and conservation values are managed for its natural environment and the protection and enhancement of the landscape character and biodiversity of the area as well as contributing to the maintenance of the site for a greater protection of life and property to the surrounding area. (Clause 13.02)



42.01 ENVIRONMENTAL SIGNIFICANCE OVERLAY

Purpose

- To implement the Municipal Planning Strategy and the Planning Policy Framework.
- To identify areas where the development of land may be affected by environmental constraints.
- To ensure that development is compatible with identified environmental values.

42.01-2 Permit requirement

A permit is required to:

- Construct a building or construct or carry out works. This does not apply if a schedule to this overlay specifically states that a permit is not required. ✓



- Remove, destroy or lop any vegetation, including dead vegetation. This does not apply:
 - If a schedule to this overlay specifically states that a permit is not required. ✓
 - If the table to Clause 42.01-3 specifically states that a permit is not required. ✓

SCHEDULE 1 TO CLAUSE 42.01 ENVIRONMENTAL SIGNIFICANCE OVERLAY

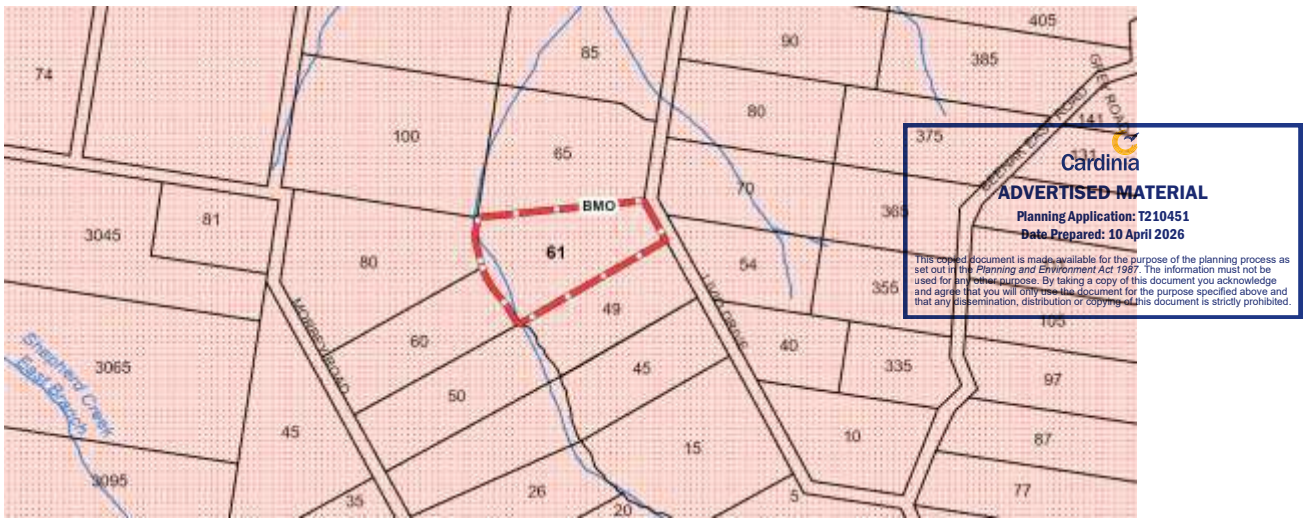
3.0 Permit requirement

A permit is not required to construct a building or construct or carry out works provided all of the following requirements are met:

- Building materials must be non-reflective or subdued colours which complement the environment to the satisfaction of the responsible authority. ✓
- The height of any dwelling must not exceed 7 metres above natural ground level and the height of all other buildings must not exceed 4 metres above natural ground level. **Refer below**
- The works must not involve the excavation of land exceeding 1 metre or filling of land exceeding 1 metre and any disturbed area must be stabilised by engineering works or revegetation to prevent erosion. **Refer below**
- The slope of the land on which the buildings or works are undertaken must not exceed 20%. ✓
The buildings and works must not result in the removal or destruction of native vegetation (including trees, shrubs, herbs, sedges and grasses) within an area of botanical or zoological significance as shown on the mapped information provided by the Department of Sustainability and Environment, with the exception of Sweet Pittosporum (*Pittosporum undulatum*). ✓
- If the building is an extension to an existing dwelling that is less than 50 percent of the floor area of the existing building. **N/A**
- If the building is an outbuilding ancillary to a dwelling, the gross floor area of all outbuildings on the land must not exceed 120 square metres. ✓
- If the building is in a Green Wedge or Rural Conservation Zone and is associated with the existing use of the land for the purposes of agriculture, the gross floor area of the building must not exceed 160 square metres. **N/A**

The requirements for a permit under this overlay are triggered as follows

- The buildings (dwelling & outbuilding) are to be constructed in non-reflective subdued colours.
- The maximum height of the dwelling will be 5.750m above NGL however the outbuilding has a maximum height of 5.669m including cut depth (height actual ridge of building 4.669m)
- The dwelling requires a maximum cut of 1m cut battered back with a fill of a maximum of 1m and the outbuilding requiring cut and fill of 1m. All cuts/fill are to be battered back of which will be stabilised by ground covers landscaped to CFA compliance.
- The gross floor area of the proposed outbuilding is to be 99 square metres.
- The removal of vegetation is required due to the placement of the dwelling and outbuilding together with the site being located within a BMO therefore compliance to this overlays is required due to the 5m canopy separation. The whole area of defendable space is considered lost and therefore proposed to be offset.



44.06 BUSHFIRE MANAGEMENT OVERLAY

44.06-2 Permit requirement

Buildings and works

A permit is required to construct a building or construct or carry out works associated with the following uses:

- Accommodation (including a Dependent person's unit) ✓

Whilst the dwelling triggers the requirement for a Planning Permit under this overlay the outbuilding being only 99sq.m. does not.

Further the CFA response we have amended the Defendable Space of 32m N,S & E -39m W around the dwelling to comply with the vegetation removal providing a 5m canopy separation between retained stand-alone trees and the management of understorey in this area.

Please refer to the amended BMS and BMP.

52.12 BUSHFIRE PROTECTION EXEMPTIONS

52.12-2 Exemption for vegetation removal along a fenceline

Any requirement of a planning permit, including any condition, which has the effect of prohibiting the removal, destruction or lopping of vegetation, or any requirement of this planning scheme to obtain a planning permit, or any provision of this planning scheme that prohibits the removal, destruction or lopping of vegetation or requires the removal, destruction or lopping of vegetation to be carried out in a particular manner, does not apply to the removal, destruction or lopping of any vegetation along a boundary fence between properties in different ownership if all of the following requirements are met:

- The fence must be located in an area that is designated as a bushfire prone area under the *Building Act 1993*. ✓
- The fence must have been constructed before 10 September 2009. ✓

The clearing alongside both sides of the fence when combined must not exceed 4 metres in width, except where land has already been cleared 4 metres or more along one side of the fence, then up to 1 metre can be cleared along the other side of the fence. ✓

Whilst a claim could be made to remove several trees along the south and front boundary, only one tree (Tree 4A) along the front boundary has been marked as to be removed under this exemption due to this tree having to be removed for canopy separation. A exemption setback width of 2m has been deducted from the loss area within the NVR report.

52.17 NATIVE VEGETATION

Purpose

To ensure that there is no net loss to biodiversity as a result of the removal, destruction or lopping of native vegetation. This is achieved by applying the following three step approach in accordance with the *Guidelines for the removal, destruction or lopping of native vegetation* (Department of Environment, Land, Water and Planning, 2017) (the Guidelines):

1. Avoid the removal, destruction or lopping of native vegetation. Refer below
2. Minimise impacts from the removal, destruction or lopping of native vegetation that cannot be avoided. ✓
3. Provide an offset to compensate for the biodiversity impact if a permit is granted to remove, destroy or lop native vegetation. ✓

To manage the removal, destruction or lopping of native vegetation to minimise land and water degradation. ✓

As you are aware the original application assessed 173 trees which involved a considerable amount of native vegetation being removed (140 trees), since the defendable space area was much larger, however since we have relocated the proposed dwelling, effluent field and outbuilding on site to a far better location which also reduced the defendable space area to 32m S, E & N and 39m W around the dwelling, this has reduced the amount of native vegetation removal from 140 trees now down to 41 trees (including 5 LOT'S & 2 VLOT's), as stated in the Arborist Report, December 2025.

"This original configuration saw the loss of 140 trees (including 17 LOT/VLOTs), this was then reduced to the previous configuration removing 113 of a total of 173 trees (inc. 6 L.O.T.'s & 1 V.L.O.T), whilst this version sees the removal of only 41 trees out of 173 trees total (inc. 7 LOTs & 2 VLOTs)"

As the CFA have consented in principle to accept the proposed Defendable space parameters, with all retained trees meeting the vegetation management requirements for canopy separation.

Therefore, we consider that these measures adopted in the relocation of the dwelling, effluent field & outbuilding have shown a significant reduction of native vegetation impacts through avoiding and minimising by reducing the defendable space also.

It is proposed that first party offsets at the rear of the site will partially make up a percentage of the total offsets calculated. The deficit once first party offsets have been explored and secured will then need to be achieved with a third-party OTC vegetation credit sourced to satisfy the remainder once the planning process has progressed.

Please refer to attached NVR & Biodiversity Assessment Report.

All trees assessed within the Arborist report also qualified as Canopy trees under the new Clause 52.37.



Bushfire Management Statement

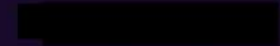
Construction of a Dwelling in a Bushfire Management Overlay Version 10 – 14/12/2025



61 Livio Road, Gembrook

PREPARED FOR:	
Client name	
Contact	

Prepared By:



Dip. Natural Resource Management
 B. App Sci – Environmental Management
 Grad Dip Education
 Grad Dip Bushfire Protection

0409027450

firefrontconsultancies@gmail.com

BPAD Registration

BPAD29087





ADVERTISED MATERIAL

Planning Application: T210451

Date Prepared: 10 April 2026

This copied document is made available for the purpose of the planning process as set out in the *Planning and Environment Act 1987*. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.

REV	DATE	DETAILS
A	22/12/2021	55m defendable space to west, change house design to meet concerns of CFA regarding Bushfire safety. Move house closer to access.
B	11/03/2022	Update BMP with DS conditions and trees to be excluded from canopy separation
C	12/03/2022	Update BMP
D	1/07/2022	Update new dwelling location and add trees for canopy exclusion
E	14/10/2022	Update dwelling location to enable minimum 32m defendable space
F	10/07/2023	Update as per CFA RFI 6/03/2023
G	22/07/2023	Update for new effluent zone
H	7/11/2024	Remove outer defendable space and increase construction standard
I	13/12/2025	Relocate Bushfire Bunker, amend site plan and change to simpler/ smaller dwelling design

TABLE OF CONTENTS

1	Introduction	3
1.1	Project Description.....	4
1.2	Relevant Objectives.....	5
2	Bushfire Hazard Site Assessment	6
2.1	The Site.....	6
2.2	SITE ASSESSMENT.....	7
3	Bushfire Hazard Landscape Assessment	8
3.1	Broader Landscape.....	8
3.1.1	Bushfire History of the Area.....	10
3.2	Landscape Type.....	13
4	Bushfire Management Statement	14
4.1	All other Developments – Bushfire Protection Objective.....	14
5	Summary	18
6	References	18
	Attachment 1 – Site Plan	19
	Attachment 2 – Site Photos	21
	Attachment 3 – Bushfire Management Plan	22
	Attachment 4 - Vegetation modifications and management required for defensible space	23



ADVERTISED MATERIAL
 Planning Application: T210451
 Date Prepared: 10 April 2026

This copied document is made available for the purpose of the planning process as set out in the Planning and Environment Act 1967. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.

Disclaimer

At the time of writing, the information in this report was provided with the latest information available to Fire Front Consultancies. Use of this report is at the responsibility of the applicant. Fire Front Consultancies does not guarantee that it is without flaw or omission of any kind and therefore disclaim all ability for any error, loss or other consequence that may arise from you relying on any information in this report.

Specifications outlined in this document do not guarantee survival of the building/s or the occupants. The client is advised to develop and rehearse a bushfire survival plan. A template for a Bushfire Survival Plan is available through the CFA website at www.cfa.vic.gov.au.

This report is subject to the approval of the local council and may be referred to the CFA for comment.

Conditions of Use

No part of this report is to be used or reproduced for any purpose without the prior written consent of Fire Front Consultancies. The copyright and intellectual property rights of Fire Front Consultancies extends to the information, data, ideas, calculations and conclusions within this report and must not be used without written consent from Fire Front Consultancies.

1 Introduction

This Bushfire Management Statement has been prepared to respond to the requirements of Clause 44.06 Bushfire Management Overlay, and associated Clause 53.02 Bushfire Protection: Planning Requirements. The statement contains three components:

- **A Bushfire Hazard Site Assessment** provides factual information on the bushfire hazard within 150m of the development, provides the defendable space and building construction requirements of Clause 53.02 and is informed by the site assessment methodology contained in Australian Standard AS3959.
- **A Bushfire Hazard and Landscape Assessment (not required for dwellings in existing settlements)** provides information on the bushfire hazard more than 150m away from the development and factual information on the bushfire hazard. It also provides information on key features of the general locality that are relevant to better understanding the protection provided by the location and contextual information on the site.
- **A Bushfire Management Statement** shows how proposal has responded to the bushfire hazard site assessment and bushfire hazard landscape, documents how approved measures in Clause 53.02 have been applied, justifies any alternative measures, responds to the relevant decision guidelines and demonstrates to council that a permit should be granted.

1.1 Project Description

The proposal is for the construction of a dwelling at Lot 1 Livio Road, Gembrook. The site has been assessed and the BMO requirements addressed in this report. The property is in a Rural Conservation Zone and a pathway 2 report has been prepared that includes a bushfire hazard site assessment, a bushfire hazard landscape assessment and a bushfire management statement. The site was inspected on 12th July, 2021.

Version 6: Dwelling has been relocated to ensure that there is a minimum of 32m of defendable space additional defendable space of 25m or to the property boundary whichever is the lesser is proposed with the exception of the canopy separation to reduce the impact on established trees.

Version 7: Update BMP and BMS to CFA FRI requests 6/03/2023.

Version 9: After onsite consultation with DECCA and Council and conversations with FRV and CFA, it is proposed to remove the outer additional defendable space and increase the construction standard from BAL 29- BAL40. This reduced the need for additional vegetation removal and increases the construction standard. Defendable space proposed is still Column C to Table 2 (BAL 29) but increases construction standard to help mitigate the landscape risk. A certified Private Bushfire Bunker has also been added to the proposal.

Version 10: After further discussion with FRV and CFA a simpler dwelling design has been adopted. This enabled the same defendable space distances to be maintained, but as the dwelling is smaller some additional trees were able to be retained on the site. This kept removal of vegetation for the defendable space to an intermediate pathway meeting the DEECA concerns. The slope to the west was changed to >5-10 degrees in accordance with advice from CFA and FRV. This extended the defendable space to 39m to the west. The Bushfire Bunker was sited in a more appropriate position and the shed has been separated from the dwelling. Previous versions saw the removal of grouped trees, a smaller shed, more direct access and better siting to minimize the impact on the vegetation to the rear of the site, improve the design of the dwelling, increase BAL construction to BAL 40 and increase safety measures.



1.2 Relevant Objectives

The checklist below identifies those objectives that are applicable to this bushfire management statement.



Objectives and Approved/Alternative Measures	Applicable	Provide justification for any objectives which are considered not applicable.
53.02- 3 Dwellings in Existing Settlements	No	Proposal is for a Dwelling in a Rural Conservation Zone
AM 1.1 Siting	No	
AM 1.2 Defendable Space and Construction	No	
AM 1.3 - Water Supply and Access	No	
53.02- 4 All Other Development	Yes	Proposal is for a Dwelling in a Rural Conservation Zone
53.02 – 4.1 Landscape, Siting and Design	Yes	
AM2.1 Broader Landscape	Yes	
AM2.2 Siting	Yes	
AM2.3 Building Design	Yes	
53.02- 4.2 Defendable Space and Construction	Yes	
AM3.1 Defendable space for a Dwelling a Dependent Persons unit, Industry office or retail premises	Yes	Proposal is for a Dwelling in a Rural Conservation Zone
AM3.2 - Defendable space for other buildings and works	No	Proposal is for a Dwelling in a Rural Conservation Zone
AltM3.3 - Defendable Space on Adjoining Land	No	
AltM3.4 - Defendable Space Calculation using Method 2 of AS3959	No	
AltM3.5 –Dwellings Subject to Direct Flame Contact	No	
AltM3.6 – Integrated decision making for development occupied by more vulnerable development	No	Proposal is for a Dwelling in a Rural Conservation Zone
53.02 – 4.3 Water and Access Objective	Yes	
AM4.1 - A building used for a Dwelling a Dependent Persons unit, Industry office or retail premises	Yes	
AM4.2 - A building used for accommodation (other than a dwelling or dependent persons unit), childcare center, education center, hospital, leisure and recreation or place of assembly.	No	Proposal is for a Dwelling in a Rural Conservation Zone

2 Bushfire Hazard Site Assessment

Cardinia

ADVERTISED MATERIAL

Planning Application: T210451

Sections 2.2.3 to 2.2.5 of AS3959:2009 Construction of Buildings in Bushfire Prone Areas (Standards Australia) excluding paragraph (a) of Section 2.2.3.2

This document is provided as a service to the public under the Freedom of Information Act 1997. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.

Description of the bushfire hazard within 150m of the proposed development prepared in accordance with sections 2.2.3 to 2.2.5 of AS3959:2009 Construction of Buildings in Bushfire Prone Areas (Standards Australia) excluding paragraph (a) of Section 2.2.3.2

2.1 The Site

2.1.1	Site shape, dimensions, size and planning controls
The shape of the site is:	Irregular (see Attachment 1)
The dimensions of the site are:	See Attachment 1
The site has a total area of:	3.4ha
The zoning of the site is:	Rural Conservation Zone (RCZ)
The overlays that apply to the site are:	Bushfire Management Overlay (BMO) Environmental Conservation Zone – Schedule 1 (ESO1)

2.1.2	Existing use and development on the site
The current use of the site is:	NIL
The buildings or works located on the site are:	Boundary fencing.

2.1.4	Existing vegetation
The property has scattered native trees and shrubs towards the road and forest to the rear of the property.	

2.1.3	Existing access arrangements
The site is accessed via the existing access off Livio Drive.	

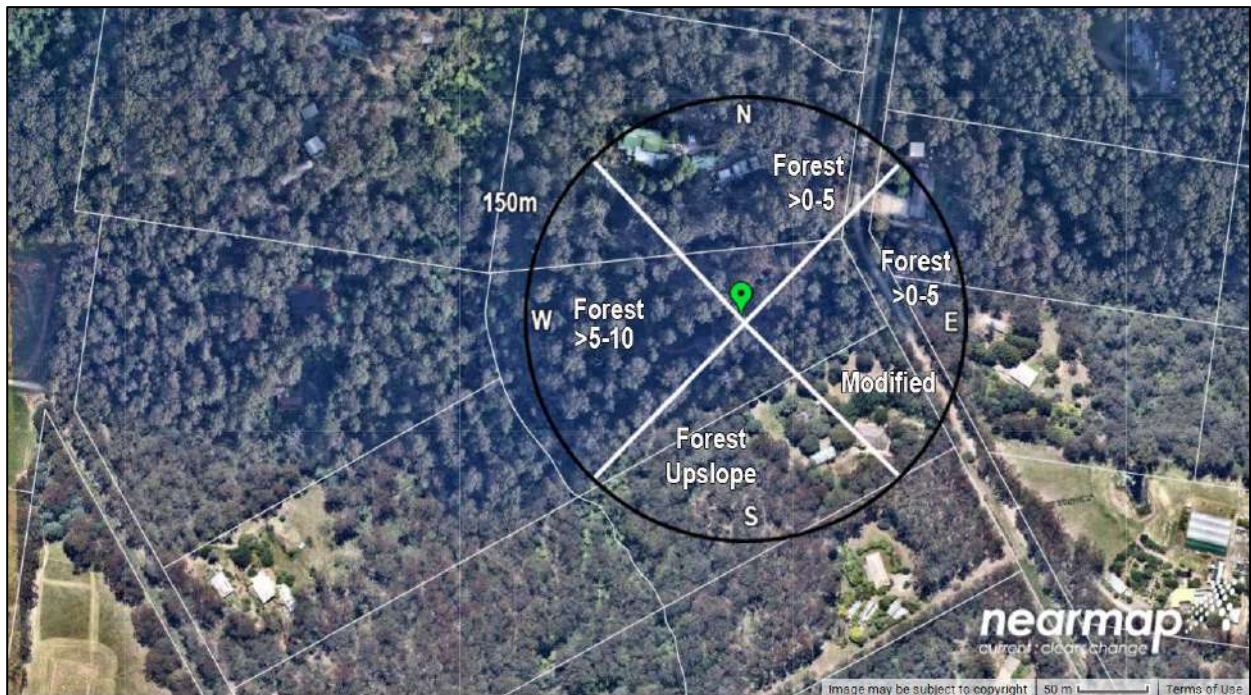


Figure 1. 150m Bushfire Site Assessment.

2.2 SITE ASSESSMENT

	North	South	East	West
Vegetation Type	Forest	Forest	Forest	Forest
	Woodland	Woodland	Woodland	Woodland
	Shrubland	Shrubland	Shrubland	Shrubland
	Scrub	Scrub	Scrub	Scrub
	Mallee/Mulga	Mallee/Mulga	Mallee/Mulga	Mallee/Mulga
	Rainforest	Rainforest	Rainforest	Rainforest
	Grassland	Grassland	Grassland	Grassland
	Low Threat	Low Threat	Low Threat	Low Threat
	Modified	Modified	Modified	Modified
	Excludable	Excludable	Excludable	Excludable

Slope Under Vegetation	North	South	East	West
Flat/Upslope	Yes	Yes	Yes	Yes
Downslope	>0-5°	>0-5°	>0-5°	>0-5°
	>5-10°	>5-10°	>5-10°	>5-10°
	>10-15°	>10-15°	>10-15°	>10-15°
	>15-20°	>15-20°	>15-20°	>15-20°
	N/A	N/A	N/A	N/A

	North	South	East	West
Distance to Vegetation	32m	32m	32m	39m

	North	South	East	West
Corresponding BAL	29	29	29	29

BAL for Site : BAL 29

	North	South	East	West
Tabled Defendable Space BAL 29	32m	32m	32m	39m

The increase in construction standard to BAL 40 helps to mitigate the broader landscape risk. Defendable space has been applied uniformly as per DECCA guidelines.

CONSTRUCTION STANDARD PROPOSED FOR SITE: BAL 40

3 Bushfire Hazard Landscape Assessment

3.1 Broader Landscape

3.1.1 Vegetation in the Broader Locality

The site has a band of Lowland Forest along the western boundary which rises up from a water course that runs through the rear of property. There is narrow corridor of vegetation along the eastern property boundary which is approximately 3m wide. The eastern part of the lot is somewhat managed and is clear of understory.

The property is surrounded by forested areas with the Bunyip State Park to the southeast and Kurth Kiln to the northeast. The township and surrounding agricultural areas of Gembrook are west of the site. The landscape is moderately undulating and there are a number of water courses throughout the region.



Figure 2. Broader Landscape



ADVERTISED MATERIAL

Planning Application: T210451
Date Prepared: 10 April 2026

This copied document is made available for the purpose of the planning process as set out in the *Planning and Environment Act 1987*. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.

3.1.2 Existing Road Networks

The property is on Livio Drive which is a gravel road in good trafficable condition. Livio Drive joins Beenak East Road which runs into the township of Gembrook southwest of the site.

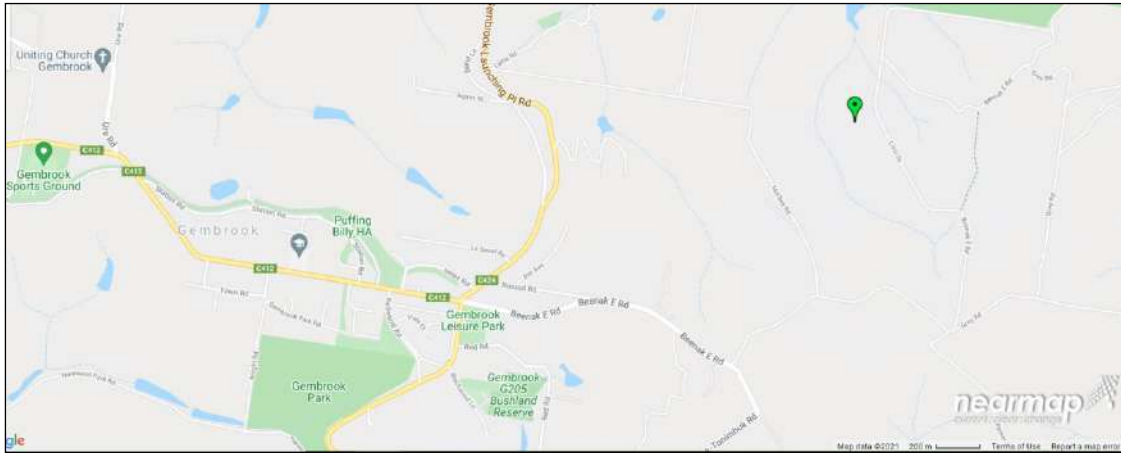


Figure 3. Road Network.



ADVERTISED MATERIAL

Planning Application: T210451
Date Prepared: 10 April 2026

This copied document is made available for the purpose of the planning process as set out in the *Planning and Environment Act 1967*. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.

3.1.1 Bushfire History of the Area

The most recent fires were The Bunyip fires in March 2019 which were approximately 2.4kms east of the site in the Bunyip State Forest. This fire was 10,793ha in size. The other fire recorded in close proximity was northwest of the site in 1983. The property itself was not burnt during either of these fires and has not been burnt within the past 50 years. Fires can be seen shaded in pink below.

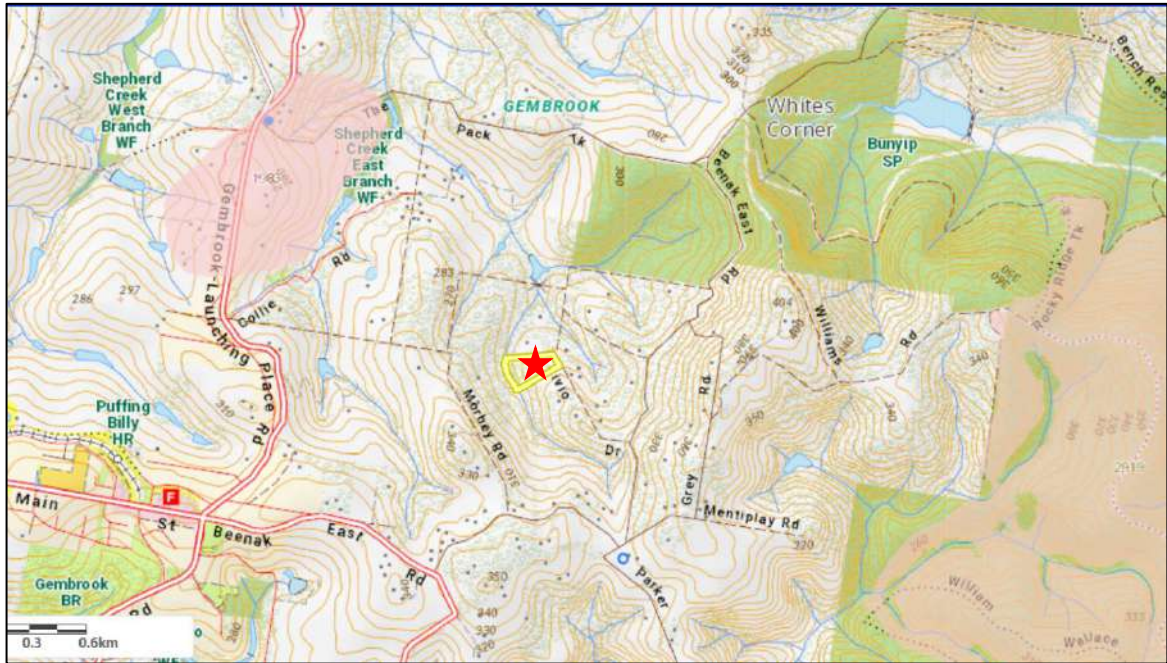


Figure 4. Wildfire History



ADVERTISED MATERIAL

Planning Application: T210451

Date Prepared: 10 April 2026

This copied document is made available for the purpose of the planning process as set out in the *Planning and Environment Act 1987*. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.

3.1.3 Relevant Regional Bushfire Planning Assessment



ADVERTISED MATERIAL

Planning Application: T210451

Date Prepared: 10 April 2026

This copied document is made available for the purpose of the planning process as set out in the Planning and Environment Act 1987. The information must not be used for any other purpose. You acknowledge and warrant that you acknowledge and warrant that any dissemination, distribution or copying of this document is strictly prohibited.

There have been a number of fuel reduction burns in the forested areas within the surrounding area. The Bunyip State Forest was also extensively burnt during the 2019 fires. This can be seen in Figure 5 below. There are several large fuel reduction burns proposed in the current Joint Fuel Management Plan (JFMP). The closest area proposed to be burnt in the current JFMP can be seen in Figure 6 below.



Figure 5. Fuel Reduction Burn History from the past 5 years

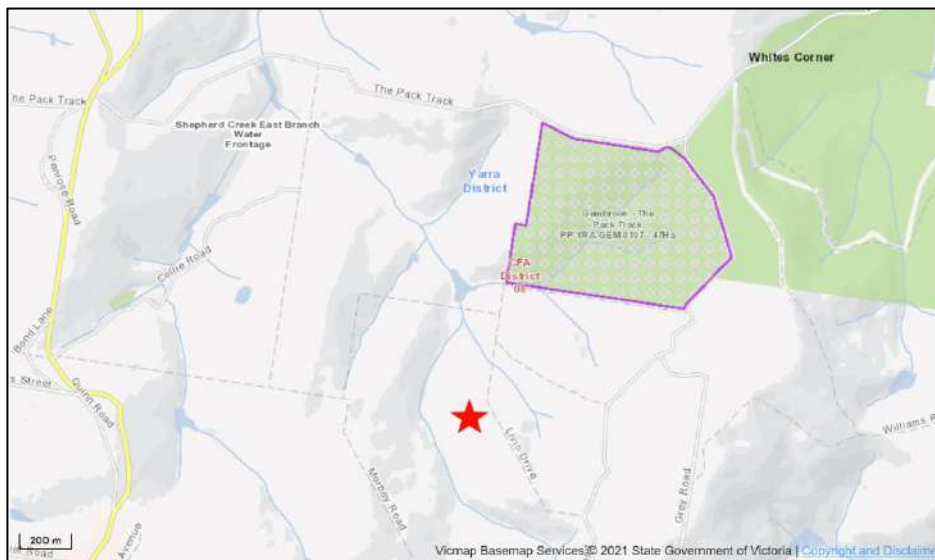


Figure 6. Planned Fuel Reduction Burns

Joint Fuel Management Program		Fire Management Zones	
Burn Year	Mechanical Works	1 - Asset Protection	
2020 / 2021	Fire History - Last 5 Years	2 - Bushfire Moderation	
2021 / 2022	DELWP District Boundaries	3 - Landscape Management	
2022 / 2023	CFA District Boundaries	4 - Planned Burn Exclusion	

3.1.4 Proximity of site to Areas of managed fuel

There are large cleared areas west and northwest of the site in and around the township of Gembrook and extending west towards Cockatoo.

Cardinia
ADVERTISED MATERIAL
Planning Application: T210451
Date Prepared: 10 April 2026
This document is prepared for the purposes of the planning process as set out in the Planning and Environment Act 1987. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.

3.1.5 Proximity to Declared shelter options

The closest declared Neighbourhood Safer Place (NSP) is 3.8kms from the site in Gembrook at the Community Centre, on the corner Beenak East Road and Gembrook Road (entry off Gembrook Road) Gembrook.

3.1.6 Likely Bushfire Scenarios

There are long continuous runs through high risk and modified vegetation from the northeast and east. Vegetation along roadsides and in private properties could also carry a fire. The topography is undulating and there a steep slopes throughout the region. Occupants should be prepared for an intense fire approaching from the northeast or east and that a fire may also approach from the west. The site could experience, extreme ember attack and thick smoke before, during and after a fire front. Occupants should be constantly monitoring any fire in the area as fire may approach from any direction.



Figure 7. Possible Fire Runs

3.2 Landscape Type

The landscape would be best described as a Type 3/4 Landscape:

- The type and extent of the vegetation located more than 150m from the site may result in neighbourhood-scale destruction as it interacts with the bushfire hazard on and close to the site.
- Bushfire can approach from more than one aspect.
- The site is located in an area that is not managed in a minimum fuel condition
- Access to an appropriate place that provides shelter from bushfire is not certain.



Figure 8. Landscape Type.

The area has features of both types 3 and 4 landscapes. Residents in this area should have a bushfire safety plan and should be prepared for thick smoke and heavy ember attack. Leaving early before fire threatens is the only safe option. Travelling during a fire event is not an option as roads are likely to be untrafficable. Occupants should have a plan to enable them to shelter in place should they be caught out. There is a declared neighbourhood safer place in Gembrook at the Community Centre 3.8kms from the site along Beenak East Road.


Cardinia
ADVERTISED MATERIAL
Planning Application: T210451
Date Prepared: 10 April 2026

This copied document is made available for the purpose of the planning process as set out in the *Planning and Environment Act 1967*. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.

4 Bushfire Management Statement



ADVERTISED MATERIAL
 Planning Application: T210451
 Date Prepared: 10 April 2026

This copied document is made available for the purpose of the planning process as set out in the Planning and Environment Act 1987. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.

4.1 All other Developments – Bushfire Protection Objective

Landscape Siting and Design Objectives 53.02- 4.1	
	RESPONSE / COMMENTS
<p>Approved Measure 2.1 – Broader Landscape The bushfire risk to the development from the landscape beyond the site can be mitigated to an acceptable level.</p> <p>Approved Measure 2.2 – Siting A building is sited to ensure the site best achieves the following: The maximum separation distance between the building and the bushfire hazard. The building is in close proximity to a public road. Access can be provided to the building for emergency service vehicles.</p> <p>Approved Measure 2.3 – Building Design A building is designed to reduce the accumulation of debris and entry of embers.</p>	<p>The surrounding landscape presents a very high to extreme risk to any development in the area. Regular fuel reduction works to reduce the risk to residents are conducted within the public land in the forests.</p> <p>Column C (Table 2) defendable space has been proposed with BAL 40 Construction standard to help mitigate the landscape risk. A minimum of 32m or to the property boundary, whichever is the lesser is proposed around the dwelling to the north, east and south and 39m to the west</p> <p>The proposed dwelling has been sited centrally on the front section of the lot to enable maximum defendable space to the north and south.</p> <p>A certified private Bushfire Bunker has also been included in the proposal and will meet PBS manufacturers specifications.</p> <p>Access to the site is off Livio Drive. The access to the proposed dwelling is 32m from the road enabling close access.</p> <p>The roof is a simple single ridge design with a 30 degree pitch, constructed from colorbond. The dwelling sits on a slab and the cladding is also colorbond. Windows are aluminum and sit more than 900mm off ground level. The house design has been modified after discussion with CFA.</p>

Defendable Space and Construction Objective 53.02- 4.2

	RESPONSE / COMMENTS										
<p>Approved Measure 3.1 - Defendable Space for a dwelling, a dependent persons unit, industry, office or retail premises.</p> <p>A building used for a dwelling (including an extension or alteration to a dwelling), a dependent person’s unit, industry, office or retail premises is provided with defendable space in accordance with:</p> <ul style="list-style-type: none"> • Column A, B or C of Table 2 to Clause 53.02-5 wholly within the title boundaries of the land; or • If there are significant siting constraints, Column D of Table 2 to Clause 53.02-5. <p>The building is constructed to the bushfire attack level that corresponds to the defendable space provided in accordance with Table 2 to Clause 53.02-5</p>	<p>The Dwelling requires defendable space to be managed to the distances set out in the table below. Defendable Space can also be seen in Attachment 4.</p> <table border="1"> <thead> <tr> <th colspan="2">Defendable Space</th> </tr> </thead> <tbody> <tr> <td>North</td> <td>32m or To the Property Boundary whichever is the lesser</td> </tr> <tr> <td>South</td> <td>32m or To the Property Boundary whichever is the lesser</td> </tr> <tr> <td>East</td> <td>32m or To the Property Boundary whichever is the lesser</td> </tr> <tr> <td>West</td> <td>39m or To the Property Boundary whichever is the lesser</td> </tr> </tbody> </table> <p>The dwelling must be constructed to meet or exceed BAL 40 standards. Defendable space can be contained within the property boundary.</p> <div style="border: 1px solid black; padding: 5px; text-align: center;">  <p>Cardinia ADVERTISED MATERIAL Planning Application: T210451 Date Prepared: 10 April 2026</p> <p><small>This copied document is made available for the purpose of the planning process as set out in the Planning and Environment Act 1967. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.</small></p> </div>	Defendable Space		North	32m or To the Property Boundary whichever is the lesser	South	32m or To the Property Boundary whichever is the lesser	East	32m or To the Property Boundary whichever is the lesser	West	39m or To the Property Boundary whichever is the lesser
Defendable Space											
North	32m or To the Property Boundary whichever is the lesser										
South	32m or To the Property Boundary whichever is the lesser										
East	32m or To the Property Boundary whichever is the lesser										
West	39m or To the Property Boundary whichever is the lesser										

This copied document is made available for the purposes of the planning process as advised in the notice of advertising. It is not to be used for any other purpose. The user agrees that they will only use the document for the purpose specified above and that the use of the document is strictly prohibited.

Approved Measure 4.1 -A building used for a dwelling (including an extension or alteration to a dwelling), a dependent person’s unit, industry, office or retail premises is provided with:

A static water supply for firefighting and property protection purposes specified in Table 4 to Clause 53.02-5.

The water supply may be in the same tank as other water supplies provided that a separate outlet is reserved for firefighting water supplies (See Figure 9).

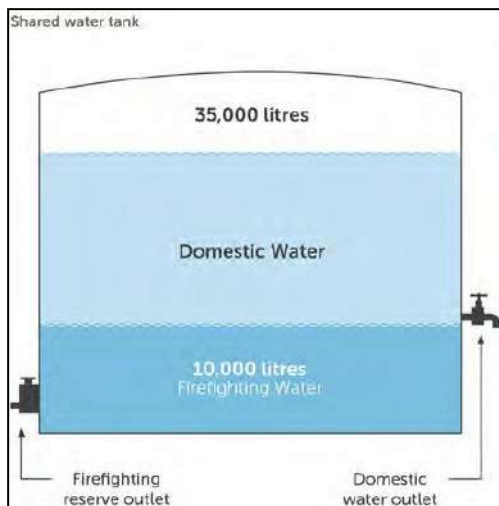


Figure 9. Water supply outlet example

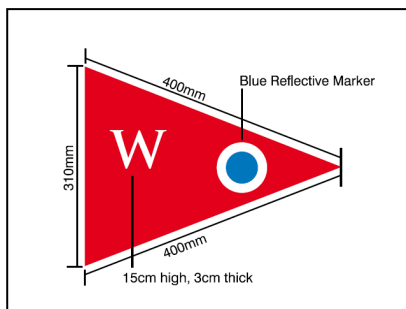


Figure 11. Signage

A dedicated static water supply for the dwelling will need to be provided and meet the following requirements:

- A minimum of 10,000 litres of on-site static storage must be provided on the lot and be maintained solely for firefighting.
- CFA access and couplings (Figure 10) are mandatory as the lot is greater than 1000m²

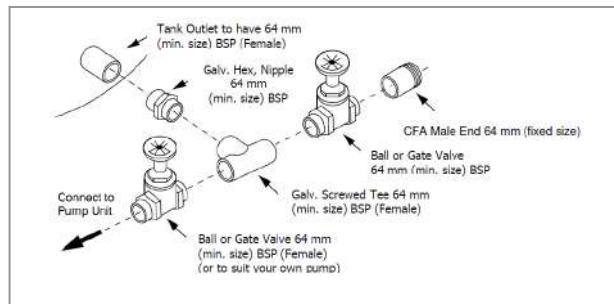


Figure 10 . CFA Compliant Fittings

The water supply must:

- Be stored in an above ground water tank constructed of concrete or metal.
- Have all fixed above ground water pipes and fittings required for firefighting purposes made of corrosive resistant metal.
- Include a separate outlet for occupant use.

Fire authority fittings and access must be provided as follows:

- Be readily identifiable from the building or appropriate identification signage to the satisfaction of the relevant fire authority (Figure 11).
- Be located within 60 metres of the outer edge of the approved building.
- The outlet/s of the water tank must be within 4 metres of the accessway and unobstructed.
- Incorporate a separate ball or gate valve (British Standard Pipe (BSP 65 millimetre) and coupling (64 millimetre CFA 3 thread per inch male fitting).
- Any pipework and fittings must be a minimum of 65 millimetres (excluding the CFA coupling).

Vehicle access that is designed and constructed as specified in Table 5 to Clause 53.02

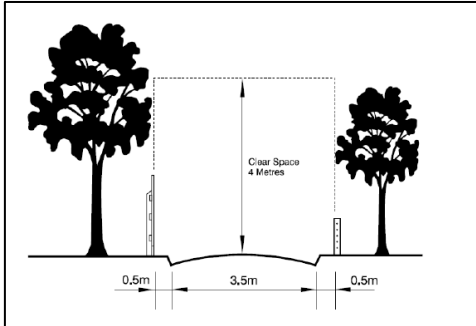


Figure 12: Overhead clearance and widths on road access

Access to site

The following design and construction requirements will apply from the road to the dwelling and to within 4m of the water supply outlet to allow Emergency Vehicle access.

The minimum design requirements are as follows:

- All Weather construction
- A load limit of at least 15 tonnes
- Provide a minimum trafficable width of 3.5m
- Be clear of encroachments for at least 0.5m on either side and at least 4m vertically.
- Curves in driveway must have a minimum inner radius of 10 metres.
- The average grade must be no more than 1 in 7 (14.4%) (8.1°) with a maximum of no more than 1 in 5 (20%) (11.3°) for no more than 50 metres.
- Dips must have no more than a 1 in 8 (12.5%) (7.1°) entry and exit angle (see Figure 12).



ADVERTISED MATERIAL

Planning Application: T210451

Date Prepared: 10 April 2026

This copied document is made available for the purpose of the planning process as set out in the Planning and Environment Act 1987. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.

5 Summary

- The dwelling must meet or exceed BAL 40 construction standards.
- A 10,000lt non-combustible static water supply is required with access for emergency services to within 4m of the water supply outlet.
- Access for emergency vehicles to the dwelling and to within 4m of the water supply outlet is required to meet the specifications on page 17.
- Defendable Space must be maintained in accordance with the defendable space requirements.



6 References

CFA (2021). Land Use Planning FSG LUP 0002. Country Fire Authority.
www.cfa.vic.gov.au [Accessed:21/07/2021]

CFA (2021) Community Safety Guidelines. Country Fire Authority. www.cfa.vic.gov.au [Accessed: 21/07/2021]

Department of Environment, Land, Water and Planning (2021) Fire Operations Plans. www.delwp.vic.gov.au [Accessed: 21/07/2021]

VIC Plan (2021). VIC Plan Website. State Government of Victoria.
<http://mapshare.maps.vic.gov.au/vicplan/> [Accessed: 21/07/2021].

Standards Australia (2018) AS3959 Construction of buildings in bushfire prone areas. SAI Global Limited.

Attachment 1 – Site Plan


ADVERTISED MATERIAL
 Planning Application: 1210451
 Date Prepared: 10 April 2026

This copied document is made available for the purpose of the planning process as set out in the *Planning and Environment Act 1987*. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.

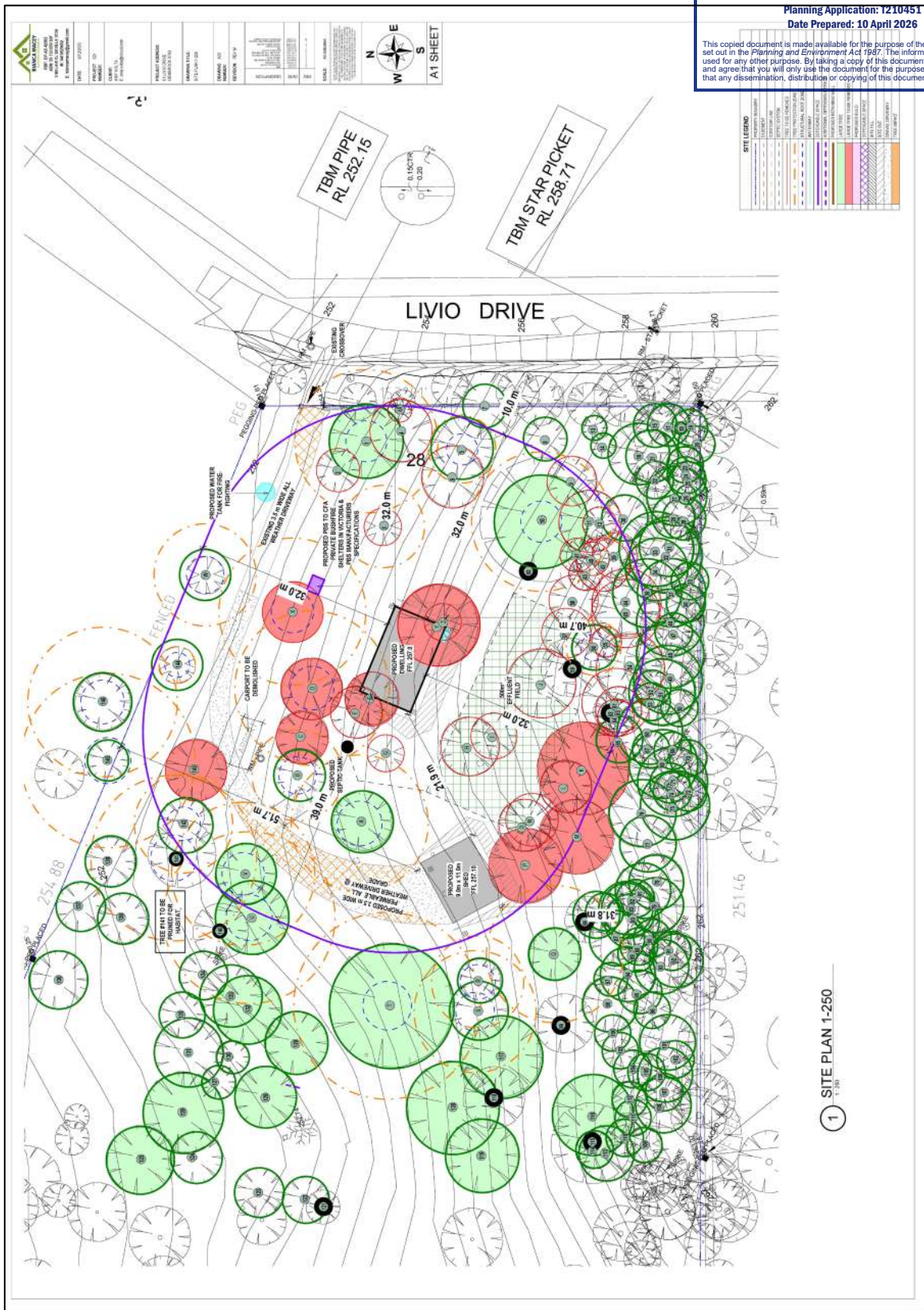


Figure 1. Proposed Dwelling

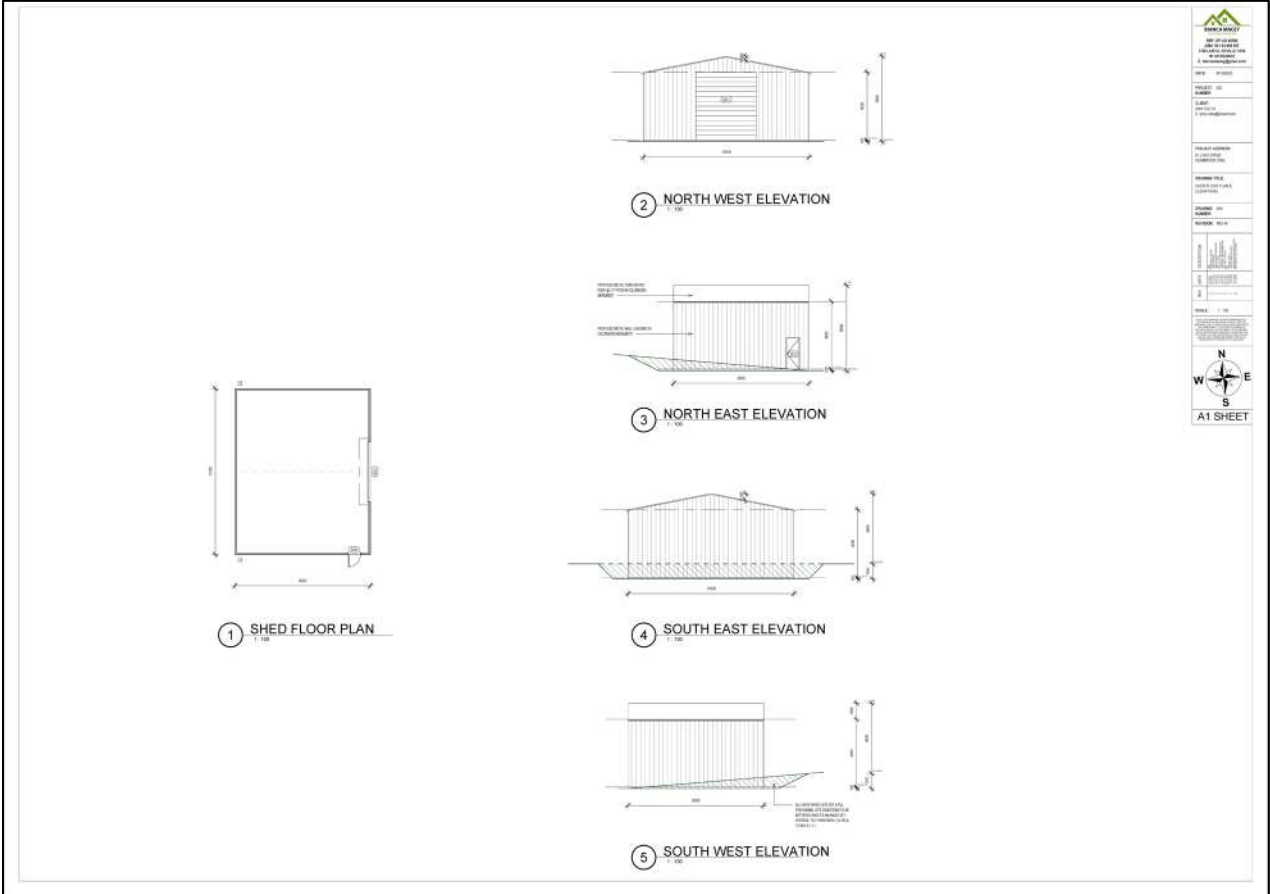
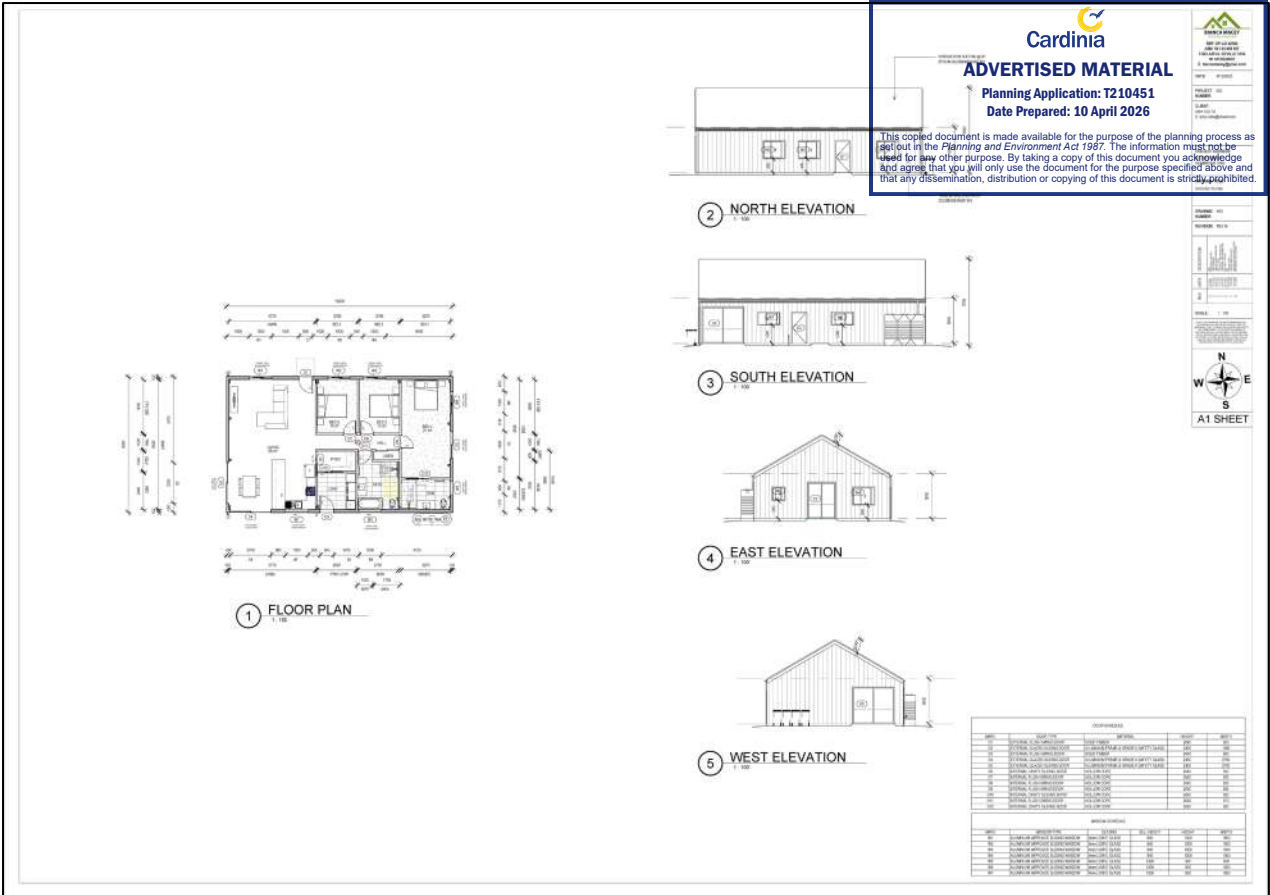


Figure 2. Elevations

Attachment 2 – Site Photos



Figure 1. Looking North



Figure 2. Looking East



Figure 3. Looking South



Figure 4. Looking West


ADVERTISED MATERIAL
Planning Application: T210451
Date Prepared: 10 April 2026

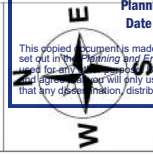
This copied document is made available for the purpose of the planning process as set out in the *Planning and Environment Act 1987*. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.

Attachment 3 – Bushfire Management Plan



ADVERTISED MATERIAL

Planning Application: T210451
Date Prepared: 10 April 2026



This copied document is made available for the purpose of the planning process as set out in the Planning and Environment Act 1987. The information must not be used for any other purpose. If you are taking a copy of this document you acknowledge that you will only use the document for the purpose specified above and that any dissemination/distribution or copying of this document is strictly prohibited.

<p>BIANCA MACKEY BRP: DP-AD-0382 ABN: 95 133 699 607 3 BELAIR CL, BEVILLE 3139 M: 0419520662 E: bianca@mackeyfire.com</p>		
DATE:	8/12/2025	
PROJECT NUMBER:	021	
CLIENT:		
PROJECT ADDRESS:	61 LIVIO DRIVE GEMBROOK 3783	
DRAWING TITLE:	BUSHFIRE MANAGEMENT PLAN	
DRAWING NUMBER:	A05	
REVISION:	REV A	
DESCRIPTION:	<p>1. ALL DIMENSIONS ARE TO FACE UNLESS SPECIFIED OTHERWISE.</p> <p>2. ALL DIMENSIONS ARE TO BE MAINTAINED AT ALL TIMES.</p> <p>3. ALL DIMENSIONS ARE TO BE MAINTAINED AT ALL TIMES.</p> <p>4. ALL DIMENSIONS ARE TO BE MAINTAINED AT ALL TIMES.</p> <p>5. ALL DIMENSIONS ARE TO BE MAINTAINED AT ALL TIMES.</p> <p>6. ALL DIMENSIONS ARE TO BE MAINTAINED AT ALL TIMES.</p> <p>7. ALL DIMENSIONS ARE TO BE MAINTAINED AT ALL TIMES.</p> <p>8. ALL DIMENSIONS ARE TO BE MAINTAINED AT ALL TIMES.</p> <p>9. ALL DIMENSIONS ARE TO BE MAINTAINED AT ALL TIMES.</p> <p>10. ALL DIMENSIONS ARE TO BE MAINTAINED AT ALL TIMES.</p>	
REV	DATE	DESCRIPTION
SCALE:	As indicated	

Bushfire Management Plan - 61 Livio Drive, Gembrook

Version 10: 14/12/2025

Vegetation Management for Defendable Space

Defendable space for a distance of 32 metres around the proposed building (or to the property boundary, whichever is the lesser distance) to the north, east and south and 39m to the west must be provided where vegetation (and other flammable materials) will be modified and managed in accordance with the following requirements:

- Grass must be short cropped and maintained during the declared fire danger period.
- All leaves and vegetation debris must be removed at regular intervals during the declared fire danger period.
- Within 10 metres of a building, flammable objects must not be located close to the vulnerable parts of the building.
- Plants greater than 10 centimetres in height must not be placed within 3m of a window or glass feature of the building.
- Shrubs must not be located under the canopy of trees.
- Individual and clumps of shrubs must not exceed 5 sq. metres in area and must be separated by at least 5 metres.
- Trees must not overhang or touch any elements of the building.
- The canopy of trees must be separated by at least 5 metres.
- There must be a clearance of at least 2 metres between the lowest tree branches and ground level.

Access

The following design and construction requirements apply from the road to the Dwelling and to within 4m of the water supply outlet to allow Emergency Vehicle access.

- All Weather construction
- A load limit of at least 15 tonnes
- Provide a minimum trafficable width of 3.5m
- Be clear of encroachments for at least 0.5m on either side and at least 4m vertically.
- Curves in driveway must have a minimum inner radius of 10 metres.
- The average grade must be no more than 1 in 7 (14.4%) (8.1°) with a maximum of no more than 1 in 5 (20%) (11.3°) for no more than 50 metres.
- Dips must have no more than a 1 in 8 (12.5%) (7.1°) entry and exit angle.

Water Supply

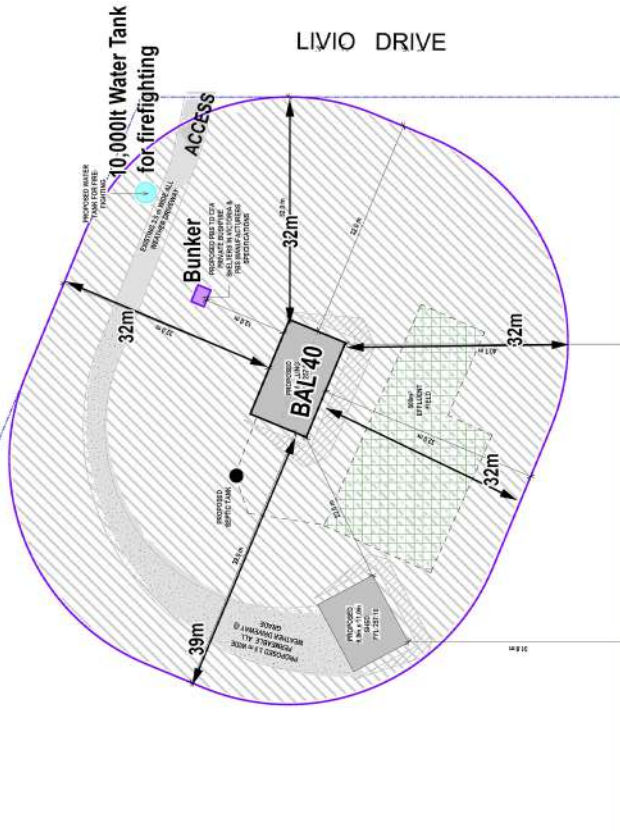
A minimum of 10,000 litres of on-site static storage must be provided on the lot and be maintained solely for firefighting.

The water supply must:

- Be stored in an above ground water tank constructed of concrete or metal.
- Have all fixed above ground water pipes and fittings required for firefighting purposes made of corrosion resistant metal.
- Include a separate outlet for occupant use.
- Be readily identifiable from the building or appropriate identification signage to the satisfaction of the relevant fire authority.
- Be located within 60 metres of the outer edge of the approved building.
- The outlets of the water tank must be within 4 metres of the accessway and unobstructed.
- Incorporate a separate ball or gate valve (British Standard Pipe (BSP 65 millimetre) and coupling (64 millimetre CFA 3 thread per inch male fitting).
- Any pipework and fittings must be a minimum of 65 millimetres (excluding the CFA coupling).

Construction Standards

The dwelling must be constructed to meet or exceed a Bushfire Attack Level of BAL 40



Prepared By:
Fire Front Consultancies
0409027450
firefrontconsultancies@gmail.com
BPAD Registration BPAD29087



Attachment 4 - Vegetation modifications and management required for defensible space.

The vegetation within the Defensible space must be modified and managed to ensure that it mitigates a bushfire as it approaches the structure. The following management prescriptions should be applied to any planning permit issues containing defensible space.

- Grass must be short cropped and maintained during the declared fire danger period.
- All leaves and vegetation debris must be removed at regular intervals during the declared fire danger period.
- Within 10 meters of a building, flammable objects must not be located close to the vulnerable parts of the building.
- Plants greater than 10 centimeters in height must not be placed within 3m of a window or glass feature of the building.
- Shrubs must not be located under the canopy of trees.
- Individual and clumps of shrubs must not exceed 5 sq. meters in area and must be separated by at least 5 meters. Trees must not overhang or touch any elements of the building.
- The canopy of trees must be separated by at least 5 meters.
- There must be a clearance of at least 2 meters between the lowest tree branches and ground level.



Bushfire Management Plan - 61 Livio Drive, Gembrook

Version 10: 14/12/2025

ADVERTISED MATERIAL

Planning Application: T210451

Date Prepared: 10 April 2026

BIANCA MACCEY
 BUSHFIRE DESIGNER
 RBP: BP-AD 42382
 ABN: 95 133 659 607
 3 BELAIR CL SEVILLE 3139
 M: 0419529652
 E: biancamacey@gmail.com

DATE: 18/12/2025
 PROJECT: 621
 CLIENT:

Vegetation Management for Defendable Space

Defendable space for a distance of 32 metres around the proposed building (or to the property boundary, whichever is the lesser distance) to the north, east and south and 39m to the west must be provided where vegetation (and other flammable materials) will be modified and managed in accordance with the following requirements:

- Grass must be short cropped and maintained during the declared fire danger period.
- All leaves and vegetation debris must be removed at regular intervals during the declared fire danger period.
- Within 10 metres of a building, flammable objects must not be located close to the vulnerable parts of the building.
- Plants greater than 10 centimetres in height must not be placed within 3m of a window or glass feature of the building.
- Shrubs must not be located under the canopy of trees.
- Individual and clumps of shrubs must not exceed 5 sq. metres in area and must be separated by at least 5 metres.
- Trees must not overhang or touch any elements of the building.
- The canopy of trees must be separated by at least 5 metres
- There must be a clearance of at least 2 metres between the lowest tree branches and ground level.

Access

The following design and construction requirements apply from the road to the Dwelling and to within 4m of the water supply outlet to allow Emergency Vehicle access.

- All Weather construction
- A load limit of at least 15 tonnes
- Provide a minimum trafficable width of 3.5m
- Be clear of encroachments for at least 0.5m on either side and at least 4m vertically.
- Curves in driveway must have a minimum inner radius of 10 metres.
- The average grade must be no more than 1 in 7 (14.4%) (8.1°) with a maximum of no more than 1 in 5 (20%) (11.3°) for no more than 50 metres.
- Dips must have no more than a 1 in 8 (12.5%) (7.1°) entry and exit angle.

Water Supply

A minimum of 10,000 litres of on-site static storage must be provided on the lot and be maintained solely for firefighting.

The water supply must:

- Be stored in an above ground water tank constructed of concrete or metal.
- Have all fixed above ground water pipes and fittings required for firefighting purposes made of corrosive resistant metal.
- Include a separate outlet for occupant use.
- Be readily identifiable from the building or appropriate identification signage to the satisfaction of the relevant fire authority.
- Be located within 60 metres of the outer edge of the approved building.
- The outlet/s of the water tank must be within 4 metres of the accessway and unobstructed.
- Incorporate a separate ball or gate valve (British Standard Pipe (BSP 65 millimetre) and coupling (64 millimetre CFA 3 thread per inch male fitting).
- Any pipework and fittings must be a minimum of 65 millimetres (excluding the CFA coupling).

Construction Standards

The dwelling must be constructed to meet or exceed a Bushfire Attack Level of BAL 40

This copied document is made available for the purpose of the planning process as set out in the *Planning and Environment Act 1987*. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.

PROJECT ADDRESS:

61 LIVIO DRIVE
 GEMBROOK 3783

DRAWING TITLE:

BUSHFIRE MANAGEMENT PLAN

DRAWING A05

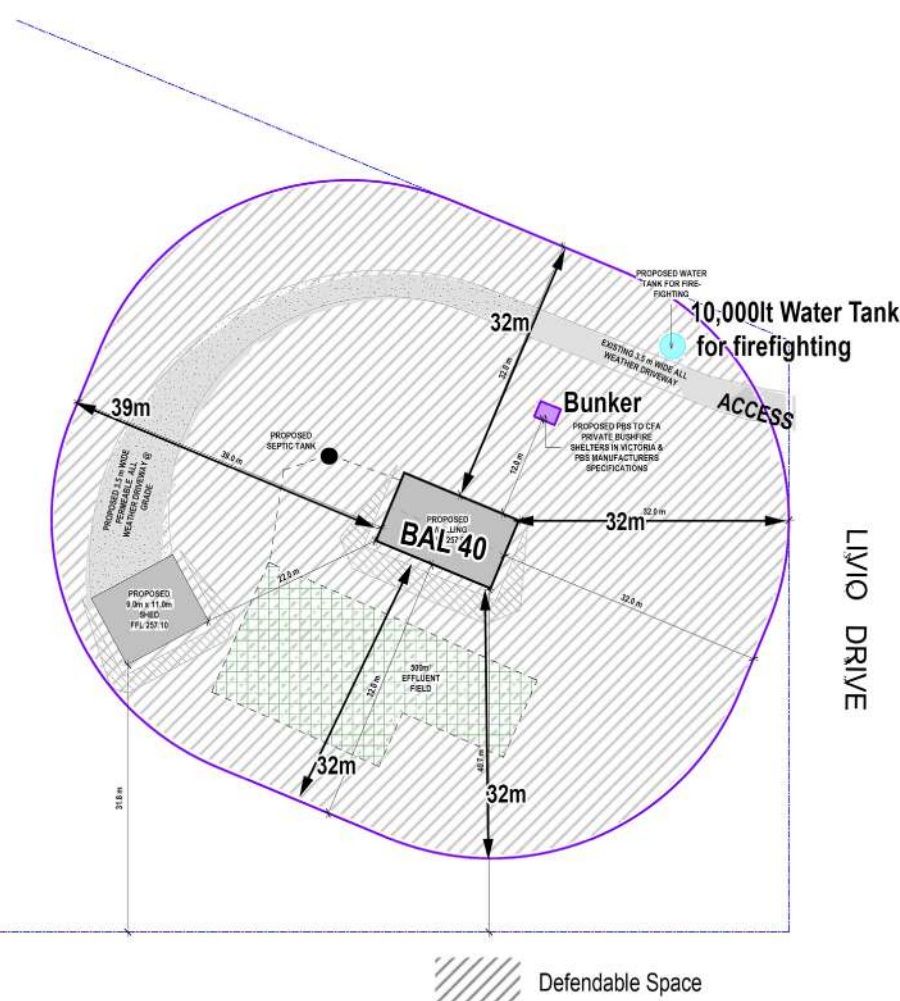
NUMBER:

REVISION: REV M

REV	DATE	DESCRIPTION
1	10/04/2026	ISSUE FOR PERMIT
2	10/04/2026	ISSUE FOR PERMIT
3	10/04/2026	ISSUE FOR PERMIT
4	10/04/2026	ISSUE FOR PERMIT
5	10/04/2026	ISSUE FOR PERMIT
6	10/04/2026	ISSUE FOR PERMIT
7	10/04/2026	ISSUE FOR PERMIT
8	10/04/2026	ISSUE FOR PERMIT
9	10/04/2026	ISSUE FOR PERMIT
10	10/04/2026	ISSUE FOR PERMIT

SCALE: As indicated

DO NOT SCALE DRAWINGS. USE METRE DIMENSIONS ON THE DRAWING. DIMENSIONS SHOWN ON THIS PLAN APPLY TO ALL DIMENSIONS UNLESS OTHERWISE SPECIFIED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROVISION OF ALL MATERIALS AND SHALL BE RESPONSIBLE FOR THE PROVISION OF ALL DIMENSIONS COMPATIBLE WITH THE DIMENSIONS OF ANY MATERIALS TO BE USED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROVISION OF ALL DIMENSIONS COMPATIBLE WITH THE DIMENSIONS OF ANY MATERIALS TO BE USED.



FIREFRONT CONSULTANCIES 
 ABN: 23096554132 www.firefrontreports.com.au

Prepared By:
 Fire Front Consultancies
 0409027450
 firefrontconsultancies@gmail.com
 BPAD Registration BPAD29087

Arboricultural Report *Version 4*



ADVERTISED MATERIAL

Planning Application: T210451

Date Prepared: 10 April 2026

This copied document is made available for the purpose of the planning process as set out in the Planning and Environment Act 1987. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.

61 LIVIO DRIVE, GEMBROOK, 3783



Report prepared by
Tabitha K Barclay *BaAppSc (hort),*
ISA member, TRAQ accredited,
Accredited Native Vegetation Assessor

& Coral Jeffs *BaAppSc (hort),*
Accredited Native Vegetation Assessor

December 2025

Healesville Plants

Mobile: 0438 731 214
healesvilleplants@gmail.com

ABN 189 89 339 382

Contents

	Summary.....	2
1.0	Introduction.....	3
2.0	Site Description.....	4
	Map 1 Aerial image	
	Map1a) Close up aerial image	
	Map 2 Contour map	
	Map 3 Location map	
	Map 4/a Site Map/detail, inc. tree locations, TPZ's & encroachment	
	Map 5 BMP map- defensible space	
3.0	Vegetation Assessment.....	8
	Pictorial Assessment	
4.0	Recommendations & Conclusions.....	63
5.0	References.....	71
6.0	Appendix- Preliminary Vascular Plant survey, NVR & Offset reports.....	72

Summary

December '25 – A new proposal has developed due to the cost of building and feedback from CFA, hence the proposed dwelling has pivoted slightly to be 32m from & parallel to the north boundary and 32m at the closest point to the east boundary. The new Defendable Space; to be minimum 32m setback from property boundaries and to be 39m to the west, there is no longer a modified 25m modified DS. This has resulted in 5 trees now being saved from removal.

December '24 - Initial visits were undertaken for design & development of previous proposals sent into council whereby trees were numbered and assessed, however, to avoid and minimise tree loss the development has been drastically altered many times, hence this version 3 which has been developed after extensive discussions and meetings with council, CFA and DEECA on how to progress the application and fully minimise vegetation removal and modification. This version sees the removal of the additional 25m defensible space area (where only understorey was to be removed) and increases the BAL of the construction of the dwelling to 40 from 29. The shed and water tank have been relocated, the installation of a Personal Bushfire Shelter has also been added, effluent field reconfigured and tree removal minimised within the defensible space area, whilst still fully meeting the vegetation requirements of the BMO.

Tree numbering has been kept consistent across the different version of the reports and proposals for ease of tracking. The original assessment included noting the trees within the development zone (within 15m of works) as letters ('A-Z') and the trees associated with the DS numbered (1-143), these numbers have been kept in this report to reflect the trees tagged onsite and for consistency of tracking the extensive minimisation process. There have been 2 (dead) trees that were noted in the original visit that had fallen in storms on follow-up visits, #'s 59 & 60 these are no longer applicable.

The tree assessment Table 3.0 includes all trees proposed for retention within the defendable space 32m in all directions or to Property Boundary, which have been fully assessed as well as an impact assessment for any trees within 10m of proposed new works (or affected up to maximum distance of 15m). Trees proposed for removal are shown on the site plans and tabled in section 4.0.

Although at onsite meetings (7/6/23 & 25/7/24), it was agreed that we had minimised vegetation removal and modification to the greatest extent possible with the dwelling design at that time, Council requested that we document the journey undertaken to reach a more desirable proposal as the previous proposals triggered a detailed pathway application under Cl.52.17; this proposal drastically minimises not only the development footprint, but also vegetation removal, whilst still meeting fire safety concerns and proposing a fit for purpose modest dwelling footprint.

Minimisation was achieved by the following:

The original design ran north-south with a garage (larger footprint and considerably larger cuts and fill area due to contours), and the preferred shed was 12x12m = 144m² that required its own Defendable Space which added to the dwelling Defendable Space and extended the modified vegetation extent greater than 0.5ha, therefore a detailed pathway.

To mitigate this and reduce the extent of vegetation removal, the orientation of the dwelling has been pivoted to be east-west along the contour, the garage removed from the dwelling design to reduce the dwelling footprint and defendable space distance, and the shed reduced to under 100m², therefore not requiring extra DS and fitting all works completely within the Dwelling Defendable Space.

These measures were to address and achieve the avoid, minimise, offset requirements to ensure the development extent of modified and lost native vegetation to be under 0.5Ha to avoid a detailed pathway in the NVIM Tool (Native Vegetation Information Management), more costly offsets and reporting, and more importantly to retain more vegetation.

The dwelling location was constrained by the required boundary offsets for defendable space = minimum 32m. The effluent field is completely within the defendable space modified area and existing driveway (for 10m into site) and existing crossover is utilised. **All** of the development is now confined to within the defendable space area.

Introduction

This arboricultural report has been prepared by Tabitha Barclay (*BaAppSc (hort)*) and Coral Jeffs (*BaAppSc (hort)*) under instructions by the owners Amy Volta and Martin Malempre of 61 Livio Dve, Gembrook, located in the Cardinia Shire Council, where an on-site assessment of the trees is required to ascertain the impact of a proposed new dwelling, shed with associated accessways, effluent field and the designated Defendable Space (DS) on an area that is partially cleared of understorey plants, but has many large and very large canopy trees (LOT/VLOTS).

This Version 4. addresses 51 trees; being those within the defendable space perimeter and another 8 trees within 15m of new works, outside of the defendable space perimeter, 6 of these 8 on the subject property and 2 on the neighbouring property to the north.

The remaining trees are identified (numbered and lettered) on the Site Plan and on site. These additional 114 trees (of 173 original total) that were originally identified for previous proposals that had a larger house with a garage and larger shed in different locations and altered the Defendable Space; the plans have since been modified to avoid and minimise tree removal however numbering/lettering identification has been retained as the trees are tagged on-site. Although these trees are no longer the subject of this assessment, they demonstrate the minimisation process (refer Appendices).

Any trees that can be removed without a permit, i.e. along a fenceline under Bushfire Mitigation rules: Clause 52.12-2. The size, health and any particular issues for each tree were noted. The general health of the trees assessed varied with some deadwood, and minor signs of stress, i.e. insect damage and epicormic growth. All the trees addressed are indigenous to the area.

Site description 2.0

Tabitha Barclay and Coral Jeffs undertook the original tree assessment in September and December 2021, and this assessment was undertaken in June 2023, July 2024 & September 2025. Inspection was made at ground level and observations, recommendations and conclusions reached in light of our experience.

Council Property Number: 2496800500
SPI (Standard Parcel Identifier): 1\TP100357
Lot and Plan Number: Lot 1 TP100357
Directory Reference: Melway 299 E8

The ~8.1-acre property is located on Livio Drive, Gembrook, the owners have owned the property for ~3 years. It is ~250m ASL with a westerly aspect and currently consists of some cleared bushland with existing driveways and tracks, open shed structures, set amongst bushland areas to the west, leading to Shepherds Creek. This property is in a well - established area, with rural residential and small farm properties in Gembrook. There is a mix of smaller and larger properties in the immediate surrounds, with fragmented treed areas.



Map 1. Aerial image (Source Vicplan 2025)



Map 1a). Close up aerial image of property (Source Cardinia Pozi 2025)



Map 1b). Close up aerial image of proposed house site (Source Cardinia Pozi 2025)


ADVERTISED MATERIAL
 Planning Application: T210451
 Date Prepared: 10 April 2026

This copied document is made available for the purpose of the planning process as set out in the *Planning and Environment Act 1987*. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.

The site is zoned Rural Conservation – Schedule 1 (RCZ1) with the planning overlays; Bushfire Management Overlay (BMO) and Environmental Significance Overlay – Schedule 1 (ESO1). The original indigenous vegetation expected is Highlands Southern Fall EVC 29 – Damp Forest with the predominant tree species expected being *Eucalyptus cypellocarpa*, *E. obliqua* & *E. globulus* ssp. *bicostata*. The Cardinia vegetation zoning is Zone 1, Tall Wet Forest where *Allocasuarina littoralis*, *Eucalyptus baxteri*, *E. cypellocarpa*, *E. obliqua*, *E. radiata* and *E. viminalis* ssp. *viminalis* are expected. Some of the canopy trees onsite are consistent with this zoning and EVCs with the predominant species in the development area being *E. obliqua*, *E. sieberi* & *E. radiata*.

There is a diverse array of remnant indigenous lower storey species present on the property in a modified state, as part of the site proposed as the development zone has long been cleared and managed for fire protection. There are quite extensive remnant bushland areas beyond the cleared area with good biodiversity. There are quite well-established formed driveways leading to the proposed development and tracks for maintenance of a potential Conservation Zone.



Map 2. Contours (Source Mapshare 2021), property ~240-260m ASL



Map 3. Location (Source Vicplan 2025)


Cardina
ADVERTISED MATERIAL
 Planning Application: T210451
 Date Prepared: 10 April 2026

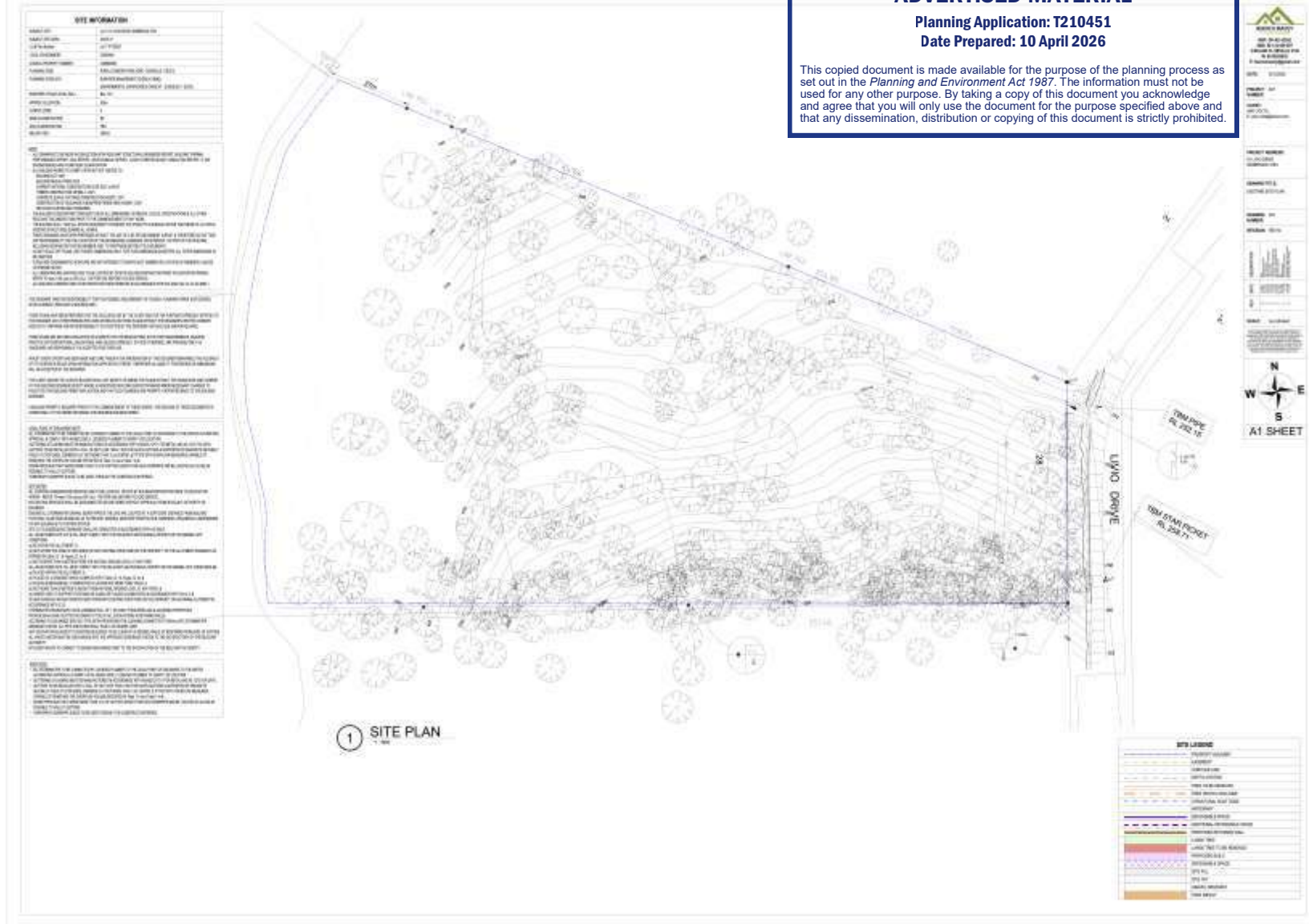
This copied document is made available for the purpose of the planning process as set out in the *Planning and Environment Act 1987*. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.

ADVERTISED MATERIAL

Planning Application: T210451

Date Prepared: 10 April 2026

This copied document is made available for the purpose of the planning process as set out in the *Planning and Environment Act 1987*. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.



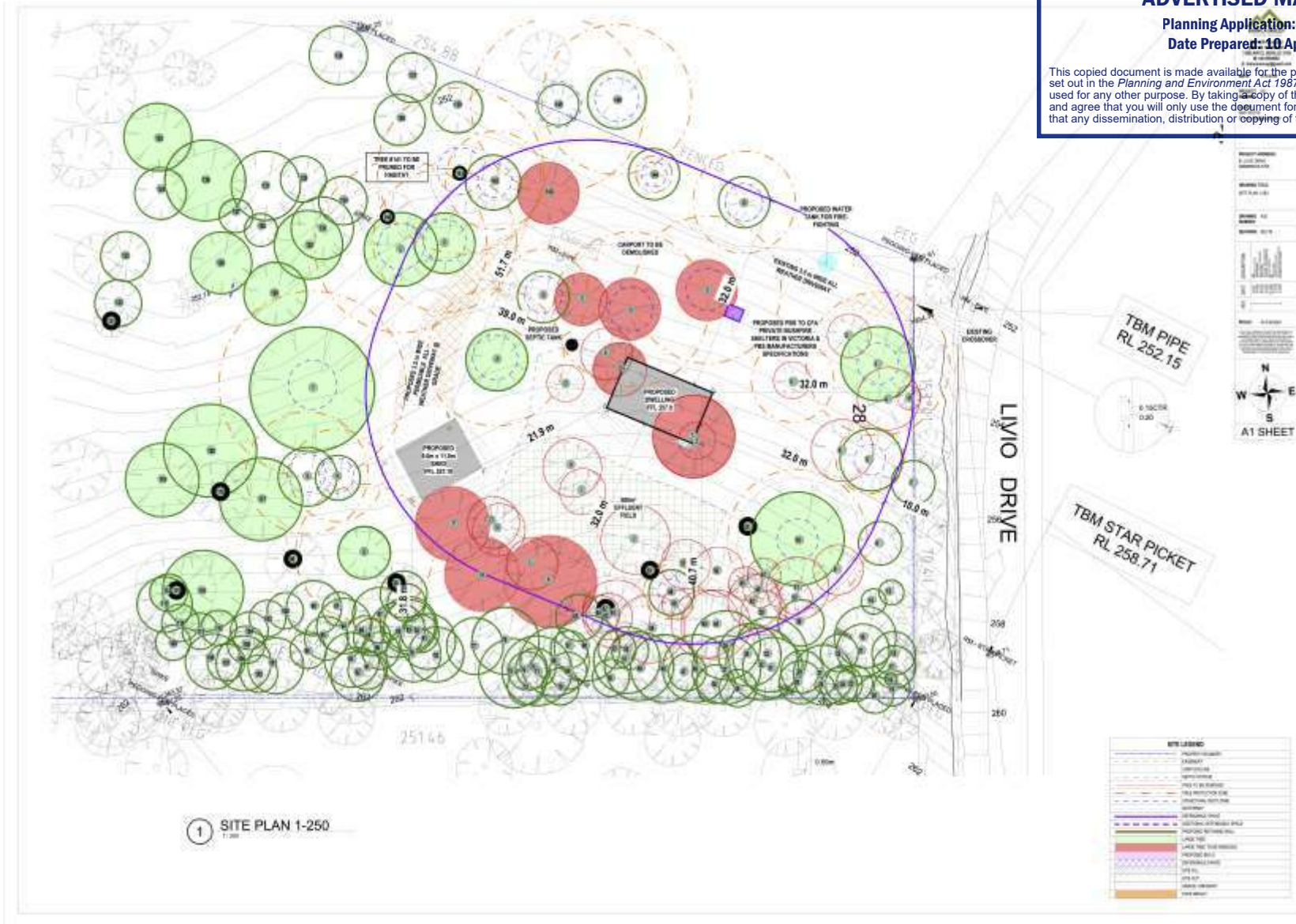
Map 4. Whole Site map including tree location and contours

ADVERTISED MATERIAL

Planning Application: T210451

Date Prepared: 10 April 2026

This copied document is made available for the purpose of the planning process as set out in the *Planning and Environment Act 1987*. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.



Map 4a Site map – proposed development with TPZ's & SRZ's of trees to remain within 15m of new works

Vegetation Assessment

Table 1. Tree List 61 Livio Dve, Gembrook – Impact Assessment 32m (N, E, S) 39m (W) Defendable space & 5m of new works

This copied document is made available for the purpose of the planning process as set out in the *Planning and Environment Act 1987*. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that you will not disseminate or otherwise use this document for any other purpose. Copying or distribution of this document is strictly prohibited.

No.	Species	C cm	DBH/ DSH cm	TPZ/ NRZ m	SRZ m	Hgt- m	Wth- m	L.S.	Sig.	ULE yrs	Struct	Roots	Cpy	Ret Value	R/ Ret	Notes
Trees in Defendable Space – development zone/ defendable space (lettered)																
A	<i>Eucalyptus radiata</i> (Narrow-leaf Peppermint) LOT	289	92	11.0	3.5	34	N-S 13 E-W 14	Mat	High	10+	3	2	3	High	Ret	Wide bifurcation up high - repeated, large scar E side, large fire scar S side – termites in trunk, mature & young epicormics, lots of large & fine deadwood, broken branches, apical dieback, existing driveway within SRZ, altered NGL within RZ, insect damage, <i>bent trunk, reasonable exposed & damaged SR. Requires weight reduction and structural prune once others are removed.</i> Minor TPZ incursion proposed from driveway at NGL.
B	<i>Eucalyptus radiata</i>	192	61	7.3	3.0	34	N-S 9 E-W 11	Mat	High	7+	2	2	2	Mod	Ret	Top bent SW, altered NGL within RZ, existing driveways within SRZ, fine & large deadwood, mature & young epicormics, insect damage, <i>Bracket fungi, thinning canopy. Requires weight reduction and</i>

ADVERTISED MATERIAL

No.	Species	C cm	DBH/ DSH cm	TPZ/ NRZ m	SRZ m	Hgt- m	Wth- m	L.S.	Sig.	ULE yrs	Struct	Roots	Cpy	Ret Value	R/ Ret	Notes
																Planning Application: T210451 Date Prepared: 10 April 2026 This copied document is made available for the purpose of the planning process as set out in the Planning and Environment Act 1987. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination distribution or publication of this information is strictly prohibited.
C	<i>Eucalyptus obliqua</i> (Messmate) LOT	327	104	12.5	3.5	34	N-S 13 E-W 10	Mat	High	7+	2	2	2	Mod	R	<i>others are removed.</i> High asymmetrical bifurcation, W co-dependant lost apical dominance, lots of broken limbs, large & fine deadwood, >50% epicormics – mature & young, leaning W, existing driveways within SRZ, altered NGL within RZ, <i>large scar – ripped N co-dependant, large gall, small hollow developing E side – important to observe as removal is underway for any faunal inhabitants.</i>
D	<i>Eucalyptus obliqua</i> LOT	324	103	12.4	3.5	34	N-S 19 E-W 12	Mat	High	10+	3	2	2	High	R	Lots of large & fine deadwood, mistletoe in canopy, altered NGL within RZ, existing driveway within SRZ, exposed & damaged SR, epicormics, insect damage, <i>old scar at base – good response growth, bends in trunk, peripheral dieback, bulge in trunk at ~2m – possible superficial bark.</i>

ADVERTISED MATERIAL

No.	Species	C cm	DBH/ DSH cm	TPZ/ NRZ m	SRZ m	Hgt- m	Wth- m	L.S.	Sig.	ULE yrs	Struct	Roots	Cpy	Ret Value	R/ Ret	Notes
E	<i>Eucalyptus sieberi</i> (Silvertop Ash)	270	86	10.3	3.2	30	N-S 12 E-W 16	Mat	High	15+	4	2	4	Mod	R	<p>Planning Application: T210451 Date Prepared: 10 April 2026</p> <p>This copied document is made available for the purpose of the planning process as set out in the Planning and Environment Act 1987. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any distribution of this document is at your own risk.</p> <p>exposed & damaged SR, altered NGL within RZ, existing driveway within SRZ, some dieback from tips, <i>bend in trunk – main trunk ~60° N – self-corrected, low LCR. Not suitable as a SA.</i></p>
F	<i>Eucalyptus radiata</i> LOT	298	97	11.6	3.3	26	N-S 13 E-W 18	Mat	High	10+	3	2	3	Mod	R	<p>Asymmetrical bifurcation up high N-S, broken limbs, large & fine deadwood, mature & young epicormics, exposed & damaged SR, existing driveway within TPZ, 1-sided E – allelopathic effect from #C, E & G, altered NGL within RZ, large galls on trunk, <i>massive oozy gall – actively dripping sap, also sap oozing from trunk.</i></p>
G	<i>Eucalyptus radiata</i>	245	78	9.4	3.1	28	N-S 14 E-W 12	Mat	High	7+	2	3	3	Mod	R	<p>High asymmetrical bifurcation, lots of large & fine deadwood, mature & young epicormics, altered NGL within RZ, existing driveway within TPZ, broken limbs, top to the W & N, <i>main trunk leaning ~70° W, exposed &</i></p>

ADVERTISED MATERIAL

No.	Species	C cm	DBH/ DSH cm	TPZ/ NRZ m	SRZ m	Hgt- m	Wth- m	L.S.	Sig.	ULE yrs	Struct	Roots	Cpy	Ret Value	R/ Ret	Notes
																Planning Application: T210451 Date Prepared: 10 April 2026 This copied document is made available for the purpose of the planning process as set out in the Planning and Environment Act 1987. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination distribution of this document is at your own risk.
H	<i>Eucalyptus obliqua</i>	251	82	9.8	3.2	30	N-S 17 E-W 16	Mat	High	10+	3	3	3	Mod	R	<i>limbs N & W.</i> High asymmetrical bifurcation, lots of large & fine deadwood, mature & young epicormics, insect damage.
I	<i>Eucalyptus obliqua</i>	135	43	5.2	2.5	25	N-S 7 E-W 9	Mat	High	5+	2	3	2	Low	R	Twisted trunk, bent top E, insect damage, lots of large & fine deadwood, epicormics, <i>main trunk leaning S ~50°, bent at ~6m then ~12m, lots of sap on trunk, not suitable SA.</i>
J	<i>Eucalyptus radiata</i>	223	73	8.8	3.1	25	N-S 14 E-W 13	Mat	High	10+	3	2	4	High	R	Mature & young epicormics, large & fine deadwood, altered NGL in RZ, asymmetrical bifurcation, exposed SR, insect damage, <i>fire scar ~3m on S side – good response growth.</i>
K	<i>Eucalyptus radiata</i> LOT	302	96	11.5	3.5	30	N-S 22 E-W 15	Mat	High	12+	3	2	4	High	R	Slight lean E, majority of canopy to the S, lots of broken limbs, large & fine deadwood, exposed & damaged SR. Requires reduction pruning and dead wooding, <i>lots of sap</i>

ADVERTISED MATERIAL

No.	Species	C cm	DBH/ DSH cm	TPZ/ NRZ m	SRZ m	Hgt- m	Wth- m	L.S.	Sig.	ULE yrs	Struct	Roots	Cpy	Ret Value	R/ Ret	Notes
																Planning Application: T210451 Date Prepared: 10 April 2026 This copied document is made available for the purpose of the planning process as set out in the Planning and Environment Act 1987. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or disclosure of this document is strictly prohibited.
L	<i>Eucalyptus radiata</i>	198	63	7.6	2.7	28	N-S 8 E-W 7	Mat	Mod	5+	2	3	3	Mod	R	Altered NGL, lots of large & fine deadwood, allelopathic effect from #M, lots of epicormics – including up trunk, low LCR.
M	<i>Eucalyptus obliqua</i> VLOT	424	135	15.0	4.0	32	N-S 18 E-W 24	Mat +	High	7+	3	3	3	High	R	Lots of large & fine deadwood, mature & young epicormics, top bent W, large fire scar/ hollowing from base, altered NGL in RZ. Check hollows prior to & during removal.
N	<i>Eucalyptus radiata</i>	198	63	7.6	2.8	26	N-S 8 E-W 11	Mat	High	7+	2	3	3	High	R	High asymmetrical wide bifurcation, S co-dependant is dead, N co-dependant hollows forming, lost limbs, large & fine deadwood, mature & young epicormics, altered NGL, weighted heavily E. Check hollows prior to & during removal.
O	<i>Eucalyptus obliqua</i>	129	41	4.9	2.3	14	N-S 11 E-W 9	Mat	High	7+	2	3	3	Mod	R	Bent & leaning N, high bifurcation, mature & young epicormics, large & fine deadwood, thickening

ADVERTISED MATERIAL

No.	Species	C cm	DBH/ DSH cm	TPZ/ NRZ m	SRZ m	Hgt- m	Wth- m	L.S.	Sig.	ULE yrs	Struct	Roots	Cpy	Ret Value	Ret	Notes
																<p>Planning Application: T210451 Date Prepared: 10 April 2026</p> <p>This copied document is made available for the purpose of the planning process as set out in the <i>Planning and Environment Act 1987</i>. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is prohibited.</p>
																<p>on E side – possibly lost a co-dependant, small hollows, had mistletoe – now dead, insect damage, altered NGL, <i>scar through trunk from ~2m – 5m long – fair response growth, not suitable as a SA, termites</i>. Check hollows prior to & during removal.</p>
P	<i>Eucalyptus obliqua</i> LOT	330	105	12.6	3.5	30	N-S 16 E-W 14	Mat +	High	5+	3	3	3	High	R	<p>Asymmetrical bifurcation, N co-dependant lost apical dominance – replaced by poorly attached over mature epicormics, scar to join <i>from apex to 1st union on main trunk ~9m – possible lightning strike</i>, hollows forming, burnt outer trunk, large & fine deadwood, epicormics, insect damage, altered NGL, <i>existing driveway within TPZ</i>.</p>
Q	<i>Eucalyptus radiata</i> LOT	289	92	11.0	3.4	28	N-S 17 E-W 18	Mat	High	7+	3	3	2	High	Ret	<p>Out of DS area, minor incursion <10% TPZ area from shed and works.</p>

ADVERTISED MATERIAL

No.	Species	C cm	DBH/ DSH cm	TPZ/ NRZ m	SRZ m	Hgt- m	Wth- m	L.S.	Sig.	ULE yrs	Struct	Roots	Cpy	Ret Value	Ret	Notes
R	<i>Eucalyptus obliqua</i>	195	62	7.4	2.8	26	N-S 12 E-W 9	Mat	High	10+	2	3	2	Mod	Ret	Planning Application: T210451 Date Prepared: 10 April 2026 This copied document is made available for the purpose of the planning process as set out in the Planning and Environment Act 1987. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any distribution, disclosure, copying, or reuse of this document is prohibited.
S	<i>Eucalyptus obliqua</i>	256	82	9.8	3.1	28	N-S 17 E-W 14	Mat	High	7+	3	3	3	Mod	Ret	Out of DS area, no incursion from shed and works.
T	<i>Eucalyptus obliqua</i> VLOT	424	135	15.0	3.9	30	N-S 18 E-W 18	Mat	High	7+	3	2	3	High	Ret	Out of DS area, minor incursion <10% TPZ area from shed and works.
U	<i>Eucalyptus obliqua</i> LOT	361	115	13.8	3.7	33	N-S 28 E-W 16	Mat	High	10+	3	2	3	High	Ret	Out of DS area, minor incursion <10% TPZ area from driveway and works.
V	<i>Eucalyptus sieberi</i> LOT	308	98	11.8	3.4	34	N-S 14 E-W 13	Mat	High	15+	4	2	4	High	Ret	Symmetrical bifurcation up high - repeated, epicormics, large & fine deadwood, broken limbs, altered NGL, exposed & damaged SR, <i>insect damage</i> . Suitable as a SA. Minor TPZ incursion from works to driveway.
W	<i>Eucalyptus radiata</i>	217	69	8.3	3.0	26	N-S 13 E-W 13	Mat	High	10+	3	3	4	Mod	Ret	Symmetrical bifurcation up high- <i>tight union</i> , <i>included bark</i> - repeated, mature & young epicormics ~ ~60% of

ADVERTISED MATERIAL

No.	Species	C cm	DBH/ DSH cm	TPZ/ NRZ m	SRZ m	Hgt- m	Wth- m	L.S.	Sig.	ULE yrs	Struct	Roots	Cpy	Ret Value	R/ Ret	Notes
																Planning Application: T210451 Date Prepared: 10 April 2026 This copied document is made available for the purpose of the planning process as set out in the Planning and Environment Act 1987. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination distribution or copying is prohibited.
																deadwood, fence in SRZ, works within TPZ, hollowing at base – fire scar SW side, termites at base, <i>bends in trunk, S limb of N co-dependant connecting to #X</i> . Minor new TPZ incursion from driveway.
X	<i>Eucalyptus sieberi</i> LOT	308	98	11.8	3.4	30	N-S 16 E-W 16	Mat	High	7+	3	2	3	High	R	Symmetrical bifurcation up high, large & fine deadwood, lots of broken limbs, thin canopy, some dieback from tips, existing driveway within SRZ, exposed & broken SR, altered NGL, excavation at base, hollows forming.
Y	<i>Eucalyptus radiata</i> LOT	314	100	12.0	3.5	26	N-S 14 E-W 14	Mat	High	10+	2	3	3	High	R	Leaning ~60° NE then S – self-corrected, bifurcated up high – repeated, mature & young epicormics, large & fine deadwood, exposed & damaged SR, galls, altered NGL, <i>scar S side at base, gapping ~3m scar W side – filling with water - rot.</i>

No.	Species	C cm	DBH/ DSH cm	TPZ/ NRZ m	SRZ m	Hgt- m	Wth- m	L.S.	Sig.	ULE yrs	Struct	Roots	Cpy	Ret Value	R/ Ret	Notes	
Z	<i>Eucalyptus radiata</i>	100	32	3.8	2.1	14	N-S 10 E-W 9	Mat	High	10+	3	3					<p>Planning Application: T210451 Date Prepared: 10 April 2026</p> <p>This copied document is made available for the purpose of the planning process as set out in the Planning and Environment Act 1987. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the information for the purpose specified above and that any distribution of this document is at your own risk, not of the Council.</p>
Trees in Defendable Space – development zone/ defendable space (numbered)																	
1	<i>Eucalyptus radiata</i> LOT	302	96	3.3	11.5	28	N-S 16 E-W 18	Mat	High	10+	3	2	3	High	Ret		Lost limbs, fence within TPZ, large & fine deadwood, track within SRZ, exposed & damaged SR, 1-sided N & E, <i>allelopathic & phototropic effect from others, existing driveway within TPZ.</i>
2	<i>Eucalyptus obliqua</i>	226	72	8.6	3.1	28	N-S 18 E-W 13	Mat	High	10+	3	3	3	Mod	R		<i>High asymmetrical E-W bifurcation, large & fine deadwood, epicormics, insect damage, weighted N, driveway within TPZ. Not suitable as SA.</i>
3	<i>Eucalyptus radiata</i>	173	55	6.6	2.8	28	N-S 10 E-W 10	Mat	High	12+	3	3	4	High	R		<i>High symmetrical bifurcation, large & fine deadwood. Suitable as a SA specimen.</i>
4	<i>Eucalyptus radiata</i>	276	88	10.6	3.2	28	N-S 13 E-W 18	Mat	High	10+	3	3	3	Mod	R		<i>Hollow NE ~4m, scar NW side – good response growth, large broken limbs, existing accessway within SRZ, large & fine deadwood, epicormics, repeated symmetrical bifurcation, E co-dependant broken – ripped</i>

ADVERTISED MATERIAL

No.	Species	C cm	DBH/ DSH cm	TPZ/ NRZ m	SRZ m	Hgt- m	Wth- m	L.S.	Sig.	ULE yrs	Struct	Roots	Cpy	Ret Value	Ret	Notes
																Planning Application: T210451 Date Prepared: 10 April 2026 This copied document is made available for the purpose of the planning process as set out in the Planning and Environment Act 1987. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination distribution of this document is prohibited.
4A	<i>Eucalyptus radiata</i>	60	19	2.3	1.8	11	N-S 6 E-W 6	Mat	High	7+	2	3	3	Low	R	Growing right on fenceline, fence & existing accessway within SRZ, lost apical dominance, fine deadwood, majority of canopy is epicormics. Exempt – Clause 52.12-2 <1m from boundary fence.
5	<i>Eucalyptus radiata</i>	141	45	5.4	2.5	24	N-S 12 E-W 11	Mat	High	10+	3	4	3	High	Ret	Bifurcated up high – repeated, large & fine deadwood, 1-sided E – allelopathic effect from #6, existing access within SRZ. Requires structural prune.
6	<i>Eucalyptus obliqua</i>	198	63+ 55= 86	10.3	3.6	26	N-S 13 E-W 16	Mat +	High	5+	2	4	2	Low	R	Low LCR, existing accessway within SRZ, lots of large & fine deadwood, symmetrical bifurcation from base – repeated – with included bark – rot in crotch, mature & young epicormics - ~ all of canopy, insect damage, peripheral dieback.
7	<i>Eucalyptus radiata</i>	144	46	5.5	2.5	15	N-S 8 E-W 10	Mat	High	7+	2	3	2	Low	Ret	Was bifurcated low down - S co-dependant broken off – rot – good response growth, repeated

ADVERTISED MATERIAL

No.	Species	C cm	DBH/ DSH cm	TPZ/ NRZ m	SRZ m	Hgt- m	Wth- m	L.S.	Sig.	ULE yrs	Struct	Roots	Cpy	Ret Value	Ret	Notes
																Planning Application: T210451 Date Prepared: 10 April 2026 This copied document is made available for the purpose of the planning process as set out in the Planning and Environment Act 1987. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination or distribution of any information contained herein is strictly prohibited.
																<i>asymmetrical bifurcation with included bark, low LCR, large & fine deadwood, insect damage, existing accessway within SRZ, altered NGL, bends in trunk – to W ~50° then self-corrected, termites.</i>
8	<i>Eucalyptus radiata</i>	163	46	5.5	2.5	15	N-S 8 E- W 10	Mat	High	7+	2	3	2	Low	Ret	<i>Insect damage to canopy, altered NGL Bends in trunk, repeated asymmetrical bifurcation.</i>
9	<i>Eucalyptus radiata</i>	175	56	6.7	2.8	22	N-S 6 E-W 6	Mat +	High	5+	1	3	2	Low	R	<i>Guttering on top side of upper limbs, galls, mature & young epicormics – including up trunk, bifurcated – E co-dependant broken off, peripheral dieback S side, large & fine deadwood, serious structural defects on main trunk.</i>
10	<i>Eucalyptus radiata</i> LOT	286	91	10.9	3.4	28	N-S 16 E-W 16	Mat	High	10+	4	3	4	High	Ret	<i>Large & fine deadwood, epicormics, insect damage, lost large limbs, rangy. Balance prune to retain as SA, limb loss – ripped bark up high.</i>

ADVERTISED MATERIAL

No.	Species	C cm	DBH/ DSH cm	TPZ/ NRZ m	SRZ m	Hgt- m	Wth- m	L.S.	Sig.	ULE yrs	Struct	Roots	Cpy	Ret Value	R/ Ret	Notes
																Planning Application: T210451 Date Prepared: 10 April 2026 This copied document is made available for the purpose of the planning process as set out in the Planning and Environment Act 1987. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any distribution of the document is at your own risk.
11	<i>Eucalyptus obliqua</i>	151	48	5.8	2.6	26	N-S 12 E-W 12	Mat	High	15+	4	3				Large & fine deadwood, insect damage, existing accessway within SRZ.
12	<i>Eucalyptus obliqua</i>	78	25	3.0	2.0	16	N-S 5 E-W 7	Mat	High	15+	3	3	3	Low	R	Leaning ~60° to S – phototropic effect from #11, existing accessway within SRZ, bent top to E, large & fine deadwood.
30	<i>Acacia implexa</i>	60	19	2.3	1.8	15	N-S 7 E-W 7	Mat	High	10+	3	3	3	Mod	Ret	Fine deadwood, 1-sided N, bends in trunk, lost limbs, was symmetrically bifurcated – E co- dependant gone – hollow – good response growth, existing accessway within SRZ. Out of DS
38	<i>Eucalyptus obliqua</i>	163	52	6.2	2.7	28	N-S 12 E-W 14	Mat	High	15+	4	3	3	Mod	Ret	Large & fine deadwood, broken limbs, insect damage, nice taper, existing accessway within SRZ. Out of DS
39	<i>Eucalyptus obliqua</i>	94	30	3.6	2.1	24	N-S 6 E-W 6	Mat	High	12+	3	3	3	Low	R	Trunk bent N then S – self- corrected, twisted trunk, low LCR, fine deadwood, lost limbs, existing accessway within TPZ, insect damage, altered NGL, not suitable as a SA.

ADVERTISED MATERIAL

No.	Species	C cm	DBH/ DSH cm	TPZ/ NRZ m	SRZ m	Hgt- m	Wth- m	L.S.	Sig.	ULE yrs	Struct	Roots	Cpy	Ret Value	R/ Ret	Notes
																Planning Application: T210451 Date Prepared: 10 April 2026 This copied document is made available for the purpose of the planning process as set out in the Planning and Environment Act 1987. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the information for the purposes specified above and that any distribution of this information is limited to the purposes stated.
40	<i>Acacia dealbata</i>	85	27	3.2	2.4	18	N-S 8 E-W 8	Sen	High	<5	2	3	2	Low	R	Bent top N, co-dependant dead – included bark, lifting bark, large & fine deadwood, lost apical dominance.
41	<i>Eucalyptus radiata</i>	66	21	2.5	1.8	12	N-S 5 E-W 5	Mat +	High	5+	1	3	2	Low	R	Bent top N, large & fine deadwood, broken limbs, epicormics, peripheral dieback, poor taper.
42	<i>Eucalyptus macrorhyncha</i>	72	23	2.8	2.0	16	N-S 6 E-W 6	Mat	High	10+	3	3	3	Low	R	Bent N – allelopathic effect from #40, bends in trunk & twisted, large & fine deadwood, insect damage.
43	<i>Eucalyptus radiata</i>	141	45	5.4	2.6	16	N-S 10 E-W 10	Mat	High	5+	1	3	3	Low	R	Large scar S side from base ~6m, significantly bent to NW, rot in centre of trunk, termites, bracket fungi, majority of canopy is mature & young epicormics, asymmetrically bifurcated up high – both lost apical dominance, significance guttering on upper limbs.
44	<i>Eucalyptus sieberi</i>	132	42	5.0	2.4	26	N-S 7 E-W 12	Mat	High	15+	3	3	4	Mod	R	Broken limbs, large & fine deadwood, 1-sided E & N – allelopathic effect from #45, little branching S, altered NGL, existing accessway within SRZ.

ADVERTISED MATERIAL

No.	Species	C cm	DBH/ DSH cm	TPZ/ NRZ m	SRZ m	Hgt- m	Wth- m	L.S.	Sig.	ULE yrs	Struct	Roots	Cpy	Ret Value	R Ret	Notes
45	<i>Eucalyptus obliqua</i>	166	53	6.4	2.7	26	N-S 14 E-W 9	Mat	High	15+	4	3	4	Mod	R	Planning Application: T210451 Date Prepared: 10 April 2026 This copied document is made available for the purpose of the planning process as set out in the Planning and Environment Act 1987. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any distribution of this document is strictly prohibited.
																Limbs rubbing, DM into #55 – allelopathic effect from #44, overextended limbs N, little branching S, altered NGL, existing accessway within SRZ.
54	<i>Eucalyptus radiata</i>	199	38	4.6	2.3	26	N-S 8 E-W 8	Mat	High	15+	3	3	4	Mod	R	High bifurcation with included bark, low LCR, fine deadwood, bulge in trunk, existing accessway within SRZ.
55	<i>Eucalyptus macrorhyncha</i>	72	23	2.8	1.9	20	N-S 6 E-W 6	Mat	High	7+	3	3	3	Low	R	Bulge & large scar up high, epicormics up trunk, lots of large & fine deadwood, peripheral dieback.
56	<i>Eucalyptus macrorhyncha</i>	122	39	4.7	2.4	26	N-S 10 E-W 12	Mat	High	12+	3	3	3	Mod	Ret	Bent top – allelopathic effect from #45, little branching to S, 1-sided & overextended limbs N&E, large & fine deadwood.
57	<i>Eucalyptus macrorhyncha</i>	78	25	3.0	2.0	18	N-S 9 E-W 4	Mat	High	10+	2	3	3	Low	R	High symmetrical bifurcation, overextended N, phototropic effect #56.
58	<i>Eucalyptus obliqua</i>	94	30	3.6	2.1	16	N-S 8 E-W 10	Mat	High	7+	2	3	3	Low	R	Bent top, was bifurcated – S co-dependant broken off, top weighted N, mature epicormics S, N co-dependant lost apical

ADVERTISED MATERIAL

No.	Species	C cm	DBH/ DSH cm	TPZ/ NRZ m	SRZ m	Hgt- m	Wth- m	L.S.	Sig.	ULE yrs	Struct	Roots	Cpy	Ret Value	K Ret	Notes
																Planning Application: T210451 Date Prepared: 10 April 2026 This copied document is made available for the purpose of the planning process as set out in the Planning and Environment Act 1987. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination or distribution of the document is at your own risk.
59	Dead	370														Large & fine deadwood, allelopathic effect from #57.
60	Dead	390														Fallen
61	<i>Eucalyptus macrorhyncha</i>	53	17	2.0	1.8	14	N-S 5 E-W 6	Mat	High	7+	2	3	2	Low	R	Large & fine deadwood, asymmetrical bifurcation, S co-dependant dead, was bifurcated at base – scar W side, insect damage.
62	Dead	157													R	
63	<i>Acacia dealbata</i>	85	27	3.2	2.5	20	N-S 7 E-W 6	Sen	High	<5	1	3	3	Low	R	Bifurcated from base, N co-dependant dead, S co-dependant leaning S, broken limbs, borer in trunk, large & fine deadwood.
64	<i>Eucalyptus macrorhyncha</i>	45	14	2.0	1.6	11	N-S 3 E-W 6	Mat +	High	5+	2	3	2	Low	R	Symmetrical bifurcation up high, bent top W, large & fine deadwood, all canopy is epicormics, peripheral dieback.
65	<i>Eucalyptus macrorhyncha</i>	95	30	3.6	2.1	26	N-S 8 E-W 12	Mat	High	10+	3	3	3	Low	Ret	Low LCR, large & fine deadwood, trunk rubbing, allelopathic effect from #K, phototropic from others, overextended W,

ADVERTISED MATERIAL

No.	Species	C cm	DBH/ DSH cm	TPZ/ NRZ m	SRZ m	Hgt- m	Wth- m	L.S.	Sig.	ULE yrs	Struct	Roots	Cpy	Ret Value	Ret	Notes
																Planning Application: T210451 Date Prepared: 10 April 2026 This copied document is made available for the purpose of the planning process as set out in the Planning and Environment Act 1987. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination or distribution of the document is on your own responsibility.
																lots of fine dead sap wood. Out of DS
141	<i>Eucalyptus radiata</i> LOT	350	111	13.3	3.7	24	N-S 16 E-W 12	Sen.	High	5+/-	1	2	1	High	Ret	Lots of large & fine dead wood, active hollows, 1-sided W, large broken limbs, mechanical damage at base. Retain as stag. Out of DS area <10% TPZ minor incursion driveway.
142	<i>Eucalyptus obliqua</i>	207	66	7.9	2.7	24	N-S 8 E-W 12	Mat +	High	5+	1	3	2	Low	Ret	Growing on ~50° lean E, bend in top, lots of large & fine deadwood, many epicormics, broken limbs, poor taper, defect intrunk SW side – scar on angled trunk – water into trunk - rot.
143	<i>Eucalyptus sieberi</i> VLOT	468	149	15.0	4.1	32	N-S 28 E-W 20	Mat +	High	7+	2	3	3	High	R	Large hollowing scar at base W side, repeated symmetrical bifurcation with lots of included bark, large & fine deadwood, lost lots of limbs, broken large limbs, existing carport in SRZ, boundary fence within TPZ, not suitable as a SA.
144	<i>Eucalyptus radiata</i>	75	24	2.9	2.0	20	N-S 10	Mat	High	15+	3	3	3	Mod	Ret	Fence within TPZ, large & fine deadwood,

ADVERTISED MATERIAL

No.	Species	C cm	DBH/ DSH cm	TPZ/ NRZ m	SRZ m	Hgt- m	Wth- m	L.S.	Sig.	ULE yrs	Struct	Roots	Cpy	Ret Value	Ret	Notes	
							E-W 10										Planning Application: T210451 Date Prepared: 10 April 2026 This copied document is made available for the purpose of the planning process as set out in the Planning and Environment Act 1987. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination or distribution of the document is at your own risk.
145	<i>Eucalyptus obliqua</i> LOT	283	90	10.8	3.4	26	N-S 14 E-W 18	Mat	High	7+	2	3	3	High	Ret		NDN. Repeated bifurcation, had a N-S bifurcation – S co-dependant broken off, burnt outer bark, mature & young epicormics – including up trunk, lots of large & fine deadwood, apical dieback on E co-dependant, peripheral dieback of upper canopy, growing right on boundary fence – SRZ, bulges in trunk, starting to retrench.
146	<i>Eucalyptus obliqua</i> LOT	298	95	11.4	3.5	30	N-S 18 E-W 21	Mat	High	15+	4	3	4	High	Ret		NDN. Large & fine deadwood, fence within TPZ, bends in trunk, mature & young epicormics up trunk.

Legend:

<p>DBH/DSH= Diameter at Breast (Standard) Height, in centimetres, L.O.T.= Large Old Tree, 90cm in EVC 29 TPZ/NRZ = Tree Protection Zone/Nominal Root Zone SRZ = Structural Root Zone SR = Structural Roots Hgt = Height, measured in metres Wth = Width, measured in metres L.S. = Life stage: Young, Mat = Mature, Sen = Senescing Sig. = Significance, assessed as high, moderate or low ULE = Useful Life Expectancy, estimated in years Struct. = Structure, scored out of 5</p>	<p>Roots = root environment health, scored out of 5 Cpy = Canopy health, scored out of 5 Ret Value = Retention Value R/Ret = tree proposed to be R=Removed/Ret=Retained NGL = Natural Ground Level RZ = Root Zone ND = Next Door property TOB = Top of Bank DS = Defendable Space CS = Canopy Separation SA = Stand Alone specimen LCR = Low Crown Ratio</p>
--	--


Cardinia

ADVERTISED MATERIAL

Planning Application: T210451
Date Prepared: 10 April 2026

This copied document is made available for the purpose of the planning process as set out in the *Planning and Environment Act 1987*. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.

Pictorial Assessment



ADVERTISED MATERIAL

Planning Application: T210451

Date Prepared: 10 April 2026

This document is made available for the purpose of the planning process as set out in the Planning and Environment Act 1987. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.

House Site & defensible space trees 2024



Tree A root zone



Tree A canopy



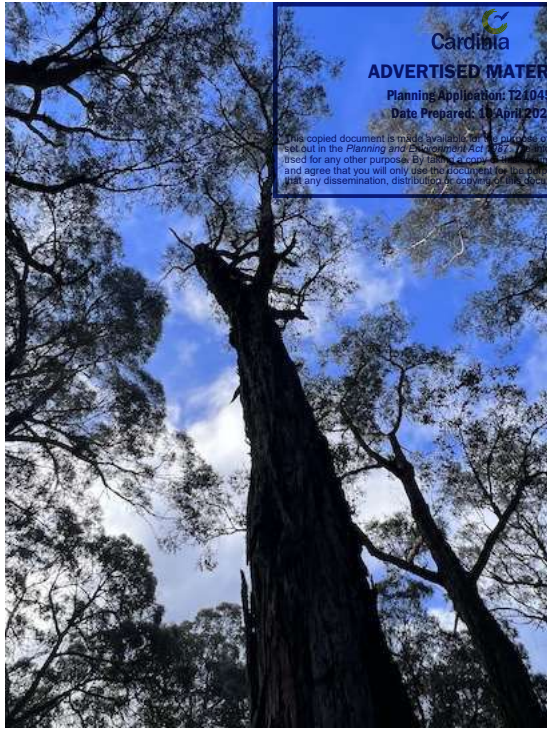
Tree B root zone



Tree B canopy



Tree C root zone



Tree C canopy


ADVERTISED MATERIAL
 Planning Application: T210451
 Date Prepared: 11 April 2026
This copied document is made available for the purpose of the planning process as set out in the Planning and Environment Act 1987. This information must not be used for any other purpose. By using this copied document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.



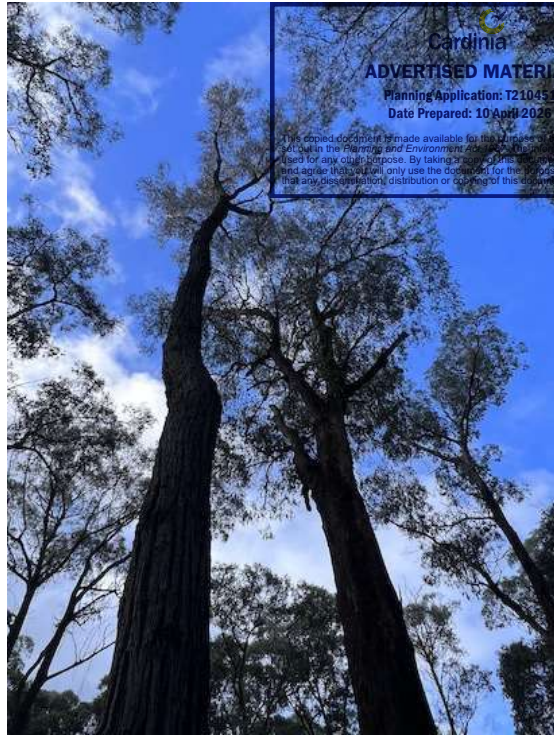
Tree D root zone



Tree D canopy



Tree E & F root zone



Tree E & F canopy


ADVERTISED MATERIAL
 Planning Application: T210451
 Date Prepared: 10 April 2025
This copied document is made available for the purposes of the planning process as set out in the Planning and Environment Act 2015. This information must not be used for any other purpose. By taking any action in reliance on the information you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.



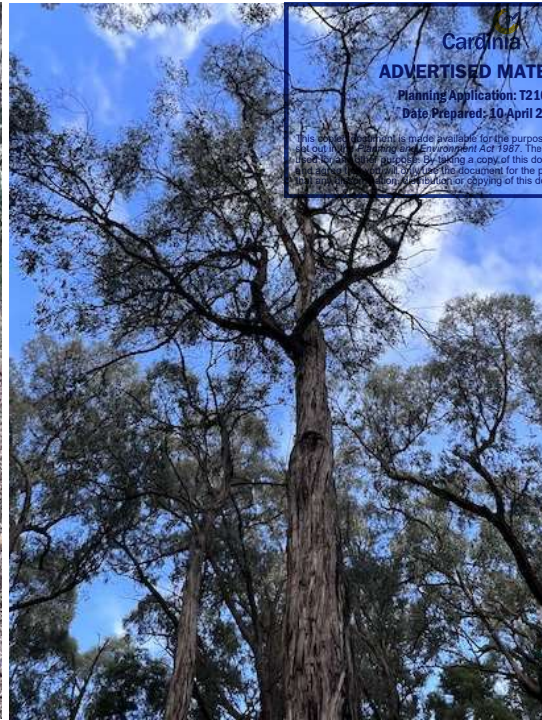
Tree G root zone



Tree G canopy



Tree H root zone




ADVERTISED MATERIAL
 Planning Application: T210451
 Date Prepared: 10 April 2026
This document is made available for the purpose of the planning process as set out in the Planning and Environment Act 1967. The information must not be used for any other purpose. By using a copy of this document you acknowledge and warrant that you will only use the document for the purpose specified above and that you will not disseminate, reproduce or copy of this document is strictly prohibited.

Tree H canopy



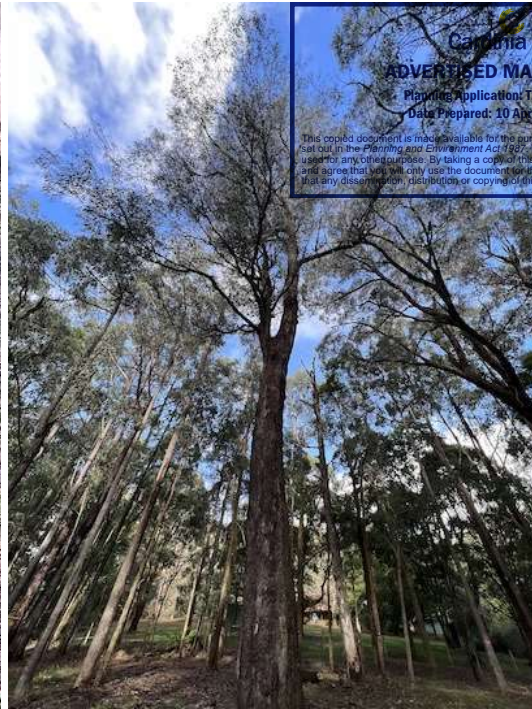
Tree I root zone



Tree I canopy



Tree J root zone



Tree J canopy

Campania
ADVERTISED MATERIAL
 Planning Application 1210451
 Data Prepared: 10 April 2026

This copied document is made available for the purpose of the planning process as set out in the Planning and Environment Act 1997. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution, or copying of this document is strictly prohibited.



Tree K root zone



Tree K canopy



Tree L root zone



Tree L canopy



Tree M root zone



Tree M canopy

Cardinal
ADVERTISED MATERIAL
Planning Application: T210451
Date Prepared: 10 April 2026
This board document is made available for the purpose of the planning process as required by the Planning and Environment Act 1987. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will not use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.



Tree N root zone



Tree N canopy

Carolina
ADVERTISED MATERIAL
 Planning Application: T210451
 Date Prepared: 10 April 2026

This copied document is made available for the purpose of the planning process as set out in the Planning and Environment Act 2009. The information must not be used for any other purpose. If you copy or use this document you acknowledge and agree that you will use the document for the purpose specified above and that any dissemination, reproduction or copying of this document is strictly prohibited.



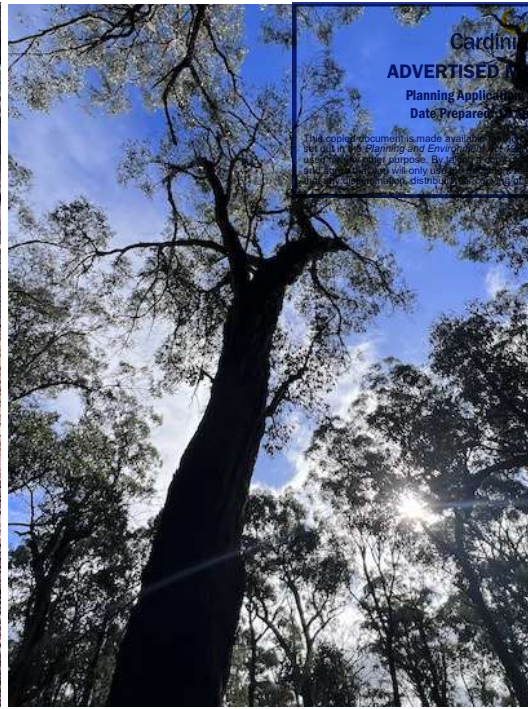
Tree O root zone



Tree O canopy



Tree P root zone



Tree P canopy



Tree Q root zone

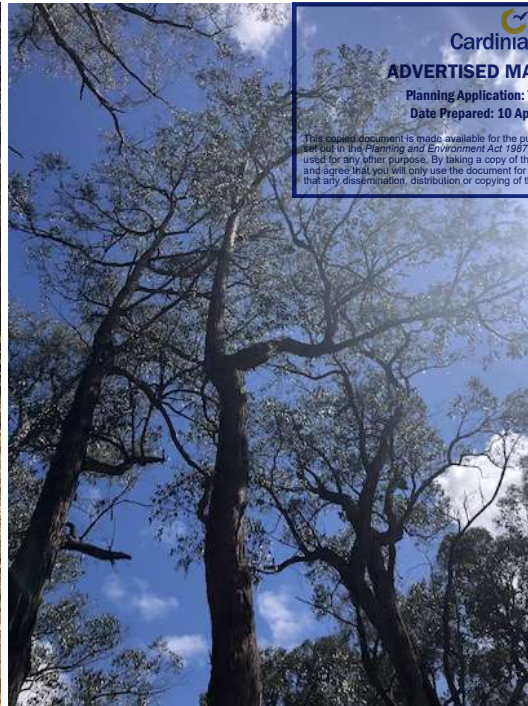


Tree Q canopy

Carolina
ADVERTISED MATERIAL
Planning Application 210451
Date Prepared: 11/2026
The copied document is made available for public review as part of the planning process as set out in the Planning and Environmental Review Act 2016. The information must not be used for any other purpose. By using this document you acknowledge and agree that it will only be used for the purpose specified above and that any reuse, reproduction, distribution or publication of this document is strictly prohibited.



Tree R root zone



Tree R canopy


ADVERTISED MATERIAL
Planning Application: T210451
Date Prepared: 10 April 2026

This copied document is made available for the purpose of the planning process as per set out in the Planning and Environment Act 1987. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.



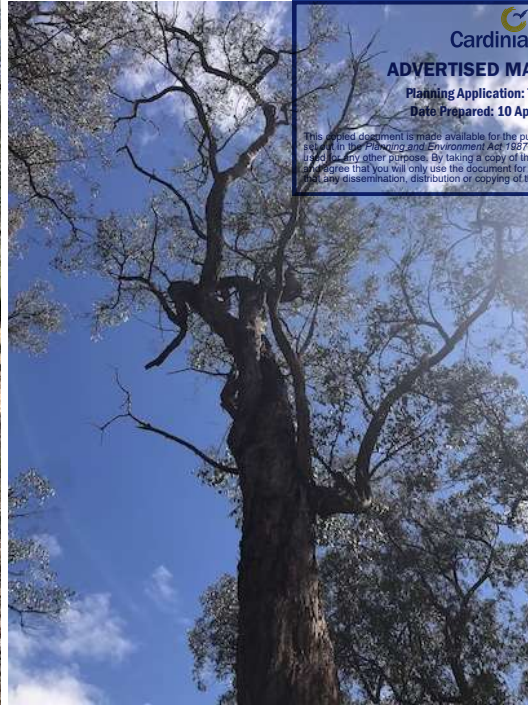
Tree S root zone



Tree S canopy



Tree T root zone



Tree T canopy

Cardinia
ADVERTISED MATERIAL
 Planning Application: T210451
 Date Prepared: 10 April 2026

This advertised document is made available for the purpose of the planning process as required in the Planning and Environment Act 1987. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.



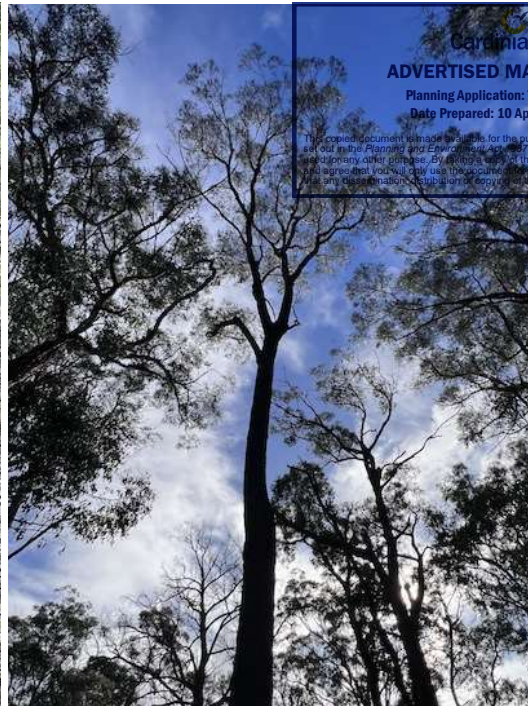
Tree U root zone



Tree U canopy



Tree V root zone



Carolina
ADVERTISED MATERIAL
Planning Application: T210451
Date Prepared: 10 April 2026
This copied document is made available for the purpose of the planning process as set out in the Planning and Environment Act 2007. The information must not be used for any other purpose. By using this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.

Tree V canopy



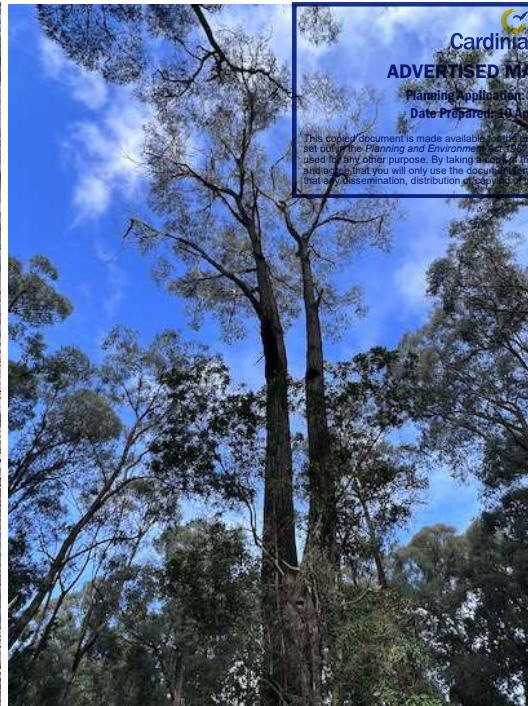
Tree W root zone



Tree W canopy



Tree X root zone




ADVERTISED MATERIAL
 Planning Application: T210451
 Date Prepared: 19 April 2026
This copied document is made available for the purpose of the planning process as set out in the Planning and Environment Act 2015. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.

Tree X canopy



Tree Y & Z root zone



Tree Y & Z canopy

Trees within the defendable space 32m - numbered



Tree 1 root zone



Tree 1 canopy



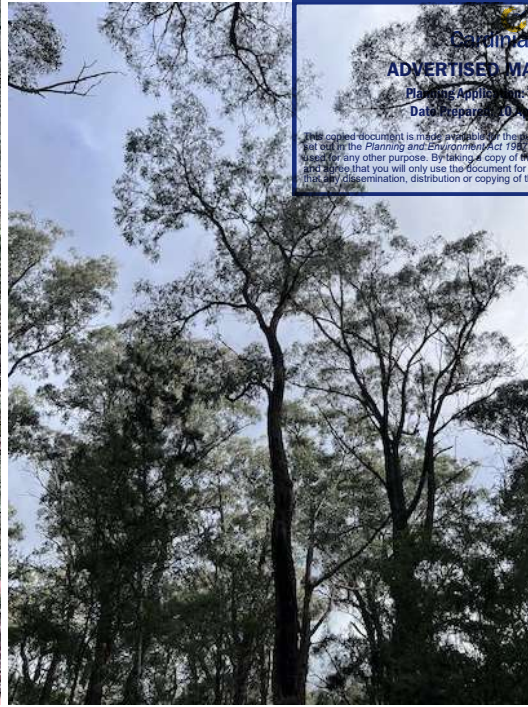
Tree 2 root zone



Tree 2 canopy



Tree 3 root zone



Carroll County
ADVERTISED MATERIAL
Planning Article 101-210451
Data Expiration: 01/01/2026
This copied document is made available for the purpose of the planning process as set out in the Planning and Environment Act 1990. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.

Tree 3 canopy



Tree 4 root zone



Tree 4 canopy



Tree 4A root zone



Tree 4A canopy


ADVERTISED MATERIAL
Planning Application: T210451
Date Prepared: 10 April 2026

This document is made available for the purpose of the planning process as part of the Planning and Environment Act 1987. The information must not be used for any other purpose. By viewing this document you acknowledge and agree that you will not use the information for any other purpose specified above and any dissemination or publication of this document is strictly prohibited.



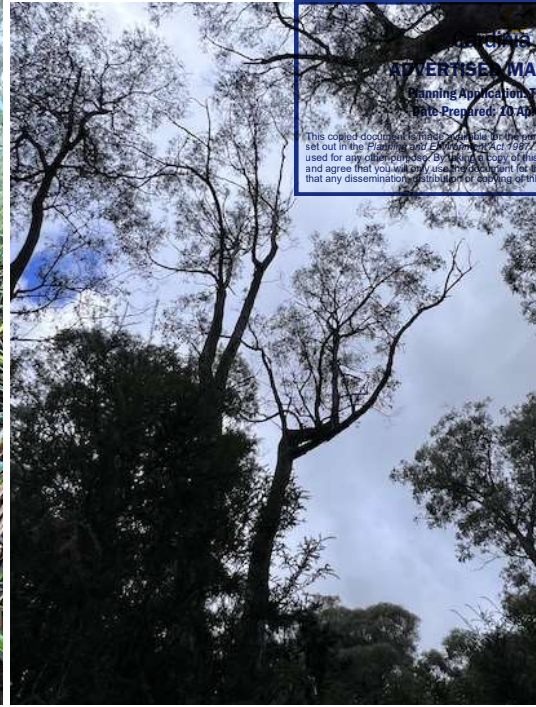
Tree 5 root zone



Tree 5 canopy



Tree 6 root zone



Tree 6 canopy

ADVERTISE MATERIAL
Planning Application P210451
Date Prepared: 20 April 2026
This copied document is made available for the purpose of the planning process as set out in the Planning and Environment Act 1997. The information must not be used for any other purpose. By clicking on this document you acknowledge and agree that you will only use this document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.



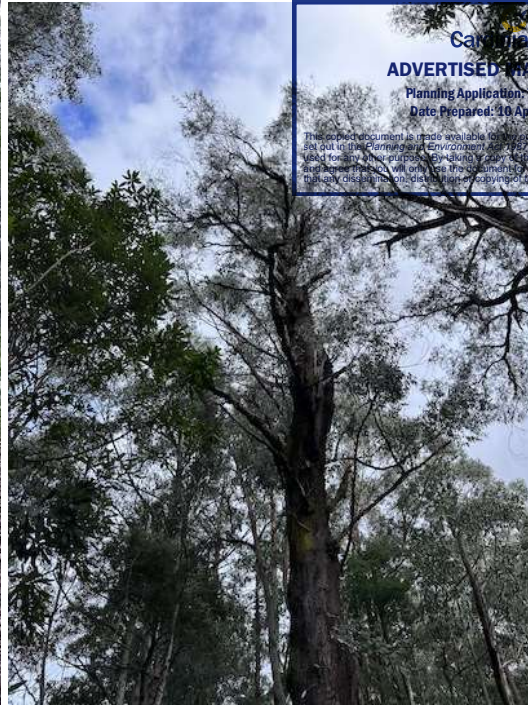
Tree 8 root zone



Tree 8 canopy



Tree 9 root zone



Canberra
ADVERTISED MATERIAL
Planning Application: P210451
Date Prepared: 10 April 2026
This document is made available for the purpose of the planning process as set out in the Planning and Environment Act 2007. The information must not be used for any other purpose. In using this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.

Tree 9 canopy



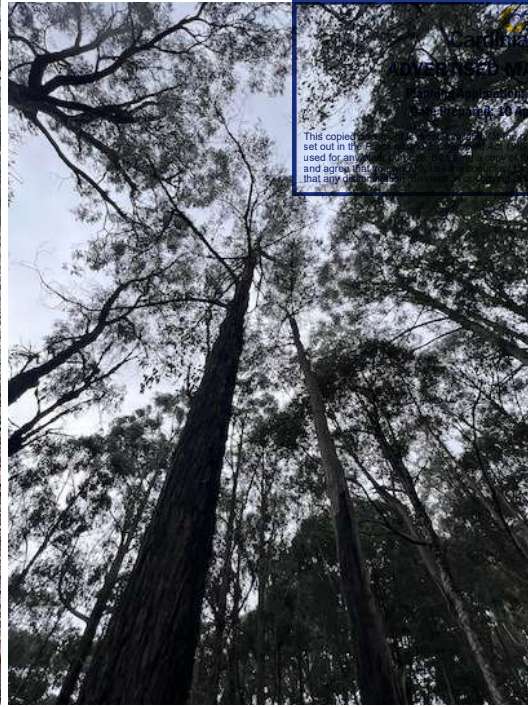
Tree 10 root zone



Tree 10 canopy



Tree 11& 12 root zone



Tree 11 & 12 canopy

MATERIAL
210451
11/2026
This copied information is for informational purposes only. It is not intended to be used for any other purpose. The user acknowledges and agrees that the information is for informational purposes only and that any other use of this information is strictly prohibited.



Tree 30 root zone



Tree 30 canopy



Tree 38 root zone



Tree 38 canopy

UNPUBLISHED MATERIAL
 Planning Application 210451
 Draft Environmental Assessment
 2026

This confidential document is prepared for the purpose of the planning process as set out in the Terms of Reference. The information must not be used for any other purpose. If you are not a party to this document you acknowledge and warrant that you have not disseminated the information for the purpose specified above and that you will not do so. Any other use of this document is strictly prohibited.



Tree 39 root zone



Tree 39 canopy



Tree 40 root zone



Tree 40 canopy

Cardinia
ADVERTISED MATERIAL
Planning Application: T210451
Date Prepared: 10 April 2026

This document is made available for the purpose of the planning process as set out in the Planning and Environment Act 1997. The information must not be used for any other purpose. By taking copies of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.



Tree 41 root zone



Tree 41 canopy



Tree 42 root zone



Tree 42 canopy



Tree 43 root zone



Tree 43 canopy

DISCLAIMER
This document is for informational purposes only and is not intended to be used for any other purpose. The information contained herein is the property of the City of Brisbane and is not to be distributed, copied, or otherwise used without the express written permission of the City of Brisbane. The City of Brisbane does not warrant the accuracy, completeness, or reliability of the information contained herein. The City of Brisbane is not responsible for any errors or omissions in this document. The use of this document is strictly prohibited.



Tree 44 & 45 root zone

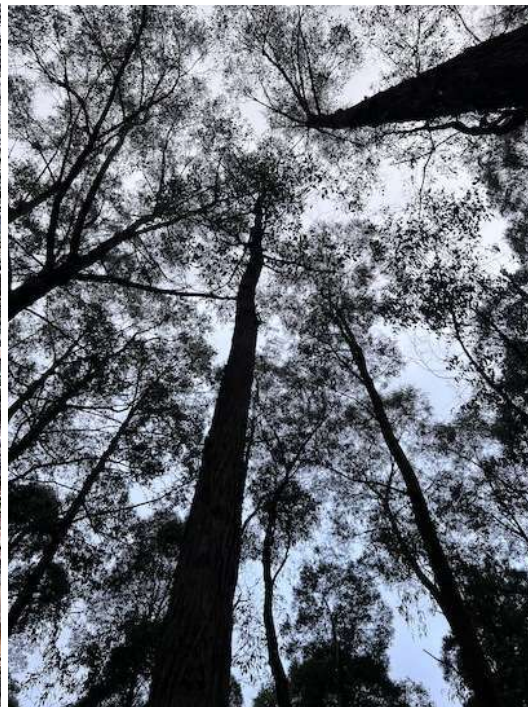


Tree 44 & 45 canopy


ADVERTISED MATERIAL
 Planning Application: T210451
 Date Prepared: 10 April 2026
This document is made available for the purpose of the planning process as part of the Planning and Environment Act 2015. The information must not be used for any other purpose. If you use this document you acknowledge that you will be responsible for the purpose specified above and any dissemination, distribution or copying of this document is strictly prohibited.



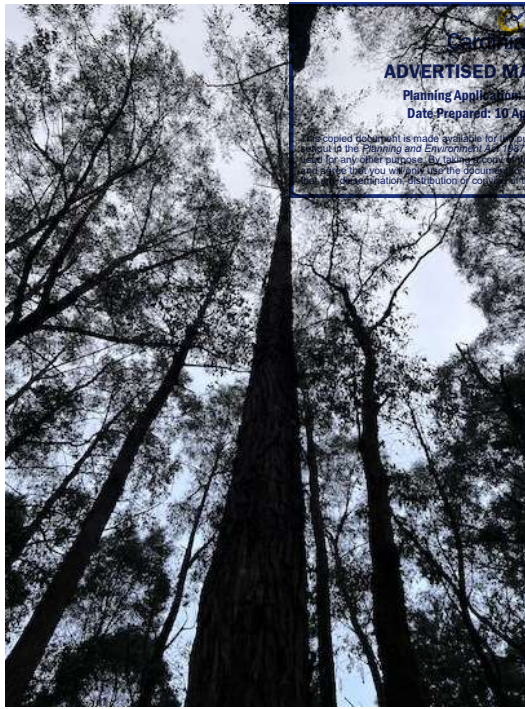
Tree 54 root zone



Tree 54 canopy



Tree 55 root zone



Tree 55 canopy

ADVERTISED MATERIAL
 Planning Application: 2210451
 Date Prepared: 10 April 2026

This document is made available for the purpose of the planning process as required by the Planning and Environment Act 2017. The information must not be used for any other purpose. By publishing this document you acknowledge and warrant that you warrant that the information is for the purpose specified above and that the dissemination, distribution or copying of this document is strictly prohibited.



Tree 56 root zone



Tree 56 canopy



Tree 57 root zone



Tree 57 canopy



Tree 58 root zone



Tree 58 canopy

Trees 59 & 60 were upstanding dead stumps which have since fallen as logs



Tree 61 root zone



Tree 61 canopy

ADVERTISED MATERIAL
 Planning Application 210451
 Date prepared: 15 April 2026

This advertisement is available for the purpose of the planning process as set out in the Planning and Environment Act 2009. The information must not be used for any other purpose. If you are a copy of this document you acknowledge and agree that you will not use the information for the purpose specified above and that any dissemination or publication of this document is strictly prohibited.



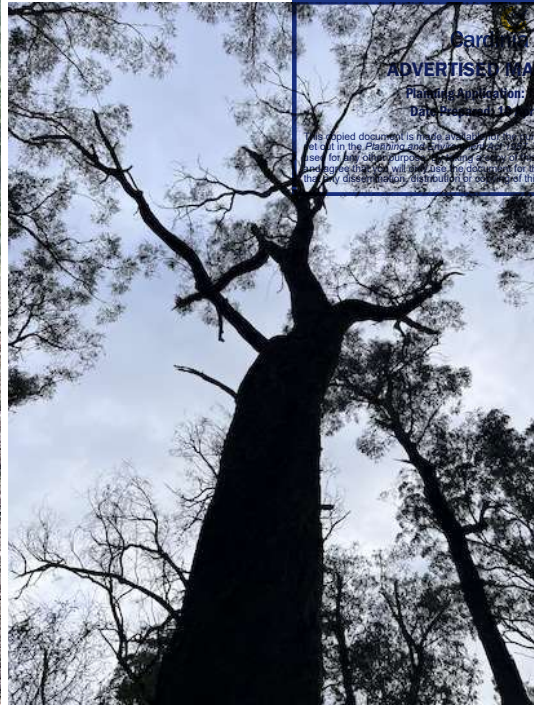
Tree 61-64 & 65 root zones



Tree 61 canopy



Tree 141 root zone



Tree 141 canopy



Tree 142 root zone



Tree 142 canopy

Barclay
ADVERTISED MATERIAL
Planning Application: 210451
Date Received: 11 April 2026
This copied document is made available for the purpose of the planning process as set out in the Planning and Environment Act 2016. The information must not be used for any other purpose. If you are not the intended recipient of this document you acknowledge and agree that you will not use the document for the purpose specified above and that any dissemination or distribution of copies of this document is strictly prohibited.



Tree 143 root zone



Tree 143 canopy

Cardina
ADVERTISED MATERIAL
 Planning Application 210451
 Date Prepared: 17 April 2026

This document is made available for the purpose of the planning process as part of the Planning and Environment Act 2007. The information must not be used for any other purpose. You acknowledge that the information is provided for the purpose specified above and its use for any other purpose is strictly prohibited.



Tree 144 root zone



Tree 144 canopy



Tree 145 root zone



Tree 145 canopy

ADVERTISE MATERIAL
 Planning Application 210451
 Date Prepared: April 2026

This copy of the document is made available for the purpose of the planning process as part of the Planning and Environment Act 2015. It is to be used for the purpose specified above and any dissemination of the information contained in this document is strictly prohibited.



Tree 146 root zone



Tree 146 canopy



Existing driveway access facing east


Cardinia
ADVERTISED MATERIAL
Planning Application: T210451
Date Prepared: 10 April 2026

This copied document is made available for the purpose of the planning process as set out in the *Planning and Environment Act 1967*. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.



Facing north from house site.



Facing east from house site



Facing south from house site.



Facing west from house site



Facing east and south to house site

.....

Offset Very Large and Large Old Trees located onsite to the west beyond the defendable space within potential conservation area


ADVERTISED MATERIAL
Planning Application: T210451
Date Prepared: 10 April 2026

This copied document is made available for the purpose of the planning process as set out in the Planning and Environment Act 1967. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.



Tree O1 root zone



Tree O1 canopy

Cardinalia
ADVISED MATERIAL
Planning Application 2210451
Date Prepared: April 2026

This document is prepared for the purpose of the planning process as advised in the Planning and Environment Act 2015. The information must not be used for any other purpose. Any use of this document you acknowledge may be solely for the purpose specified above and any other use of this document is strictly prohibited.



Tree O2 root zone



Tree O2 canopy



Tree O3 root zone



Tree O3 canopy

Carolina
ADVERTISED MATERIAL
 Planning Application # 210451
 Date Proposed: 04/01/2026

All documents made available on this website are for informational purposes only. The information must not be used for any other purpose. The information must not be disseminated, copied, or used for any other purpose specified above and any dissemination, copying, or reuse of this document is strictly prohibited.



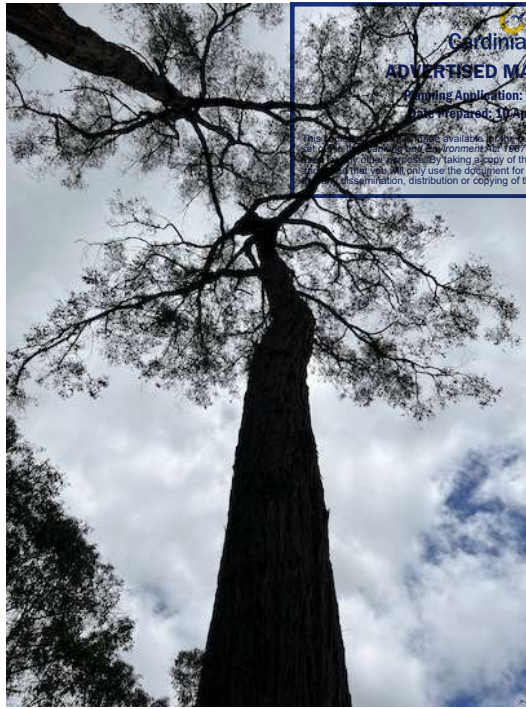
Tree O4 root zone



Tree O4 canopy



Tree O5 root zone



Tree O5 canopy



Tree O6 root zone



Tree O6 canopy



Tree O7 root zone



Tree O7 canopy

Cardinia
ADVERTISED MATERIAL
 Planning Application: T210451
 Date Prepared: 10 April 2026

This document is made available for the purpose of the planning process as required by the Planning and Environment Act 1987. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.

Potential Conservation Offset Area



Conservation Area vegetation





Conservation Area vegetation



Cardinia
ADVERTISED MATERIAL
Planning Application 210451
Date Proposed: 30 April 2026

The scope, content and accuracy of this information is for the purpose of the planning process as advised by the Planning and Environment Department. The information must not be used for any other purpose. By using this document you acknowledge and accept that you are relying on the information for the purpose specified above and that any dissemination, reproduction or use of this document is strictly prohibited.



Conservation Area vegetation






Cardinia
ADVERTISED MATERIAL
 Planning Application: T210451
 Date Prepared: 10 April 2026

This copied document is made available for the purpose of the planning process as set out in the Planning and Environment Act 1987. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.

Proposed offset conservation area looking west

Recommendations & Conclusions 4.0

While this proposal will see the loss of trees, including L.O.T.’s (Large Old Trees) there is capacity onsite to achieve a net gain in a dedicated Conservation Area that will include the protection of at least 6 L.O.T.’s and 1 V.L.O.T (minimum total of 7 Large and Very Large Old Trees), as well as the high quality biodiverse understorey along the riparian area of Shepherds Creek which runs through the rear (west) of the property. This conservation area is of high value and likely to be habitat for endangered species such as the Lowland Leadbeater’s Possum, Greater Glider and Helmeted Honeyeater.

This development has been altered significantly from initial proposals in 2021, 2023, 2024 and 2025 to reduce the number of trees lost – refer Appendices for minimisation process.

Trees proposed for removal

All trees proposed for removal are detailed below with additional justification. Most trees required removal for defensible space criteria, however some were located on the house footprint designated by the DS setbacks, and associated earthworks (cut/fill) together with the driveway and Personal Bushfire Shelter and then shed location and effluent field have been proposed in areas where tree clearing was necessary for defensible space anyway or existing clearings. Every effort has been made to retain as many Large and Very Large trees as well as those which are suitable structurally to retain as stand-alone trees within the defensible space.


Trees proposed for removal with additional justification.

No.	Dwelling Footprint	Effluent Field	DS	D’way	Shed	PBS	Additional justification
C			✓	✓		✓	Deadwood, broken co-dependant, >50% epicormics, broken limbs.
D	✓		✓	✓		✓	Remove to retain B-within fall strike of PBS

No.	Dwelling Footprint	Effluent Field	DS	D'way	Shed	PBS	Additional justification
E	✓		✓			✓	Deadwood, epicormics, exposed & damaged SR, dieback from tips
F	✓		✓			✓	Deadwood, epicormics, exposed & damaged SR.
G	✓		✓			✓	Broken limbs, deadwood, lots of epicormics, bent top.
H		✓	✓				Deadwood, epicormics, insect damage.
I		✓	✓				Odd shape, bent top, deadwood, epicormics, insect damage.
J		✓	✓				Epicormics, deadwood, exposed SR, insect damage.
K			✓				Slight lean E, majority of canopy to the S, lots of broken limbs, large & fine deadwood, exposed & damaged SR.
L			✓				Deadwood, epicormics, to retain.
M			✓				Lots of large & fine deadwood, mature & young epicormics, top bent W, large fire scar/ hollowing from base, senescing. <i>Now on edge of DS, however not likely to survive proposed new conditions & would act as a connection to trees beyond DS</i>
N			✓				Dead co-dependant, lost limbs, deadwood, epicormics.
O			✓				Deadwood, epicormics, bent trunk, possible fungal infestation – trunk thickening, insect damage.
P			✓				Dead co-dependant, mature epicormics, scarring on trunk, deadwood, insect damage
X			✓	✓		✓	Within fall strike of PBS
Y	✓		✓				Bent trunk, epicormics, deadwood, galls, thinning canopy.
Z	✓		✓				Bent trunk, epicormics, deadwood.

ADVERTISED MATERIAL
 Cardinia
 Planning Application: 2210451
 Date Received: 01 April 2026
 This copied document is made available for the purpose of the planning process as required by the Information Privacy Act 1987. The information must not be used for any other purpose. Making a copy of this document you acknowledge and agree that you will not use the document for the purposes specified above and that any dissemination, distribution or copying of this document is strictly prohibited.

No.	Dwelling Footprint	Effluent Field	DS	D'way	Shed	PBS	Additional justification
2			✓			✓	To retain #1 & PBS
3			✓			✓	Within fall strike PBS
4			✓				To retain #1 & 5
4A							To retain #1 & 5
6			✓				To retain # 5 & 10
9			✓				To retain #10
11			✓				To retain #10
12			✓				To retain #10
39			✓				To retain #10
40			✓				To retain #10
41			✓				To retain #10
42			✓				To retain #10
43			✓				To retain #10
44			✓				To retain #56
45			✓				To retain #56
54			✓				To retain #56
55			✓				To retain #56
57		✓	✓				To retain #56
58		✓	✓				To retain #10 & 56
61			✓				To retain #56
62			✓				To retain #56
63			✓				To retain #56
64			✓				To retain #56
143			✓			✓	Senescing V.L.O.T. Many health defects mean this tree is not structurally sound to be retained with reference to the proposed development.


ADVERTISED MATERIAL
 Planning Application: T210451
 Date Proposed: 10 April 2026
This copied document is made available for the purpose of the planning process as set out in the Planning and Environment Act 1987. The information must not be used for any other purpose. If you are taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.

Trees proposed for retention with NEW <10% TPZ (NRZ) encroachment -Minor Onsite

Tree A is a Narrow-leaf Peppermint (*Eucalyptus radiata*) which will have <10% incursion into the TPZ from the driveway extension. Works will be at or above grade, and will result in a minor encroachment, this is deemed acceptable under ASA4970. This tree will also require a structural prune and monitoring into the future.

Tree Q is a Narrow-leaf Peppermint (*Eucalyptus radiata* LOT) which will have <10% incursion into the TPZ from the shed earthworks. Works will result in a minor encroachment; this is deemed acceptable under ASA4970. This tree will also require a structural prune and monitoring into the future.

Tree T is a Messmate (*Eucalyptus obliqua* VLOT) which will have <10% incursion into the TPZ from the driveway extension. Works will be at or above grade, and will result in a minor encroachment, this is deemed acceptable under ASA4970. This tree will also require a structural prune and monitoring into the future.

Tree U is a Messmate (*Eucalyptus obliqua*) which will have <10% incursion into the TPZ from the driveway extension. Works will be at or above grade, and will result

in a minor encroachment, this is deemed acceptable under ASA4970. This tree will also require a structural prune and monitoring into the future.

Cardinia
ADVERTISED MATERIAL
Planning Application: T210451
Date Proposed: 10 April 2026
This copied document is made available for the purpose of the planning process as part of the Planning and Environment Act 2015. This information must not be used for any other purpose. You acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.

Tree V is a large Silver-top Ash (*Eucalyptus sieberi* LOT) which is proposed for retention with a less than 10% incursion into the TPZ from the driveway extension. Works are proposed to be at or above grade, and result in a minor encroachment which is deemed acceptable under ASA4970. This tree will require some pruning for dead-wooding and structural improvement to prolong the ULE and integrity.

Tree W, a Narrow-leaf Peppermint (*Eucalyptus radiata*) will have <10% incursion into the TPZ from the driveway extension, which for the most part is existing at or above NGL. This is deemed acceptable under ASA4970. This tree will also require a structural prune and monitoring into the future.

Tree 1 is a large Narrow-leaf Peppermint (*E. radiata* LOT) which is proposed for retention with a less than 10% incursion into its TPZ from the driveway, again much of which is existing. This is deemed acceptable under AS4970. This tree will also require some dead-wooding and structural pruning to ensure its safe retention once other adjacent permitted trees have been removed, as well as an improved root area as there are currently exposed structural roots for which the damage needs to be ameliorated. Works are proposed at or above grade.

Tree 141 is a large Narrow-leaf Peppermint (*E. radiata* LOT) which is proposed for retention with a less than 10% incursion into its TPZ from the proposed driveway extension. This is deemed acceptable under AS4970. This tree will also require some dead-wooding and structural retrenchment pruning to ensure its safe retention once other adjacent permitted trees have been removed. *Oct '25 this tree is now virtually dead – pers comm. owners, to be pruned for habitat.*

Retained trees with no proposed TPZ encroachment

Trees B, R, S, 5,10, 56,142 & 144 are located on the subject property within 15m of NEW works and will have no TPZ encroachment from these proposed works. This is deemed acceptable under AS4970. These trees must be protected during the proposed development.

Retained trees On neighbouring properties

Tree 145 is a Messmate (*E. obliqua* LOT) which is located on the neighbouring property to the north, it will no TPZ incursion from the proposed works on the subject property. This is deemed acceptable under AS4970.

Tree 146 is a Messmate (*E.obliqua* LOT) which is located on the neighbouring property to the north, it will have less than 10% TPZ incursion from the proposed watertank. This is deemed acceptable under AS4970.

Defendable Space Management

Trees proposed for retention with pruning <1/3 existing canopy

All trees proposed for retention will require some pruning to ensure their continued health and structural integrity. Dead-wooding, structural correction and weight reduction may be necessary to assist in the modification of canopy trees to meet the CFA defendable space criteria of stand-alone trees and also to meet the 5m canopy separation requirements. All trees will also require monitoring into the future for

any imbalances or broken limbs which may occur due to changes aerial weather and wind patterns.

Cardinia
ADVERTISED MATERIAL
Planning Application: T210451
Date Prepared: 10 April 2026
This copied document is made available for the purpose of the planning process as set out in the Planning and Environment Act 1987. The information must not be used for any other purpose. Any use of this document you acknowledge and agree that you will only use the document for the purpose specified above and all any reproduction, distribution or copying of this document is strictly prohibited.

In particular, the following trees will need immediate pruning to achieve the 5m canopy separation – A & B; and the following trees will require ongoing future pruning to maintain canopy separation- A, B, V, W, 1, 3, 5, 10 & 142.

Trees to be retained as Stand-Alone specimens within the Defendable space

Trees to be monitored and maintained are; A, B, V, W, 1, 5, 10, 56, 142 & 144.

Avoid, minimize & offset

Vegetation removal could not be avoided on this site, due to the defendable space area and vegetation management requirements. However, the following strategies have been implemented to minimize vegetation removal and reduce the number of trees requiring removal to accommodate for the development proposal. Vegetation proposed for removal will be offset onsite in a potential conservation area (0.587 Ha to the west = 0.121 GHU minimum) – refer Appendices for preliminary Net gain report and any deficit will have to be purchased as a third-party offset credit OTC.

This application was originally submitted to Council by the owners in July 2021 (*application #T210451*) with a 12.5 BAL (Bushfire Attack Level) design at that time encompassed many trees that would have required removal (140/170 trees) in a 75m DS. The dwelling design was altered and moved from 60m setback from the front boundary to 32m, a BMP (Bushfire Management Plan) was developed with a 32m DS with a +25m modified DS area for an increased BAL 29 dwelling. In the submitted report in December 2021, 113 trees were earmarked for removal (including 6 L.O.T.'s & 1 V.L.O.T.) and 63 trees retained. The next proposal re-orientated the house, removed the garage and reduced the shed size and this sees 129 retained and 42 (41 live trees, 1 dead) removed (5 L.O.T.'s - different individual trees & 2 V.L.O.T.s).

The 2024 proposal further reduced the dwelling footprint, relocated the shed, extended the driveway, reduced earthworks, increased the BAL construction of the dwelling to BAL40, installed a Personal Bushfire shelter and reduced the defendable spaces area but increased the compliance of this 32m or to property boundary perimeter.

This current proposal has further reduced the dwelling footprint and oriented it to be parallel to the north boundary, still the closest pint to the east boundary is 32m, the defendable space area is now 32m (N, E, S) & 39m (W).

Summary Tree LOSS:

2022: A, C, D, F, P, Y & 143 (LOTS/VLOTS) =7 LOTS and 113 trees

2023: C, F, K, M, P, Y & 143 (LOTS/VLOTS) =7 LOTS and 42 trees

2024: C, D, F, K, M, P, X, Y & 143 (LOTS/VLOTS) =9 LOTS and 37 trees

2025: C, D, F, K, M, P, X, Y & 143 (LOTS/VLOTS) =9 LOTS and 32 trees

Trees #8, 30, 38 & 65 are no longer within the DS, however, #s 142 & 144 are, however these can be retained as stand-alone trees.

Cardinia
ADVERTISED MATERIAL
Planning Application: T210451
Date Prepared: 10 April 2026

This copied document is made available for the purpose of the planning process as set out in the Planning and Environment Act 1987. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any distribution, disclosure or copying of this document is strictly prohibited.

Site challenges

- the Large Old trees located equidistant from one another and had large spreading canopies and large TPZ's. As many were in the West area of the block, these were avoided by moving the dwelling forward to its current proposed location. This avoided the removal of 10 VLOT/LOTS (U, 115, 116, 117, 119, 120, 125, 126, 128, 129, 132) and an additional 3 MLOTS (118, 122 & 132). By proposing the 32 m defendable space additional LOT/VLOTS are this also meant that another 2 LOTs (Q & 141), 1 VLOT (T) & 3 MLOTS (92 & 139) could also be retained.
- the installation of the Personal Bushfire Shelter has required that Trees D, X & 3 also be removed as they will be within fall strike of the shelter. D & X are LOTs.
- the poor structure of some trees making it not possible to retain them as stand-alone trees (structurally poor or not suitable to safely retain as standalone trees) due to the BMO requirements for canopy separation.
- The location of the dwelling towards the eastern boundary and front of the property (east) to retain most VLOT/LOT's with longest ULE and best structure and best location.
- Development proposal for dwelling, driveway extension and shed is completely consolidated within the DS which minimises earthworks (cut & fill) as built across the contours.
- Retaining most LOT's (onsite) and trees with longest ULE where possible and removing smaller, younger clumps of trees with poor structure in preference due to their lower habitat value.
- Pruning those with high habitat value LOT's and retaining as Stags as they senesce (141).
- Pruning trees to be retained away from their neighbours to meet defendable space criteria- not removing more than 1/3 of the canopy (A/B; 1/5/10).

NVR/Offset reports

Loss

Extent: 0.497 Ha

LOT/VLOTS proposed to be removed (9- #C, D, F, K, M, P, X, Y, 143)

GHU: 0.468 calculated on modelled condition score of 0.758

This needs to be adjusted with a Vegetation Quality Field Assessment (HabHa) undertaken which will lower the condition score and hence give a more accurate calculation of the loss.

Adjusted loss using VQFA Habitat Hectare calculation to modify condition score


Extent: 0.497

GHU: 0.271 using calculated condition score of 0.44

Gain

Extent: 0.587Ha

LOT/VLOTS proposed to be protected (7= O1, O2, O3, O4,O5,O6,O7) calculation, as probably there more LOT/VLOTS within the Conservation Area which will increase the gain available and also by surveying and accounting for trees which are 75% benchmark LOT= 67.5cm DBH.


Conservative
ADVERTISED MATERIAL
 Planning Application: T210451
 Date Prepared: 10 April 2026
This copied document is made available for the purpose of the planning process as set out in the Planning and Environment Act 1987. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.

GHU: 0.121

The deficit of 0.15 GHU will need to be purchased as an OTC vegetation credit which is available as per checks of the register. The owners are aware of the cost involved, but it would be prudent to calculate the full extent of the gain onsite and then purchase the remainder.

Offset in proposed conservation area onsite as first party offset to permanently protect 7(+) LOT/VLOTS and a remnant patch of riparian vegetation along Shepherds Creek as it passes through the far western area of the property near to the boundary. This equates to a preliminary estimate of 0.121GHU (general habitat units plus 7 LOTs minimum) with a condition score of 0.79 and extent of 0.587Ha. This is the largest area onsite which is compliant being greater than 150m from neighbouring dwellings (previously distance to the north-west was taken from a shed which has resulted in a slightly larger offset area). The original NVR report generated indicated a detailed pathway due to the removal/modification area being larger than 0.5Ha and proposing the removal of Large Trees. The current proposal has reduced this to 0.497 Ha in an Intermediate pathway, taking in to account exemptions for vegetation removal along the fencelines (2m width).

Trust for Nature have been contacted preliminarily and they are interested in the property for its conservation values. If the offset conservation area goes ahead then they would potentially covenant the site under a TfN covenant and undertake the Land Management plan to ensure the protection and correct management of the land for conservation values into the future.

Offset Trees

No.	Species	Circ. cm	DBH cm
01	<i>Eucalyptus radiata</i>	308	98
02	<i>Eucalyptus obliqua</i>	368	117
03	<i>Eucalyptus obliqua</i>	434	138
04	<i>Eucalyptus obliqua</i>	289	92
05	<i>Eucalyptus macrorhyncha</i>	283	90
06	<i>Eucalyptus macrorhyncha</i>	317	101
07	<i>Eucalyptus obliqua</i>	283	90

Defendable Space

To meet the vegetation management criteria and emergency vehicle access as specified in the BMP, Firefront Consultancies 2025 it is proposed that:

41 trees will be removed as native vegetation remnants with associated understorey (presently modified lower storey vegetation) mapped and modelled in the NVR report attached.

10 trees will be retained within the defensible space area meeting the BMO vegetation criteria.



Trees #1, 5, 10, A, B & V are to be pruned (less than 1/3 canopy) to create and maintain the canopy separation requirements of 5m and/or 2m height clearance for lower limbs.

Trees retained within the defensible space to be pruned and managed into the future to reduce the canopy size and create ongoing canopy separation.

All trees to be retained as stand-alone trees.

No tree grouping or modification to the defensible space criteria.

Understorey vegetation (existing modified and new) will need to be managed as outlined in BMP and new landscaping must comply with the defensible space criteria for vegetation management.

All pruning to remove lower limbs closer than 2m from NGL must meet AS4373 (2007) Amenity Pruning and be undertaken by a qualified Operational Arborist.

Tree Protection

All trees within 15m of new works for this development proposal, will require protection for their TPZ. The protection of trees should be covered by the erection of TPZ fencing compliant with the Australian standard for protection of trees on development sites (AS4970). Tree protection zones are marked on the site plan for reference purposes. Any topsoil gleaned from on-site works should be stockpiled for use on landscape areas out of TPZ areas (if marked) and/or greater than 15m from trees); all excavations should aim at retaining/restoring natural ground levels where appropriate and possible and be constructed as per endorsed plans.

Construction zone fencing around the development site (dwelling and shed) allowing for access for construction activities via existing driveway infrastructure will also alleviate the need for TPZ fences as most trees proposed to be retained are mostly beyond the works areas. Driveway extension to be constructed at or above grade to prevent and/or minimize root disturbance.

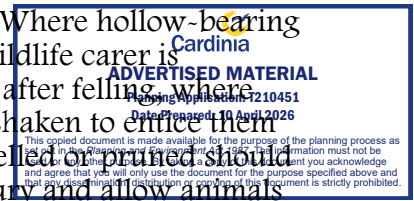
A delivery bay for building materials should be allocated clearly and no storage of materials should occur beneath trees within TPZ areas. All works (dwelling and shed) should be confined within the construction zone and all trees protected during all works.

All driveway construction must be at or above grade within TPZ area to prevent root disturbance and damage. The installation of the effluent field must not disturb the root areas of adjacent trees.

Tree Pruning, Removal & Professional Works

All pruning must meet AS4373 (2007) Amenity Pruning and be undertaken by a qualified Operational Arborist. Pruning should target dead wood removal and improve structure and ULE. Lower limbs will also require removal to meet the 2m from NGL as required in the BMP. All trees assessed will require some dead wood removal, and structural pruning to improve shape and balance, enhance their vigour and improve the useful life into the future. All permitted tree removal

should be undertaken by a professional operational arborist. Where hollow-bearing trees must be removed or pruned it is recommended that a Wildlife carer is available. If possible, they would inspect the trees before and after felling. Where fauna is noted as being present the tree should be sensitively shaken to entice them to move out. Trees with possible inhabitants that need to be felled or pruned should be gently placed on the ground to eliminate the chance of injury and allow animals to move away, leave in place for a day. Larger hollow bearing logs can be retained onsite to provide habitat options in the Bushland and/or Conservation Zones.



All trees must be checked for active habitat prior to removal. A qualified wildlife carer must be available on call during the tree removal phase of the project to ensure any affected wildlife especially arboreal marsupials or avi-fauna can be treated appropriately and relocated for best outcomes.

It is imperative to watch and maintain the health of all remaining trees onsite, during and post works. The integrity of the trees may be altered through this process, and some may thrive with continued maintenance, whilst others may decline, regular professional monitoring is essential.

References

5.0

Cardinia Shire Council:

<https://www.cardinia.vic.gov.au>

<https://cardinia.pozi.com/>

Costemans, Leon (1992) *Native Trees and Shrubs of South-eastern Australia*, Weldon Publishing

DELWP (Department of Environment, Land, Water and Planning) *Naturekit*.

<http://maps.biodiversity.vic.gov.au/viewer/?viewer=NatureKit>

DELWP (Department of Environment, Land, Water and Planning) *Maps and Spatial Data* <https://www.land.vic.gov.au/maps-and-spatial>

DT&P *Vicplan* <https://mapshare.vic.gov.au/vicplan/>

Macey, B. (2025) Bianca Macey Building Designer; *Site plan, detail and BMP plans*

Standards Australia. (2025) AS 4970 *Protection of Trees on Development Sites*.

Van de Paverd, S. (2025) *Bushfire Management Plan – 61 Livio Dve, Gembrook*, Firefront Consultancies.

Treetec (2014) *TPZ/SRZ Calculator*. www.treetec.net.au

Preliminary species list – conservation area initial vascular plant survey

Indigenous species

<i>Acacia dealbata</i>	Silver Wattle
<i>Acacia implexa</i>	Lightwood
<i>Acacia melanoxylon</i>	Blackwood
<i>Banksia maginata</i>	Silver Banksia
<i>Baurea rubioides</i>	Wiry Bauera
<i>Blechnum cartilagineum</i>	Gristle Fern
<i>Calochlaena dubia</i>	Common Ground-fern
<i>Clematis aristata</i>	Austral Clematis
<i>Correa lawrenciana</i>	Mountain Correa
<i>Correa reflexa</i>	Native Fuchsia
<i>Cyathea australis</i>	Rough Tree-fern
<i>Dampiera stricta</i>	Blue Dampiera
<i>Dianella revoluta</i>	Spreading Flax-lily
<i>Dicksonia antarctica</i>	Soft Tree-fern
<i>Eucalyptus macrorhyncha</i>	Red Stringybark
<i>Eucalyptus obliqua</i>	Messmate
<i>Eucalyptus radiata</i>	Narrow-leaf Peppermint
<i>Eucalyptus sieberi</i>	Silvertop Ash
<i>Gahnia radula</i>	Thatch Saw-sedge
<i>Gahnia sieberiana</i>	Red-fruit Saw-sedge
<i>Gleichenia microphylla</i>	Scrambling Coral Fern
<i>Goodenia lanata</i>	Trailing Goodenia
<i>Goodenia ovata</i>	Hop Goodenia
<i>Hakea decurrens</i>	Bushy Needlewood
<i>Lagenophora gracilis</i>	Slender Bottle-daisy
<i>Lepidosperma elatius</i>	Tall Sword-sedge
<i>Lobelia anceps</i>	Angled Lobelia
<i>Lomandra longifolia</i>	Mat Rush
<i>Melaleuca squarrosa</i>	Scented Paperbark
<i>Olearia lirata</i>	Snowy Daisy-bush
<i>Olearia phlogopappa</i>	Dusty Daisy-bush
<i>Platylobium reflexum</i>	Victorian Flat-pea
<i>Prostanthera lasianthos</i>	Coranderrk
<i>Pteridium esculentum</i>	Bracken
<i>Pultenaea gunnii</i>	Golden Bush-pea
<i>Spyridium parvifolium</i>	Dusty Miller
<i>Tetrahaena juncea</i>	Forest Wire Grass
<i>Tetratheca ciliata</i>	Pink Bells



Thysanotus tuberosus
Todea barbara
Viola hederacea
Zieria arborescens

Weed Species

Acer negundo
Anthoxanthum odoratum
Ehrharta erecta
Hypochoeris radicata
Pinus radiata
Poa annua
Rubus fruticosus

Common Fringe-lily
Austral King-fern
Native Violet
Stinkwood

Box Elder
Sweet Vernal Grass
Panic Veldt Grass
Cat's ear
Radiata Pine
Annual Grass
Blackberry



NVR REPORT – Net Loss

Native Vegetation Removal Report

NVRR ID: 311_20251117_DZ6

This report provides information to support an application to remove, destroy or lop native vegetation in accordance with the *Guidelines for the removal, destruction or lopping of native vegetation* (the Guidelines). This report is **not an assessment by DEECA** of the proposed native vegetation removal. Offset requirements have been calculated using modelled condition scores.

Report details

Date created: 17/11/2025

Local Government Area: CARDINIA SHIRE

Registered Aboriginal Party: Wurundjeri

Coordinates: 145.57439, -37.94543

Address: 61 LIVIO DRIVE GEMBROOK 3783

Regulator Notes

Removal polygons are located:

Summary of native vegetation to be removed

Assessment pathway	Intermediate Assessment Pathway		
Location category	Location 1 The native vegetation extent map indicates that this area is not typically characterised as supporting native vegetation. It does not meet the criteria to be classified as Location Category 2 or 3. The removal of less than 0.5 hectares of native vegetation in this area will not require a Species Offset.		
Total extent including past and proposed removal (ha) <i>Includes endangered EVCs (ha): 0</i>	0.497	<i>Extent of past removal (ha)</i>	<i>0</i>
		<i>Extent of proposed removal - Patches (ha)</i>	<i>0.497</i>
		<i>Extent of proposed removal - Scattered Trees (ha)</i>	<i>0.000</i>
No. Large Trees proposed to be removed	9	<i>No. Large Patch Trees</i>	<i>9</i>
		<i>No. Large Scattered Trees</i>	<i>0</i>
No. Small Scattered Trees	0		

Offset requirements if approval is granted

Any approval granted will include a condition to secure an offset, before the removal of native vegetation, that meets the following requirements:

General Offset amount ¹	0.468 General Habitat Units
Minimum strategic biodiversity value score ²	0.523
Large Trees	9
Vicinity	Melbourne Water CMA or CARDINIA SHIRE LGA

NB: values within tables in this document may not add to the totals shown above due to rounding

The availability of third-party offset credits can be checked using the Native Vegetation Credit Register (NVCR) Search Tool - <https://nvcr.delwp.vic.gov.au>



ADVERTISED MATERIAL

Planning Application: T210451
Date Prepared: 10 April 2026

This copied document is made available for the purpose of the planning process as set out in the *Planning and Environment Act 1987*. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.

1. The General Offset amount required is the sum of all General Habitat Units in Appendix 1.

2. Minimum strategic biodiversity value score is 80 per cent of the weighted average score across habitat zones where a General Offset is required.




Cardinia
ADVERTISED MATERIAL
 Planning Application: T210451
 Date Prepared: 10 April 2026

This copied document is made available for the purpose of the planning process as set out in the Planning and Environment Act 1987. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.

Application requirements

Applications to remove, destroy or lop native vegetation must include all the below information. If an appropriate response has not been provided the application is not complete.

Application Requirement 1 - Native vegetation removal information

If the native vegetation removal is mapped correctly, the information presented in this Native Vegetation Removal Report addresses Application Requirement 1.

Application Requirement 2 - Topographical and land information

This statement describes the topographical and land features in the vicinity of the proposed works, including the location and extent of any ridges, hilltops, wetlands and waterways; slopes of more than 20% gradient, low-lying areas, saline discharge areas or areas of erosion.

Topographical and Land information
 Council Property Number: 2496800500
 SPI (Standard Parcel Identifier): 1\TP100357
 Lot and Plan Number: Lot 1 TP100357
 Directory Reference: Melway 299 E8
 The ~8.1-acre property is located on Livio Drive, Gembrook, the owners have owned the property for ~5 years. It is ~250m ASL with a westerly aspect and currently consists of some cleared bushland with existing driveways and tracks, open shed structures, set amongst bushland areas to the west, leading to Shepherds Creek. This property is in a well - established area, with rural residential and small farm properties in Gembrook, the properties in the immediate area are in keeping with this modest proposal which is in keeping with the local area and streetscape. There is a mix of smaller and larger properties in the immediate surrounds, with fragmented treed areas.

Application Requirement 3 - Photographs of the native vegetation to be removed

Application Requirement 3 is not addressed in this Native Vegetation Removal Report. All applications must include recent, timestamped photos of each Patch, Large Patch Tree and Scattered Tree which has been mapped in this report.

Application Requirement 4 - Past removal

If past removal has been considered correctly, the information presented in this Native Vegetation Removal Report addresses Application Requirement 4.

Application Requirement 5 - Avoid and minimise statement

This statement describes what has been done to avoid and minimise impacts on native vegetation and associated biodiversity values.

Vegetation removal could not be avoided on this site, due to the defendable space area and vegetation management requirements. However, the following strategies have been implemented to minimize vegetation removal and reduce the number of trees requiring removal to accommodate for the development proposal.
 This application was originally submitted to Council by the owners in July 2021 (application #T210451) with a 12.5 BAL (Bushfire Attack Level) design at that time encompassed many trees that would have required removal (140/170 trees) in a 75m DS. Various changes occurred with different versions (2022-23) until this proposal has been put forward after lengthy discussions with council and DEECA.

Site challenges

- the Large Old trees located equidistant from one another and had large spreading canopies and large TPZ's. As many were in the West area of the block, these were avoided by moving the dwelling forward to its current proposed location. This avoided the removal of 10 VLOT/LOTS (and an additional 3 MLOTs . By proposing the 32 m defendable space additional LOT/VLOTs are this also meant that another 2 LOTs, 1 VLOT & 3 MLOTs could also be retained.
 - the installation of the Personal Bushfire Shelter has required that Trees D, X & 3 also be removed as they will be within fall strike of the shelter. D & X are LOTs.
 - the poor structure of some trees making it not possible to retain them as stand-alone trees (structurally poor or not suitable to safely retain as standalone trees) due to the BMO requirements for canopy separation.
 - The location of the dwelling towards the eastern boundary and front of the property (east) to retain most VLOT/LOT's with longest ULE and best structure and best location.
 - Development proposal for dwelling, driveway extension and shed is consolidated within the 32m DS which minimises earthworks (cut & fill) as built across the contours.
 - Retaining most LOT's and trees with longest ULE and removing smaller, younger clumps of trees with poor structure in preference.
 - Pruning trees for habitat and less than 1/3 canopy to retain trees.
 - Siting of works within modified area of site with least biodiversity and lower condition score (adjusted) Loss area reduced below 0.5Ha (avoiding the detailed pathway), achieving an intermediate pathway. This proposal has further minimized by This current proposal has further reduced the dwelling footprint, relocated the shed, extended the driveway, reduced earthworks, increased the BAL construction of the dwelling to BAL40, installed a Personal Bushfire shelter and reduced the defendable spaces area but increased the compliance of this 32m N, E & S and 39m to the W..
- Summary Tree Loss - minimisation journey
- 2022: A, C, D, F, P, Y & 143 (LOTS/VLOTS) =7 LOTs and 113 trees
- 2023: C, F, K, M, P, Y & 143 (LOTS/VLOTS) =7 LOTs and 42 trees
- 2025: C, D, F, K, M, P, X, Y & 143 (LOTS/VLOTS) =9 LOTs and 38 trees
- No further opportunity exists to minimise vegetation removal/loss

Application Requirement 6 - Property Vegetation Plan

This requirement only applies if an approved Property Vegetation Plan (PVP) applies to the property
Does a PVP apply to the proposal?

Yes, the PVP will be included in the application.

Application Requirement 7 - Defendable space statement

Where the removal of native vegetation is to create defendable space, this statement:

- Describes the bushfire threat; and
- Describes how other bushfire risk mitigation measures were considered to reduce the amount of native vegetation proposed for removal (this can also be part of the avoid and minimise statement).

This statement is not required if, If the proposed defendable space is within the Bushfire Management Overlay (BMO), and in accordance with the 'Exemption to create defendable space for a dwelling under Clause 44.06 of local planning schemes' in Clause 52.12-5.

The bushfire risk of this area is considered high.
Many mitigation measures have been applied to reduce this threat.



PBS installed
 Construction to BAL 40
 Watertanks
 CFA compliant driveway off a made road
 Compliant defendable space
 There will be 38 trees removed for Defendable Space for this proposal. Understory in this area is already managed for fire safety purposes, and will continue to be modified to meet BMO & BMP vegetation criteria.

Application Requirement 8 - Native Vegetation Precinct Plan

This requirement is only applicable if you are removing native vegetation from within an area covered by Native Vegetation Precinct Plan (NVPP), and the proposed removal is not identified as 'to be removed' within the NVPP.

Does an NVPP apply to the proposal?

No

Application Requirement 9 - Offset statement

This statement demonstrates that an offset is available and describes how the required offset will be secured. The Applicant's Guide provides information relating to this requirement.

A third party vegetation credit will be purchased to satisfy any offset amount greater than what amount can be secured within a first party offset onsite, calculated once the planning process has progressed. Credits are available and the owners are aware of the cost.

A first party offset is an option on this site due to an area being available at rear of the property being away from the required 150m proximity of neighbouring dwellings and the proposed dwelling on the subject property. The offset area has a much higher quality vegetation which will be contained within a Conservation Zone, it does also contain a minimum of 8 L.O.T's and 1 V.L.O.T (preliminary inspection, others are also present) proposed for permanent protection after the loss of the LOT/LOTs in the proposed development area. The extended loss (deficit once first party avenues have been explored and secured) will need to be achieved with a third-party OTC vegetation credit will be sourced to satisfy the offset amount once the planning process has progressed. Trust for Nature have been contacted with regards to covenant possibilities.


Cardinia
ADVERTISED MATERIAL
 Planning Application: T210451
 Date Prepared: 10 April 2026

This copied document is made available for the purpose of the planning process as set out in the Planning and Environment Act 1987. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.



Next steps

Applications to remove, destroy or lop native vegetation must address all the application requirements specified in the Guidelines. If you wish to remove the mapped native vegetation you are required to apply for approval from the responsible authority (e.g. local Council). This Native vegetation removal report must be submitted with your application and meets most of the application requirements. The following requirements need to be addressed, as applicable.

Application Requirement 3 - Photographs of the native vegetation to be removed

Recent, dated photographs of the native vegetation to be removed **must be provided** with the application. All photographs must be clear, show whether the vegetation is a Patch of native vegetation, Patch Tree or Scattered Tree, and identify any Large Trees. If the area of native vegetation to be removed is large, provide photos that are indicative of the native vegetation.

Ensure photographs are attached to the application. If appropriate photographs have not been provided the application is not complete.

Application Requirement 6 - Property Vegetation Plan

If a PVP is applicable, it must be provided with the application.



ADVERTISED MATERIAL
Planning Application: T210451
Date Prepared: 10 April 2026

This copied document is made available for the purpose of the planning process as set out in the Planning and Environment Act 1987. This information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.

Appendix 1: Description of native vegetation to be removed

General Habitat Units for each zone (Patch, Scattered Tree or Patch Tree) are calculated by the following equation in accordance with the Guidelines

General Habitat Units = extent without overlap x condition score x general landscape factor x 1.5, where the general landscape factor = 0.5 + (strategic biodiversity value score/2)

The General Offset amount required is the sum of all General Habitat Units per zone.

Native vegetation to be removed

Information provided by or on behalf of the applicant			Information calculated by NVR Map							
Zone	Type	DBH (cm)	EVC code (modelled)	Bioregional conservation status	Large Tree(s)	Condition score (modelled)	Polygon extent (ha)	Extent without overlap (ha)	SBV score	General Habitat Units
1	Patch	-	HSF_0029	Least Concern	9	0.759	0.497	0.497	0.654	0.468



ADVERTISED MATERIAL

Planning Application: T210451
Date Prepared: 10 April 2026

This copied document is made available for the purpose of the planning process as set out in the *Planning and Environment Act 1987*. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.

Appendix 2: Images of mapped native vegetation

1. Property in context



- Proposed Removal
- Property Boundaries



Cardinia

ADVERTISED MATERIAL

Planning Application: T210451

Date Prepared: 10 April 2026

This copied document is made available for the purpose of the planning process as set out in the *Planning and Environment Act 1987*. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.

Page 8

2. Aerial photograph showing mapped native vegetation



■ Proposed Removal



Cardinia

ADVERTISED MATERIAL

Planning Application: T210451

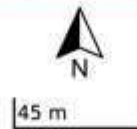
Date Prepared: 10 April 2026

This copied document is made available for the purpose of the planning process as set out in the *Planning and Environment Act 1987*. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.

3. Location Risk Map



- Proposed Removal
- Location 1
- Location 2
- Location 3




Cardinia

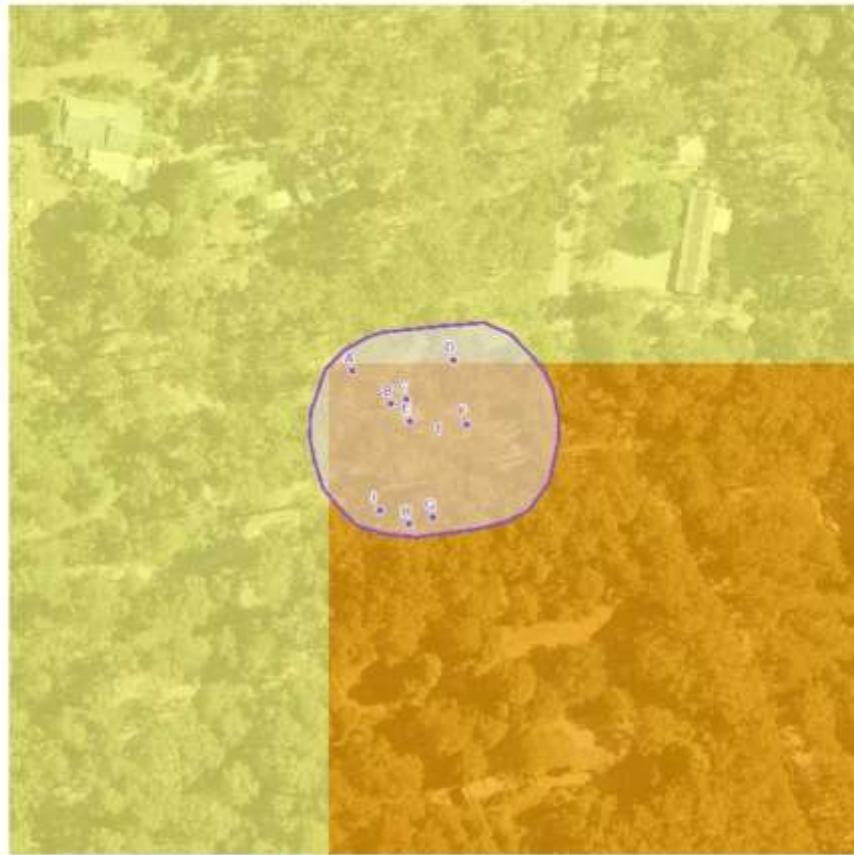
ADVERTISED MATERIAL

Planning Application: T210451
Date Prepared: 10 April 2026

This copied document is made available for the purpose of the planning process as set out in the *Planning and Environment Act 1987*. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.



4. Strategic Biodiversity Value Score Map



- Proposed Removal
- 0.81 - 1.00
- 0.61 - 0.80
- 0.41 - 0.60
- 0.21 - 0.40
- 0.00 - 0.20

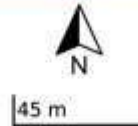
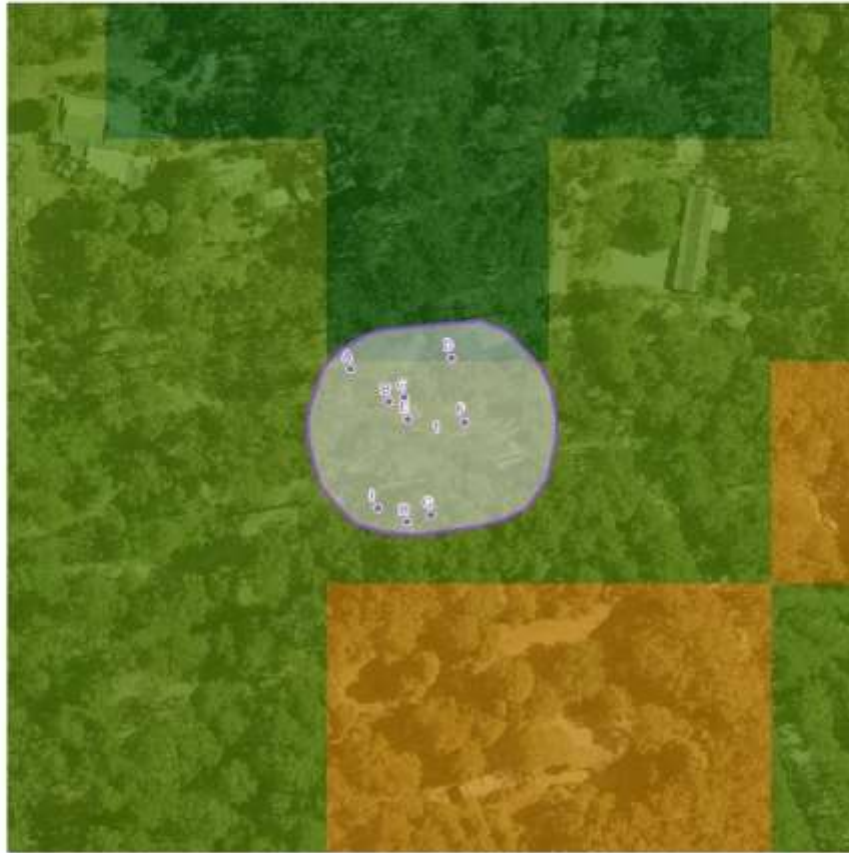



Cardinia
ADVERTISED MATERIAL
Planning Application: T210451
Date Prepared: 10 April 2026

This copied document is made available for the purpose of the planning process as set out in the *Planning and Environment Act 1987*. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.



5. Condition Score Map




Cardinia
ADVERTISED MATERIAL
Planning Application: T210451
Date Prepared: 10 April 2026

This copied document is made available for the purpose of the planning process as set out in the *Planning and Environment Act 1987*. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.



6. Endangered EVCs

Not Applicable

© The State of Victoria Department of Energy, Environment and Climate Action 2025



This work is licensed under a Creative Commons Attribution 4.0 International licence. You are free to re-use the work under that licence, on the condition that you credit the State of Victoria as author. The licence does not apply to any images, photographs or branding, including the Victorian Coat of Arms, the Victorian Government logo and the Department of Energy, Environment and Climate Change (DEECA) logo. To view a copy of this licence, visit <http://creativecommons.org/licenses/by/4.0/>

Disclaimer

This publication may be of assistance to you but the State of Victoria and its employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss or other consequence which may arise from you relying on any information in this publication.


ADVERTISED MATERIAL
Planning Application: T210451
Date Prepared: 10 April 2026
This copied document is made available for the purpose of the planning process as set out in the *Planning and Environment Act 1987*. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.

Habitat Hectare – Vegetation Quality Field Assessment

Vegetation Quality Field Assessment Sheet
Version 1.3 - October 2004

Department of Sustainability and Environment

Site Name/No. 61 hivio Dve Location Gembrook Date Oct. 2024
 Assessor(s) TKB/CJ Map Name/No. DS 0-4744 AMG/MGA Cardinia
 Tenure Private EVC 29 M/GIC 3.34a Bioregion HSF

'Site Condition Score'

Large Trees 90 Lot 20/46 Score 9

Category & Description	% Canopy Health*		
	> 70%	30-70%	< 30%
None present	0	0	0
> 0 to 20% of the benchmark number of large trees/ha	3	2	1
> 20% to 40% of the benchmark number of large trees/ha	4	3	2
> 40% to 70% of the benchmark number of large trees/ha	6	5	4
> 70% to 100% of the benchmark number of large trees/ha	8	7	6
≥ the benchmark number of large trees/ha	10	9	8

Large trees are defined by diameter at breast height (dbh) - see EVC benchmark.
 * Estimate proportion of an expected healthy canopy cover that is present (i.e. not missing due to tree death or decline, or mistletoe infestation).

Understorey Life forms

LF Code from EVC benchmark	# spp observed / Benchmark spp.	% cover observed / Benchmark % cover	Present (✓)	Modified (✓)
IT	4/4	10/5	✓	✓
T	3/4	5/20	✓	✓
MS	4/7	1/25		
SS	15/1	5/1	✓	
MH	0/4	0/5		
SH	9/2	5/1	✓	
ITa	2/2	5/5	✓	
LMB	0/1	0/10		
MTE	4/1	1/1	✓	
MNG	3/1	1/1	✓	
GF	4/3	2/15	✓	✓
TRF	2/2	0.5/10	✓	✓
SC	1/3	1/5	✓	✓
BL	-/1	1/20		
	1	1	10	5

For life forms with benchmark cover of < 10%, considered 'present' if:
 • any specimens are observed.
 For life forms with benchmark cover of ≥ 10%, considered 'present' if:
 • the life form occupies at least 10% of benchmark cover.
 For life forms with benchmark cover of < 10%, then considered substantially 'modified' if the life form has either:
 • < 50% of the benchmark species diversity; or
 • no reproductively-mature specimens are observed.
 Modified (apply only where life form is 'present')
 For life forms with benchmark cover of ≥ 10%, then considered substantially 'modified' if the life form has either:
 • < 50% of benchmark cover; or
 • < 50% of benchmark species diversity; or
 • ≥ 50% of benchmark cover due largely to immature canopy specimens but the cover of reproductively-mature specimens is < 10% of the benchmark cover.

Tree Canopy Cover 40% Score 2

Category & Description	% Canopy Health*		
	> 70%	30-70%	< 30%
< 10% of benchmark cover	0	0	0
< 50% or > 150% of benchmark cover	3	2	1
≥ 50% or ≤ 150% of benchmark cover	5	4	3

Tree canopy is defined as those canopy tree species reaching ≥ 10% of mature height - see EVC benchmark description.
 * Estimate proportion of an expected healthy canopy cover that is present (i.e. not missing due to tree death or decline, or mistletoe infestation).

Lack of Weeds Risk Low Score 9

Category & Description	High threat weeds*		
	None	≤ 50%	> 50%
> 50% cover of weeds	4	2	0
25 - 50% cover of weeds	7	6	4
5 - 25% cover of weeds	11	9	7
< 5% cover of weeds**	15	13	11

* proportion of weed cover due to 'high threat' weeds - see EVC benchmark for guide.
 High threat weed species are defined as those introduced species (including non-indigenous 'natives') with the ability to out-compete and substantially reduce one or more indigenous life forms in the longer term assuming on-going current site characteristics and disturbance regime.
 The EVC benchmark lists typical weed species for the EVC in the bioregion and provides an estimate of their 'invasiveness' and 'impact'. In general, those weed species considered to have a high impact are considered high threat regardless of their invasiveness.

** If total weed cover is negligible (<1%) and high threat weed species are present then score '13'.

Understorey Score 10

Category & Description	Score
All strata and Life forms effectively absent	0
Up to 50% of life forms present	5
≥ 50% to 90% of Life forms present	10
• of those present, ≥ 50% substantially modified	15
• of those present, < 50% substantially modified	15
≥ 90% of Life forms present	15
• of those present, ≥ 50% substantially modified	20
• of those present, < 50% substantially modified	20
• of those present, none substantially modified	25

This copy is for public use only. It is not to be used for any other purpose. By using a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.

Vegetation Quality Field Assessment Sheet Version 1.3 - October 2004

Recruitment *Continuous* Score \downarrow **3**

Category & Description		High diversity**	Low diversity**
No evidence of a recruitment 'cohort'	within EVC not driven by episodic events	0	0
	within EVC driven by episodic events*	0	0
Evidence of at least one recruitment 'cohort' in at least one life-form	clear evidence of appropriate episodic event	5	5
	no clear evidence of appropriate episodic event	5	5
	proportion of native woody species present that have adequate recruitment*	< 30% - 30 - 70% - $\geq 70%$	3 - 6 - 10

* 'cohort' refers to a group of woody plants established in a single episode (can include suppressed canopy species individuals).
* refer to EVC benchmark for clarification.
* treat multiple eucalypt canopy species as one species.
* high diversity defined as $\geq 50%$ of benchmark woody species diversity.

Species Recruitment

Woody species recorded in habitat zone	Adequate Recruitment
Eucalypt canopy (combined species)	(7) X
<i>A. dealbata</i>	X
<i>A. hypoleuca</i>	X
<i>A. melanocarpa</i>	X
<i>C. maculosa</i>	X
<i>C. lasiocarpa</i>	X
<i>H. decurrens</i>	X
<i>P. laevis</i>	X
<i>P. granii</i>	X
<i>S. imbricatus</i>	X
<i>T. integrata</i>	X
<i>T. gibberna</i>	X
<i>W. sp.</i>	X
number of woody spp. in EVC benchmark (25 and taller)	0/18

Logs *30m 10-11m* Score **0**

Category & Description	Large logs present*	Large logs absent*
< 10% of benchmark length	0	0
< 50% of benchmark length	3	2
$\geq 50%$ of benchmark length	5	4

Large logs defined as those with diameter ≥ 0.5 of benchmark large tree dbh.
* present if large log length is $\geq 25%$ of EVC benchmark log length.
absent if large log length is $< 25%$ of EVC benchmark log length.

271 Organic Litter *50% cover* Score **3**

Category & Description	Dominated by native organic litter	Dominated by non-native organic litter
< 10% of benchmark cover	0	0
< 50% or $> 150%$ of benchmark cover	3	2
$\geq 50%$ or $< 150%$ of benchmark cover	5	4

'Landscape Context Score'

Patch Size Score **1**

Category & Description	Score
< 2 ha	1
Between 2 and 5 ha	2
Between 5 and 10 ha	4
Between 10 and 20 ha	6
≥ 20 ha, but 'significantly disturbed'	8
≥ 20 ha, but not 'significantly disturbed'	10

Distance to Core Area Score **4**

Distance	Core Area not significantly disturbed*	Core Area significantly disturbed*
> 5 km	0	0
1 to 5 km	2	1
< 1 km	4	3
contiguous	5	4

* 'significantly disturbed' defined as per RFA 'Old Growth' analyses e.g. mounding, covers, grazing etc. - effectively most patches within fragmented landscapes.

* defined as per RFA 'Old Growth' analyses.

Neighbourhood Score **3**

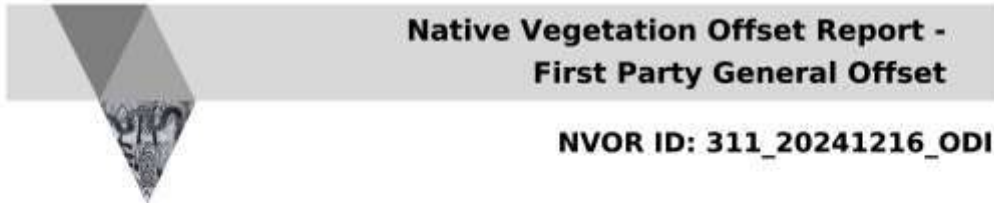
Radius from site	% Native vegetation*	Weighting	
100 m	20	0.03	0.4
1 km	40	0.04	1.6
5 km	40	0.03	1.2
subtract 2 if the neighbourhood is 'significantly disturbed'			-2.0
Add Values and 'round-off'			3.2

* to nearest 20%.
Multiply % native vegetation x weighting for each radius from the core (eg. 40% x 0.03 = 1.2); then add values to obtain final Neighbourhood Value.

Final Habitat Score

Component	'Site Condition Score'						'Landscape Context Score'		Total		
	Large Trees	Tree Canopy Cover	Leaf of Weeds	Understorey	Recruitment	Organic Litter	Logs	Patch Size		Neighbourhood	Distance to Core Area
Score	9	2	9	10	3	3	0	1	3	4	114

NATIVE VEGETATION OFFSET REPORT – Net Gain



This report provides information about the amount of potential gain available at a **first party general offset site**. Maintenance, improvement, prior management and security gain scores have been calculated using modelled condition scores. **This report cannot be used for a third party offset site.**

This report **is not** an assessment by the Department of Energy, Environment and Climate Action (DEECA). The responsible authority must confirm the offset is acceptable and meets eligibility criteria defined in the *Guidelines for the removal, destruction or lopping of native vegetation* (the Guidelines). **Page 1 and Appendix 1 of this report must be appended to the offset agreement.**

Report details

Date created: 16/12/2024
Local Government Area: CARDINIA SHIRE
Registered Aboriginal Party: Wurundjeri
Coordinates: 145.57253, -37.94619
Address: 61 LIVIO DRIVE GEMBROOK 3783

Summary of offset site

Extent	
Total Extent (ha)	0.5873
Patches (ha)	0.5873
Scattered Trees (ha)	0.0000
Revegetation (ha)	0.0000
Habitat units of gain for the proposed offset site	
General Habitat Units	0.121 Melbourne Water CMA or CARDINIA SHIRE LGA
No. Large Trees	7
Strategic Biodiversity Value Score	0.530

NB: values within tables in this document may not add to the totals shown above due to rounding



Cardinia
ADVERTISED MATERIAL
Planning Application: T210451
Date Prepared: 10 April 2026

This copied document is made available for the purpose of the planning process as set out in the Planning and Environment Act 1987. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.



Next Steps

Set up a meeting with DEECA, Trust for Nature, or your local Council to discuss establishing the offset. This will involve:

- Signing an agreement with the local Council under Section 173 of the *Planning and Environment Act 1987*, DEECA under Section 69 of the *Conservation, Forests and Lands Act 1987* or Trust for Nature under the *Conservation Trust Act 1972*.
- Commissioning a site survey plan by a registered surveyor.
- Developing an Offset Management Plan.

Offset Management Plan and Section 173 agreement templates are available at the DEECA website. If you are establishing an offset site via a Section 69 Agreement with DEECA or a Covenant with Trust for Nature, contact DEECA or Trust for Nature for the relevant templates.



ADVERTISED MATERIAL

Planning Application: T210451

Date Prepared: 10 April 2026

This copied document is made available for the purpose of the planning process as set out in the *Planning and Environment Act 1987*. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.

This copied document is not available for the purpose of the planning process as set out in the Planning and Environment Act 1967. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.

Appendix 1: Habitat units of gain per zone

This table provides the habitat units of gain per zone (Patch, Scattered Tree or Revegetation) of the offset site. The allocation of the offset site to the Vegetation Credit Register (NVCR) takes place at the zone level.

The General Habitat Units in a zone are calculated by the following equation in accordance with the Guidelines:

General Habitat Units = extent x gain score x general landscape factor, where the general landscape factor = 0.5 + (strategic biodiversity value score/2)

Information provided by or on behalf of the applicant			Information calculated by NVR Map								
Zone	Type	DBH	EVC code (modelled)	Bioregional conservation status	Large Tree(s)	Gain score (modelled)	Condition Score (modelled)	Polygon extent (ha)	Extent without overlap	SBV score	General Habitat Units
1	Patch	-	HSF_0029	Least Concern	7	0.270	0.799	0.5873	0.5873	0.530	0.121

Appendix 2 - Images of mapped native vegetation

1. Property in context



- Patches
- Scattered Trees
- Revegetation Areas
- Property Boundaries



Cardinia

ADVERTISED MATERIAL

Planning Application: T210451

Date Prepared: 10 April 2026

This copied document is made available for the purpose of the planning process as set out in the *Planning and Environment Act 1987*. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.

Page 4

2. Aerial photograph showing mapped native vegetation



- Patches
- Scattered Trees
- Revegetation Areas



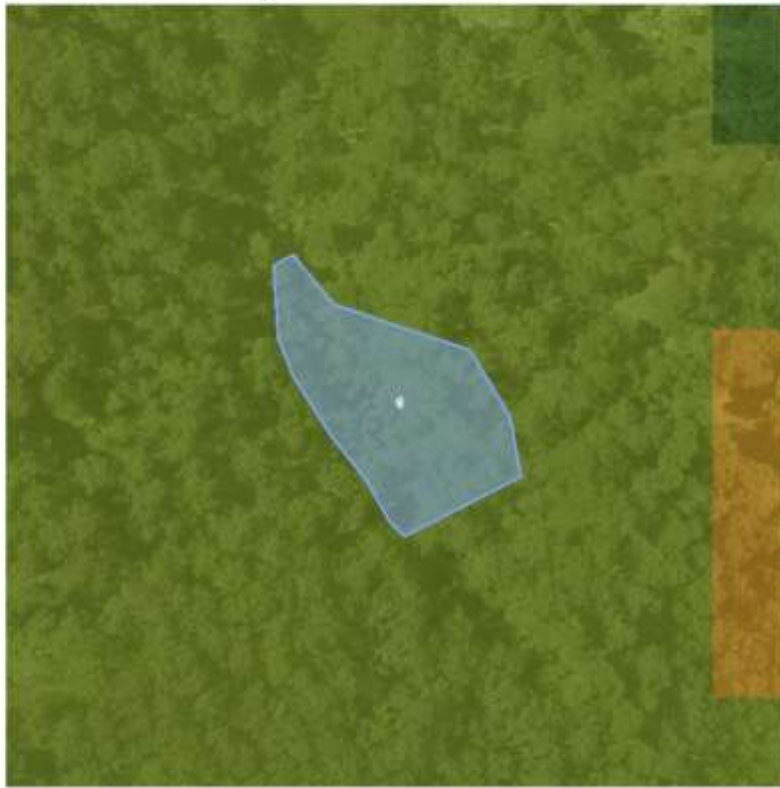

Cardinia

ADVERTISED MATERIAL

Planning Application: T210451
Date Prepared: 10 April 2026

This copied document is made available for the purpose of the planning process as set out in the *Planning and Environment Act 1987*. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.

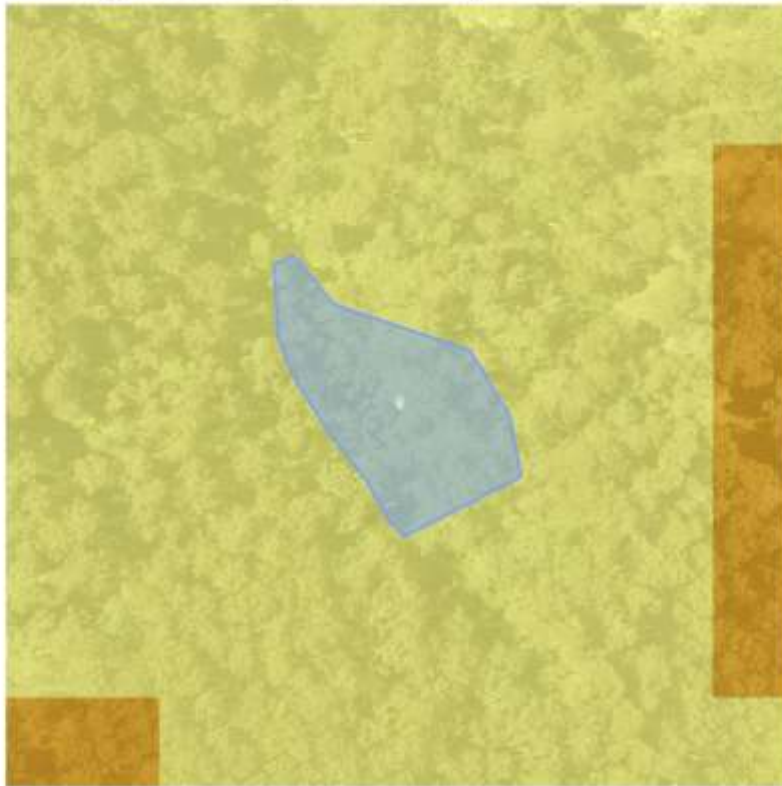
3. Condition Score Map




Cardinia
ADVERTISED MATERIAL
Planning Application: T210451
Date Prepared: 10 April 2026

This copied document is made available for the purpose of the planning process as set out in the *Planning and Environment Act 1987*. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.

4. Strategic Biodiversity Value Score Map




Cardinia
ADVERTISED MATERIAL
Planning Application: T210451
Date Prepared: 10 April 2026


This copied document is made available for the purpose of the planning process as set out in the *Planning and Environment Act 1987*. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.

Glossary

Bioregional Conservation Status (BCS)	A measure of the current extent and quality for each EVC, when compared to its original (pre-1750) extent and condition.
Canopy Tree	A mature tree (i.e. it is able to flower) that is greater than 3 metres in height and is normally found in the upper layer of the relevant vegetation type.
Condition Score	A score between 0 and 1 that describes how close native vegetation is to its mature natural state. The condition score for Patches is the weighted average condition score of the mapped native vegetation calculated using the <i>Native vegetation condition map</i> . Scattered Trees with a DBH between 75% and 100% of the Large Tree benchmark specified in the relevant local EVC are assigned a condition score of 0.12. Scattered Trees with a DBH between greater than or equal to the Large Tree benchmark specified in the relevant local EVC are assigned a condition score of 0.20.
Diameter at Breast Height (DBH)	The diameter of the main trunk of a tree measured over bark at 1.3 metres above ground level.
Ecological Vegetation Class (EVC)	A native vegetation type classified based on a combination of its floristics, lifeforms, and ecological characteristics.
Extent	The area of land covered by a Patch, a Scattered Tree and/or Revegetation, measured in hectares. Where the mapped vegetation includes Scattered Trees, each tree is assigned a standard extent and converted to hectares. For the purposes of native vegetation offsets, a Scattered Tree is assigned a standard extent defined by a circle with a 15-metre radius.
Gain score	A score between 0 and 1 that describes the predicted improvement in biodiversity value of native vegetation due to active management and increased security provided at the offset site. The gain score for a Patch of native vegetation is the weighted average gain score of the mapped native vegetation calculated using scores derived from the <i>Native vegetation condition map</i> . The gain score for a Scattered Tree with a DBH greater than or equal to the Large Tree benchmark specified in the relevant local EVC is 0.176. The gain score for a Scattered Tree with a DBH between 75% and < 100% of the Large Tree benchmark specified in the relevant local EVC is 0.080. The gain score for Revegetation areas is 0.077.
General habitat units of gain	The general habitat units of gain combines site-based and landscape scale information to obtain an overall measure of the biodiversity value of the native vegetation to be protected, calculated as follows: <i>General habitat units of gain = extent x gain score x general landscape factor</i>
General landscape factor	The general landscape factor is an adjusted Strategic Biodiversity Value score, calculated as follows: <i>General landscape factor = 0.5 + (strategic biodiversity value score/2)</i> The adjustment has been undertaken to reduce the influence of landscape scale information on the general habitat score.

Large Tree	A Large Tree is a native Canopy Tree with a DBH greater than or equal to the Large Tree benchmark for the local EVC. A Large Tree can be either a large Scattered Tree or a large Patch Tree (Canopy Tree in Patch).
Offset type	There are two types of offsets, General Offsets and Species Offsets. All offset sites include General Offsets. Sites that are mapped as habitat for rare or threatened species can also include Species Offsets for the mapped species.
Patch	A Patch of native vegetation is: <ul style="list-style-type: none"> • An area of vegetation where at least 25 per cent of the total perennial understorey plant cover is native, or • Any area with three or more native canopy trees where the drip line of each tree touches the drip line of at least one other tree, forming a continuous canopy, or • Any mapped wetland included in the Current wetlands map, available in DEECA systems and tools.
Revegetation	Revegetation is the establishment of native vegetation to a prescribed minimum standard in formerly cleared areas outside a Patch or Scattered Tree. Revegetation offset sites can only generate General Habitat Units, not Species Habitat Units. Revegetation of native vegetation must meet the eligibility requirements outlined in the Guidelines.
Scattered Tree	A native Canopy Tree that does not form part of a Patch. At least five canopy species plants must be recruited or planted for each Scattered Tree that is protected.
Strategic Biodiversity Value (SBV) score	The Strategic Biodiversity Value score represents the complementary contribution to Victoria's biodiversity of a location, relative to other locations across the state. This score is the weighted average Strategic Biodiversity Value score of the mapped native vegetation calculated using the Strategic Biodiversity Value map.

© The State of Victoria Department of Energy, Environment and Climate Action 2024

 This work is licensed under a Creative Commons Attribution 4.0 International licence. You are free to re-use the work under that licence, on the condition that you credit the State of Victoria as author. The licence does not apply to any images, photographs or branding, including the Victorian Coat of Arms, the Victorian Government logo and the Department of Energy, Environment and Climate Change (DEECA) logo. To view a copy of this licence, visit <http://creativecommons.org/licenses/by/4.0/>

Disclaimer

This publication may be of assistance to you but the State of Victoria and its employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss or other consequence which may arise from you relying on any information in this publication.



ADVERTISED MATERIAL
 Planning Application: T210451
 Date Prepared: 10 April 2026

This copied document is made available for the purpose of the planning process as set out in the Planning and Environment Act 1987. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.

This copied document is made available for the purpose of the planning process as set out in the *Planning and Environment Act 1987*. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.

Previous plans and trees to be removed – Minimization journey



Rev G. 2023 Site map – proposed

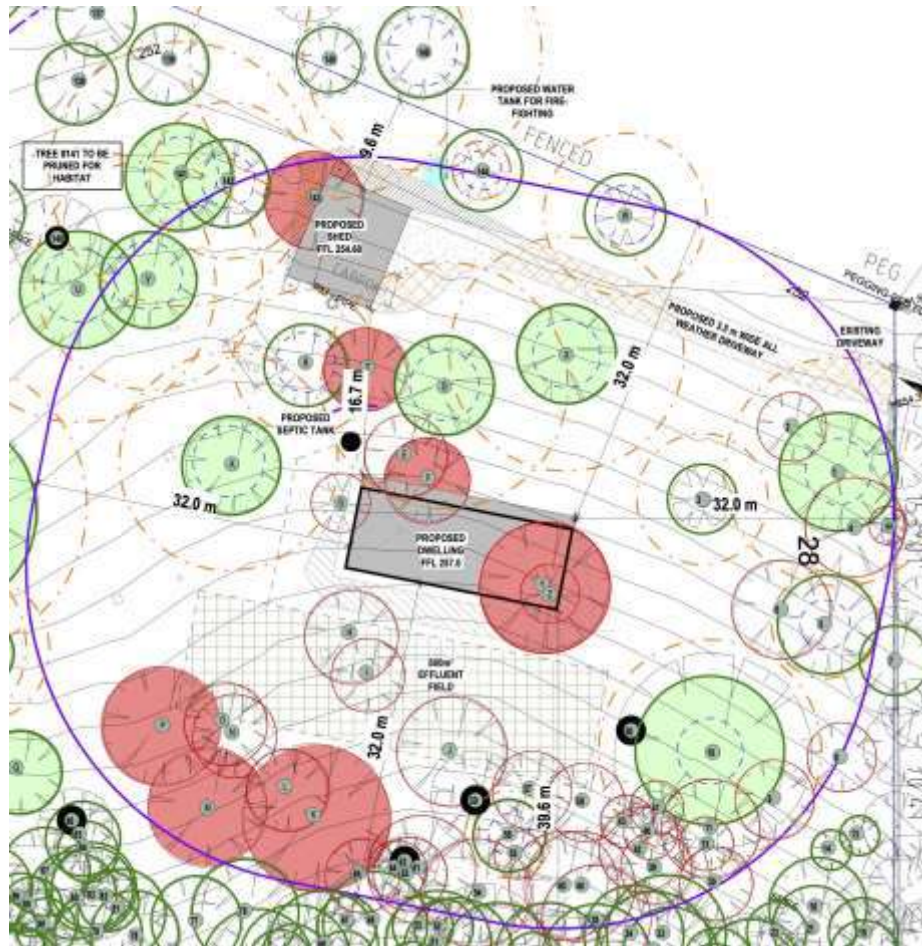
development with TPZ's & SRZ's of trees to remain.

ADVERTISED MATERIAL

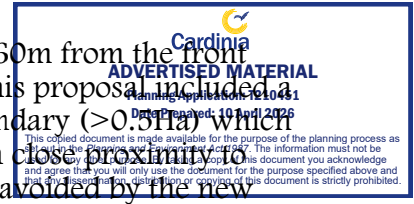
Planning Application: T210451

Date Prepared: 10 April 2026

This copied document is made available for the purpose of the planning process as set out in the *Planning and Environment Act 1987*. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.



Rev G, 2023 Close -up Site map – proposed development with TPZ’s & SRZ’s of trees to remain.



The original development proposal had the dwelling setback 60m from the front boundary with Livio Drive and the shed directly behind it. This proposal included a much greater area of defensible space being to property boundary (>0.5Ha) which included additional trees, many of which were LOT/VLOTS in close proximity to one another, whose removal/modification is now completely avoided by the new dwelling location and minimised defensible space area.

This original configuration saw the loss of 140 trees (including 17 LOT/VLOTS), this was then reduced to the previous configuration removing 113 of a total of 173 trees (inc. 6 L.O.T.'s & 1 V.L.O.T), whilst this version now sees the removal of only 42 (41 live & 1 dead) out of 173 trees total (5 LOTs & 2 VLOTS).

The loss still includes 5 L.O.T.'s and 2 V.L.O.Ts, however it is hoped these can be offset within the potential Conservation Area on the property as a first party offset. This is shown in the Appendices of this document, however as discussed with Council, the securing of the offset (first and third party) and development of the Conservation Area onsite would be a condition of the permit, however we have retained this information to prove the potential onsite. The re-configuration of the dwelling location has maintained the number of L.O.T.'s lost, however the specific trees have changed I.e.

- 2022: A, C, D, F, P, Y & 143 (LOTs/VLOTs) =7 LOTs and 113 trees
- 2023: C, F, K, M, P, Y & 143 (LOTs/VLOTs) =7 LOTs and 42 trees
- 2024: C, D, F, K, M, P, X, Y & 143 (LOTs/VLOTs) =9 LOTs and 37 trees
- 2025: C, D, F, K, M, P, X, Y & 143 (LOTs/VLOTs) =9 LOTs and 32 trees

Defendable Space

The dwelling location presented in this proposal has been dictated by the defensible space setbacks from the property boundaries (minimum BAL 29) and this has resulted in the dwelling being 32m from the front boundary to the East, and North boundary. 32m defensible space has been provided and approved in principle by CFA/FRV to the West and South with the additional 25m or to property boundary continued to be managed for modified understorey with trees retained.

New DS, proposed dwelling to be minimum 32m setback from property boundaries and to be 39m to the west, there is no longer a modified 25m modified DS.


This additional 25m (modified DS) has been added due to the high-risk landscape. It is proposed that within the 32m DS, standard canopy separation (5m minimum for perpetuity) and bushfire vegetation modification be adhered to, and that within the extended 25m west and south that all understorey is modified and all trees to be retained, as detailed in correspondence from CFA.

Summary of trees within the defensible space (32m or to property boundary in all directions) have been tabulated below so as minimisation process can be documented;

Table below shows all Trees within the proposed development zone (from 2021/23/24/25 proposals)

Legend of acronyms: LOT – Large Old tree; VLOT – Very Large Old tree, DS = Defendable Space – 32m in all directions, DS+25m = additional 25m Defendable Space with modified understorey, trees remain. *New DS= 32m N, E, S & 39m W*

No.	Species	Circ. cm	R./Ret 2021	R./Ret 2023	R./Ret 2024	R./Ret 2025	Notes & DS Zone present proposal
A	<i>Eucalyptus radiata</i> (Narrow-leaf Peppermint)	289	R	Ret	Ret	Ret	DS. L.O.T. Maintain CS from #A
B	<i>Eucalyptus radiata</i>	192	R	Ret	Ret	Ret	DS. Maintain CS from #A
C	<i>Eucalyptus obliqua</i> (Messmate)	327	R	R	R	R	DS. L.O.T.
D	<i>Eucalyptus obliqua</i>	324	R	Ret	R	R	DS PBS. L.O.T.
E	<i>Eucalyptus sieberi</i> (Silvertop Ash)	270	R	R	R	R	DS.
F	<i>Eucalyptus radiata</i>	298	R	R	R	R	DS. Dwelling L.O.T
G	<i>Eucalyptus radiata</i>	245	R	R	R	R	DS. Dwelling
H	<i>Eucalyptus obliqua</i>	251	R	R	R	R	DS. Effluent Field
I	<i>Eucalyptus obliqua</i>	135	R	R	R	R	DS. Effluent Field
J	<i>Eucalyptus radiata</i>	223	R	R	R	R	DS. Effluent Field
K	<i>Eucalyptus radiata</i>	298	Ret	R	R	R	DS. L.O.T.
L	<i>Eucalyptus radiata</i>	198	R	R	R	R	DS.
M	<i>Eucalyptus obliqua</i>	423	Ret	R	R	R	DS. V.L.O.T.
N	<i>Eucalyptus radiata</i>	198	R	R	R	R	DS.
O	<i>Eucalyptus obliqua</i>	129	R	R	R	R	DS.
P	<i>Eucalyptus obliqua</i>	330	R	R	R	R	DS. L.O.T.
Q	<i>Eucalyptus radiata</i>	289	Ret	Ret	Ret	Ret	L.O.T
R	<i>Eucalyptus obliqua</i>	195	R	Ret	Ret	Ret	Out DS
S	<i>Eucalyptus obliqua</i>	256	Ret	Ret	Ret	Ret	Out DS
T	<i>Eucalyptus obliqua</i>	424	Ret	Ret	Ret	Ret	V.L.O.T.
U	<i>Eucalyptus obliqua</i>	361	Ret	Ret	Ret	Ret	L.O.T.
V	<i>Eucalyptus sieberi</i>	308	Ret	Ret	Ret	Ret	DS L.O.T.
W	<i>Eucalyptus radiata</i>	217	Ret	Ret	Ret	Ret	DS.


ADVERTISED MATERIAL
present proposal
 Date Proposed: 10 April 2026
 This copied document is made available for the purpose of the planning process as set out in the Planning and Environment Act 2025. The information must not be used for any other purpose. By using this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.

No.	Species	Circ. cm	R./Ret 2021	R./Ret 2023	R./Ret 2024	R./Ret 2025	Notes & DS Zone present proposal
X	<i>Eucalyptus sieberi</i>	308	Ret	Ret	R	R	DS. L.O.T. Date Prepared: 10 April 2026
Y	<i>Eucalyptus radiata</i>	314	R	R	R	R	DS. L.O.T.
Z	<i>Eucalyptus radiata</i>	100	R	R	R	R	DS.
1	<i>Eucalyptus radiata</i>	302	Ret	Ret	Ret	Ret	DS. L.O.T
2	<i>Eucalyptus obliqua</i>	226	R	R	R	R	DS.
3	<i>Eucalyptus radiata</i>	173	R	Ret	R	R	DS. PBS
4	<i>Eucalyptus radiata</i>	280	R	R	R	R	DS.
4A	<i>Eucalyptus radiata</i>	60	R	R	R	R	DS.
5	<i>Eucalyptus radiata</i>	141	Ret	Ret	Ret	Ret	DS. Maintain CS with #1 & 10.
6	<i>Eucalyptus obliqua</i>	198	R	R	R	R	DS.
7	<i>Eucalyptus radiata</i>	144	R	Ret	Ret	Ret	Out DS
8	<i>Eucalyptus radiata</i>	144	R	R	R	Ret	Out DS
9	<i>Eucalyptus radiata</i>	175	R	R	R	R	DS.
10	<i>Eucalyptus radiata</i>	290	Ret	Ret	Ret	Ret	DS. L.O.T. Maintain CS with #5 & 56
11	<i>Eucalyptus obliqua</i>	145	R	R	R	R	DS.
12	<i>Eucalyptus obliqua</i>	75	R	R	R	R	DS.
13	<i>Eucalyptus radiata</i>	29	Ret	Ret	Ret	Ret	DS.
14	<i>Eucalyptus radiata</i>	34	R	Ret	Ret	Ret	Out DS
15	<i>Eucalyptus radiata</i>	47	R	Ret	Ret	Ret	Out DS
16	<i>Eucalyptus radiata</i>	129	R	Ret	Ret	Ret	Out DS
17	<i>Eucalyptus radiata</i>	53	R	Ret	Ret	Ret	Out DS
18	<i>Eucalyptus obliqua</i>	69	R	Ret	Ret	Ret	Out DS
19	<i>Acacia implexa</i>	41	R	Ret	Ret	Ret	Out DS
20	<i>Eucalyptus radiata</i>	91	R	Ret	Ret	Ret	Out DS
21	<i>Eucalyptus macrorhyncha</i>	146	R	Ret	Ret	Ret	Out DS
22	<i>Eucalyptus radiata</i>	40	R	Ret	Ret	Ret	Out DS

No.	Species	Circ. cm	R./Ret 2021	R./Ret 2023	R./Ret 2024	R./Ret 2025	Notes & DS Zone present proposal
23	<i>Eucalyptus radiata</i>	56	R	Ret	Ret	Ret	Out DS <small>Cardinia ADVERTISED MATERIAL Planning Application: T210451 Date Prepared: 10 April 2026</small>
24	<i>Eucalyptus radiata</i>	70	R	Ret	Ret	Ret	Out DS <small>This copied document is made available for the purpose of the planning process as set out in the Planning and Environment Act 1987. The information must not be used for any other purpose. If you are in possession of a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.</small>
25	<i>Eucalyptus radiata</i>	65	R	Ret	Ret	Ret	Out DS
26	<i>Eucalyptus obliqua</i>	175	R	Ret	Ret	Ret	Out DS
27	<i>Eucalyptus radiata</i>	55	R	Ret	Ret	Ret	Out DS
28	<i>Eucalyptus radiata</i>	80	R	Ret	Ret	Ret	Out DS
29	<i>Eucalyptus radiata</i>	70	R	Ret	Ret	Ret	Out DS
30	<i>Acacia implexa</i>	60	R	R	Ret	Ret	Out DS
31	<i>Eucalyptus obliqua</i>	185	R	Ret	Ret	Ret	Out DS
32	<i>Eucalyptus sieberi</i>	80	R	Ret	Ret	Ret	Out DS
33	<i>Eucalyptus obliqua</i>	157	R	Ret	Ret	Ret	Out DS
34	<i>Eucalyptus radiata</i>	65	R	Ret	Ret	Ret	Out DS
35	<i>Eucalyptus radiata</i>	55	R	Ret	Ret	Ret	Out DS
36	<i>Eucalyptus radiata</i>	47	R	Ret	Ret	Ret	Out DS
37	<i>Eucalyptus macrorhyncha</i>	146	Ret	Ret	Ret	Ret	Out DS
38	<i>Eucalyptus obliqua</i>	157	R	R	R	Ret	Out DS
39	<i>Eucalyptus obliqua</i>	88	R	R	R	R	DS.
40	<i>Acacia dealbata</i>	85	R	R	R	R	DS.
41	<i>Eucalyptus radiata</i>	63	R	R	R	R	DS.
42	<i>Eucalyptus macrorhyncha</i>	66	R	R	R	R	DS.
43	<i>Eucalyptus radiata</i>	138	R	R	R	R	DS.
44	<i>Eucalyptus sieberi</i>	129	R	R	R	R	DS.
45	<i>Eucalyptus obliqua</i>	160	R	R	R	R	DS.
46	<i>Acacia dealbata</i>	92	R	Ret	Ret	Ret	Out DS
47	<i>Eucalyptus obliqua</i>	120	R	Ret	Ret	Ret	Out DS
48	<i>Eucalyptus macrorhyncha</i>	135	R	Ret	Ret	Ret	Out DS

No.	Species	Circ. cm	R./Ret 2021	R./Ret 2023	R./Ret 2024	R./Ret 2025	Notes & DS Zone present proposal
49	<i>Eucalyptus radiata</i>	107	R	Ret	Ret	Ret	Out DS <div style="border: 1px solid black; padding: 2px; font-size: 8px;"> This copied document is made available for the purpose of the planning process as set out in the Planning and Environment Act 1967. The information must not be used for any other purpose. If you are in possession of a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited. </div>
50	<i>Eucalyptus radiata</i>	95	R	Ret	Ret	Ret	Out DS
51	<i>Eucalyptus radiata</i>	123	R	Ret	Ret	Ret	Out DS
52	<i>Eucalyptus radiata</i>	57	R	Ret	Ret	Ret	Out DS
53	<i>Eucalyptus radiata</i>	53	R	Ret	Ret	Ret	Out DS
54	<i>Eucalyptus radiata</i>	116	R	R	R	R	DS.
55	<i>Eucalyptus macrorhyncha</i>	70	R	R	R	R	DS.
56	<i>Eucalyptus macrorhyncha</i>	115	R	Ret	Ret	Ret	DS.
57	<i>Eucalyptus macrorhyncha</i>	75	R	R	R	R	DS.
58	<i>Eucalyptus obliqua</i>	88	R	R	R	R	DS.
59	Dead	370	R	n/a	Na	Na	fallen
60	Dead	390	R	n/a	Na	Na	fallen
61	<i>Eucalyptus macrorhyncha</i>	50	R	R	R	R	DS.
62	Dead	157	R	R	R	R	DS.
63	<i>Acacia dealbata</i>	85	R	R	R	R	DS.
64	<i>Eucalyptus macrorhyncha</i>	45	R	R	R	R	DS.
65	<i>Eucalyptus macrorhyncha</i>	95	R	R	R	Ret	Out DS
66	<i>Eucalyptus radiata</i>	105	R	Ret	Ret	Ret	Out DS
67	<i>Eucalyptus radiata</i>	45	R	Ret	Ret	Ret	Out DS
68	<i>Eucalyptus macrorhyncha</i>	132	R	Ret	Ret	Ret	Out DS
69	<i>Eucalyptus macrorhyncha</i>	116	R	Ret	Ret	Ret	Out DS
70	<i>Eucalyptus radiata</i>	190	R	Ret	Ret	Ret	Out DS
71	<i>Acacia implexa</i>	110	R	Ret	Ret	Ret	Out DS
72	<i>Eucalyptus obliqua</i>	200	R	Ret	Ret	Ret	Out DS
73	<i>Eucalyptus macrorhyncha</i>	53	R	Ret	Ret	Ret	Out DS
74	<i>Eucalyptus obliqua</i>	157	R	Ret	Ret	Ret	Out DS
75	<i>Acacia melanoxylon</i>	120	R	Ret	Ret	Ret	Out DS


No.	Species	Circ. cm	R./Ret 2021	R./Ret 2023	R./Ret 2024	R./Ret 2025	Notes & DS Zone present proposal
76	<i>Eucalyptus macrorhyncha</i>	47	R	Ret	Ret	Ret	Out DS <div style="border: 1px solid black; padding: 2px; font-size: 8px;"> This copied document is made available for the purpose of the planning process as set out in the Planning and Environment Act 1967. The information must not be used for any other purpose. If you are in possession of a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited. </div>
77	<i>Acacia dealbata</i>	75	R	Ret	Ret	Ret	Out DS
78	<i>Eucalyptus obliqua</i>	135	R	Ret	Ret	Ret	Out DS
79	<i>Eucalyptus obliqua</i>	135	R	Ret	Ret	Ret	Out DS
80	<i>Eucalyptus radiata</i>	122	Ret	Ret	Ret	Ret	Out DS
81	<i>Eucalyptus obliqua</i>	63	R	Ret	Ret	Ret	Out DS
82	<i>Eucalyptus macrorhyncha</i>	129	R	Ret	Ret	Ret	Out DS
83	<i>Eucalyptus macrorhyncha</i>	135	R	Ret	Ret	Ret	Out DS
84	<i>Acacia melanoxylon</i>	65	R	Ret	Ret	Ret	Out DS
85	<i>Eucalyptus obliqua</i>	104	R	Ret	Ret	Ret	Out DS
86	Dead	192	Ret	Ret	Ret	Ret	Out DS
87	<i>Eucalyptus macrorhyncha</i>	123	R	Ret	Ret	Ret	Out DS
88	<i>Acacia melanoxylon</i>	82	R	Ret	Ret	Ret	Out DS
89	<i>Acacia melanoxylon</i>	60	R	Ret	Ret	Ret	Out DS
90	<i>Eucalyptus obliqua</i>	53	R	Ret	Ret	Ret	Out DS
91	<i>Eucalyptus obliqua</i>	56	R	Ret	Ret	Ret	Out DS
92	<i>Eucalyptus obliqua</i>	251	Ret	Ret	Ret	Ret	Out DS
93	<i>Acacia melanoxylon</i>	92	R	Ret	Ret	Ret	Out DS
94	<i>Eucalyptus obliqua</i>	167	Ret	Ret	Ret	Ret	Out DS
95	<i>Eucalyptus obliqua</i>	135	R	Ret	Ret	Ret	Out DS
96	<i>Eucalyptus obliqua</i>	98	R	Ret	Ret	Ret	Out DS
97	<i>Acacia dealbata</i>	120	R	Ret	Ret	Ret	Out DS
98	<i>Eucalyptus obliqua</i>	164	R	Ret	Ret	Ret	Out DS
99	Dead	163	Ret	Ret	Ret	Ret	Out DS
100	<i>Eucalyptus obliqua</i>	173	Ret	Ret	Ret	Ret	Out DS
101	<i>Eucalyptus radiata</i>	67	Ret	Ret	Ret	Ret	Out DS

No.	Species	Circ. cm	R./Ret 2021	R./Ret 2023	R./Ret 2024	R./Ret 2025	Notes & DS Zone present proposal
102	<i>Eucalyptus obliqua</i>	145	Ret	Ret	Ret	Ret	Out DS <small>Cardinia ADVERTISED MATERIAL Planning Application: T210451 Date Prepared: 10 April 2026 This copied document is made available for the purpose of the planning process as set out in the Planning and Environment Act 1967. The information must not be used for any other purpose. If you are in possession of a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.</small>
103	<i>Eucalyptus obliqua</i>	75	Ret	Ret	Ret	Ret	Out DS
104	<i>Eucalyptus obliqua</i>	88	Ret	Ret	Ret	Ret	Out DS
105	<i>Eucalyptus obliqua</i>	116	Ret	Ret	Ret	Ret	Out DS
106	<i>Eucalyptus obliqua</i>	170	Ret	Ret	Ret	Ret	Out DS
107	<i>Eucalyptus radiata</i>	70	Ret	Ret	Ret	Ret	Out DS
108	<i>Eucalyptus obliqua</i>	110	Ret	Ret	Ret	Ret	Out DS
109	<i>Eucalyptus radiata</i>	54	Ret	Ret	Ret	Ret	Out DS
110	<i>Eucalyptus obliqua</i>	69	Ret	Ret	Ret	Ret	Out DS
111	<i>Eucalyptus obliqua</i>	63	Ret	Ret	Ret	Ret	Out DS
112	<i>Eucalyptus macrorhyncha</i>	75	Ret	Ret	Ret	Ret	Out DS
113	<i>Eucalyptus radiata</i>	79	Ret	Ret	Ret	Ret	Out DS
114	<i>Eucalyptus radiata</i>	145	Ret	Ret	Ret	Ret	Out DS
115	Dead	370	Ret	Ret	Ret	Ret	Out DS. L.O.T.
116	<i>Eucalyptus radiata</i>	315	Ret	Ret	Ret	Ret	Out DS. L.O.T.
117	<i>Eucalyptus radiata</i>	320	Ret	Ret	Ret	Ret	Out DS L.O.T.
118	Dead	237	Ret	Ret	Ret	Ret	Out DS
119	<i>Eucalyptus radiata</i>	300	Ret	Ret	Ret	Ret	Out DS. L.O.T.
120	<i>Eucalyptus obliqua</i>	415	Ret	Ret	Ret	Ret	Out DS. L.O.T.
121	Dead	148	Ret	Ret	Ret	Ret	Out DS
122	<i>Eucalyptus obliqua</i>	250	Ret	Ret	Ret	Ret	Out DS
123	<i>Eucalyptus radiata</i>	104	Ret	Ret	Ret	Ret	Out DS
124	<i>Eucalyptus radiata</i>	157	Ret	Ret	Ret	Ret	Out DS
125	<i>Eucalyptus obliqua</i>	310	Ret	Ret	Ret	Ret	Out DS. L.O.T.
126	<i>Eucalyptus obliqua</i>	370	Ret	Ret	Ret	Ret	Out DS. L.O.T.
127	<i>Eucalyptus radiata</i>	85	Ret	Ret	Ret	Ret	Out DS
128	<i>Eucalyptus obliqua</i>	350	Ret	Ret	Ret	Ret	Out DS. L.O.T. Nice

No.	Species	Circ. cm	R./Ret 2021	R./Ret 2023	R./Ret 2024	R./Ret 2025	Notes & DS Zone present proposal
129	<i>Eucalyptus radiata</i>	320	Ret	Ret	Ret	Ret	Out DS L.O.T. Date Prepared: 10 April 2026
130	<i>Eucalyptus radiata</i>	85	Ret	Ret	Ret	Ret	Out DS
131	<i>Eucalyptus radiata</i>	275	Ret	Ret	Ret	Ret	Out DS
132	<i>Eucalyptus obliqua</i>	285	Ret	Ret	Ret	Ret	Out DS L.O.T.
133	<i>Eucalyptus obliqua</i>	173	R	Ret	Ret	Ret	Out DS
134	<i>Eucalyptus obliqua</i>	275	R	Ret	Ret	Ret	Out DS
135	<i>Eucalyptus radiata</i>	132	Ret	Ret	Ret	Ret	Out DS
136	<i>Eucalyptus radiata</i>	170	Ret	Ret	Ret	Ret	Out DS
137	<i>Eucalyptus radiata</i>	205	Ret	Ret	Ret	Ret	Out DS
138	<i>Eucalyptus obliqua</i>	280	R	Ret	Ret	Ret	Out DS
139	<i>Eucalyptus radiata</i>	240	R	Ret	Ret	Ret	Out DS
140	Dead	215	Ret	Ret	Ret	Ret	Out DS
141	<i>Eucalyptus radiata</i>	350	Ret	Ret	Ret	Ret	Out DS. L.O.T.
142	<i>Eucalyptus obliqua</i>	202	R	Ret	Ret	Ret	Assessed impact
143	<i>Eucalyptus sieberi</i>	450	R	R	R	R	DS. V.L.O.T. Poor health
144	<i>Eucalyptus radiata</i>	75	Ret	Ret	Ret	Ret	Assessed impact
145	<i>Eucalyptus obliqua</i>	283	Ret	Ret	Ret	Ret	ND. Assessed for impact
146	<i>Eucalyptus obliqua</i>	298	Ret	Ret	Ret	Ret	ND. Assessed for impact
173 Trees total			60 Ret 113 R	129 Ret 42 R 2 N/A fallen	127 Ret 46 R 2 n/a fallen	132 Ret 41 R 2 n/a fallen	Increased BAL, changed dwelling design, PBS, altered DS footprint therefore reduced vegetation impact.

DS = Defendable Space of 32m (N, E & S), 39m W from proposed dwelling.
 PBS = Personal Bushfire Shelter
 Out DS = Trees now out of the Defendable Space with altered proposal
 ND = Neighbouring Property.
 CS = Canopy Separation

NVR & Biodiversity Assessment Report


ADVERTISED MATERIAL
Planning Application 249251
Date Prepared: 10 April 2025

This copied document is made available for the purpose of the planning process as set out in the Planning and Environment Act 1987. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.

61 LIVIO DRIVE, GEMBROOK, 3783



Report prepared by
Tabitha K Barclay *BaAppSc (hort),*
ISA member, TRAQ accredited,
Accredited Native Vegetation Assessor

& Coral Jeffs *BaAppSc (hort),*
Accredited Native Vegetation Assessor

December 2025

Healesville Plants

Mobile: 0438 731 214
healesvilleplants@gmail.com

ABN 189 89 339 382

Contents

1.0	Introduction.....	
2.0	Site Description.....	2
3.0	Vegetation Assessment.....	7
	NVR report	
	Vegetation Quality Field Assessment – Habitat hectare -adjustment	
4.0	Recommendations & Conclusions.....	47
5.0	References.....	47
6.0	Appendices.....	48

Introduction

1.0

This report has been prepared by Tabitha Barclay (*BaAppSc (hort)*) and Coral Jeffs (*BaAppSc (hort)*) under instructions by the owners Amy Volta and Martin Malempre of 61 Livio Dve, Gembrook, located in the Cardinia Shire Council, to be read as a response to Avoid, minimise and offset guidelines in conjunction with the NVR & arboricultural report, where an on-site assessment of the trees and other native vegetation is required to ascertain the impact of a proposed new dwelling, shed with associated accessways, effluent field and the designated Defendable Space (DS) on an area that is mainly cleared of understorey plants, but has many large and very large canopy trees and tree removal has been necessary to meet defendable space requirements detailed in the BMP/BMS.

This application was originally submitted to Council by the owners in July 2021 (*application #T210451*) with a RFI (Response for Further Information) requested whereby a tree assessment was required for impact from the proposed development and vegetation assessed for DS (Defendable Space) to comply with the BMO (Bushfire Management Overlay). The 12.5 BAL (Bushfire Attack Level) design at that time encompassed many trees that would have required removal of 113 trees in a 75m DS. The dwelling design has been altered three more times since the original proposal and now this current development proposal has further minimised tree removal to 41 trees in a 32m (N, E, S) & 39m (W) defendable space area with a BAL 40 construction, and a habitat hectare assessment has been undertaken to more accurately reflect the condition of the vegetation proposed for removal and therefore the loss and offset required.

Site description

2.0

Tabitha Barclay and Coral Jeffs undertook the original tree assessment in September and December 2021, this assessment was undertaken in September 2025 checking data from December 2024. Inspection was made at ground level and observations, recommendations and conclusions reached in light of our experience.

Council Property Number: 2496800500
SPI (Standard Parcel Identifier): 1\TP100357
Lot and Plan Number: Lot 1 TP100357
Directory Reference: Melway 299 E8

The ~8.1-acre property is located on Livio Drive, Gembrook, the owners have owned the property for ~12 months. It is ~250m ASL with a westerly aspect and currently consists of some cleared bushland with existing driveways and tracks, open shed structures, set amongst bushland areas to the west, leading to Shepherds Creek. This property is in a well-established area, with rural residential and small farm properties in Gembrook. There is a mix of smaller and larger properties in the immediate surrounds, with fragmented treed areas.



Map 1. Aerial image (Source Vicplan 2025)



Map 1a). Close up aerial image of property (Source Cardinia Pozi 2025)




ADVERTISED MATERIAL
Planning Application: T210451
Date Prepared: 10 April 2026

This copy of the document is made available for the purpose of the planning process as set out in the Planning and Environment Act 1987. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will not use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.

Map 1b). Close up aerial image of proposed house site (Source Cardinia Pozi 2025)

The site is zoned Rural Conservation – Schedule 1 (RCZ1) with the planning overlays; Bushfire Management Overlay (BMO) and Environmental Significance Overlay – Schedule 1 (ESO1). The original indigenous vegetation expected is Highlands Southern Fall EVC 29 – Damp Forest with the predominant tree species being *Eucalyptus cypellocarpa*, *E. obliqua* & *E. globulus* ssp. *bicostata*. The Cardinia vegetation zoning is Zone 1, Tall Wet Forest where *Allocasuarina littoralis*, *Eucalyptus baxteri*, *E. cypellocarpa*, *E. obliqua*, *E. radiata* and *E. viminalis* ssp. *viminalis* are expected. Some of the canopy trees onsite are consistent with this zoning with the predominant species in the development area being *E. obliqua*, *E. sieberi* & *E. radiata*.

There is a diverse array of remnant indigenous lower storey species present on the property it has long been cleared for fire protection. There are quite extensive remnant bushland areas beyond the cleared area with good biodiversity. There are quite well-established formed driveways leading to the proposed development and tracks for maintenance of the Conservation Zone.



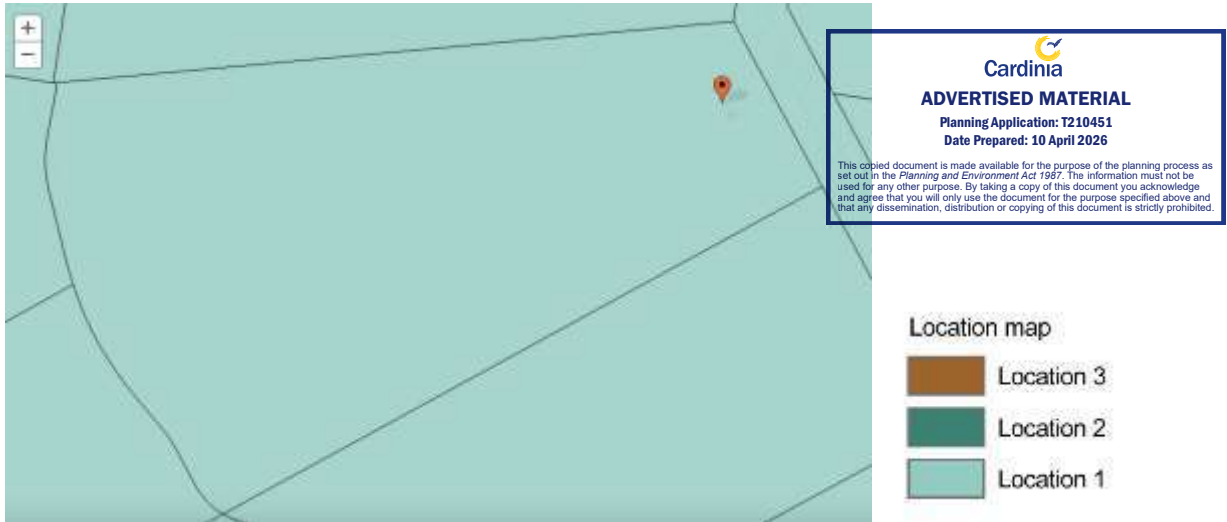
Map 2. Contours (Source Mapshare 2021), property ~240-260m ASL



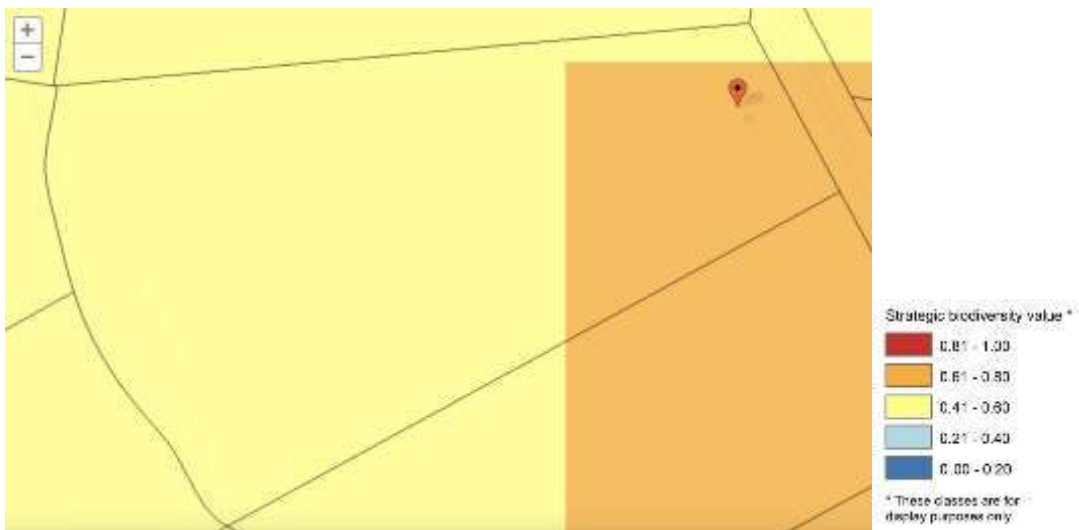
Map 3. Location (Source Vicplan 2025)


Cardina
ADVERTISED MATERIAL
 Planning Application: T210451
 Date Prepared: 10 April 2026

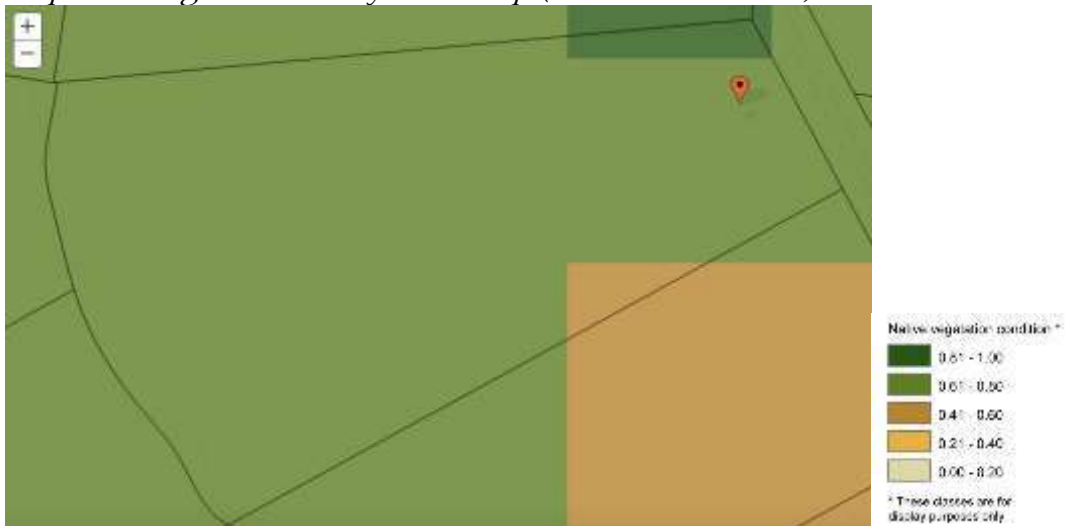
This copied document is made available for the purpose of the planning process as set out in the *Planning and Environment Act 1987*. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.



Map 4. Location Map (Source NVIM 2024)

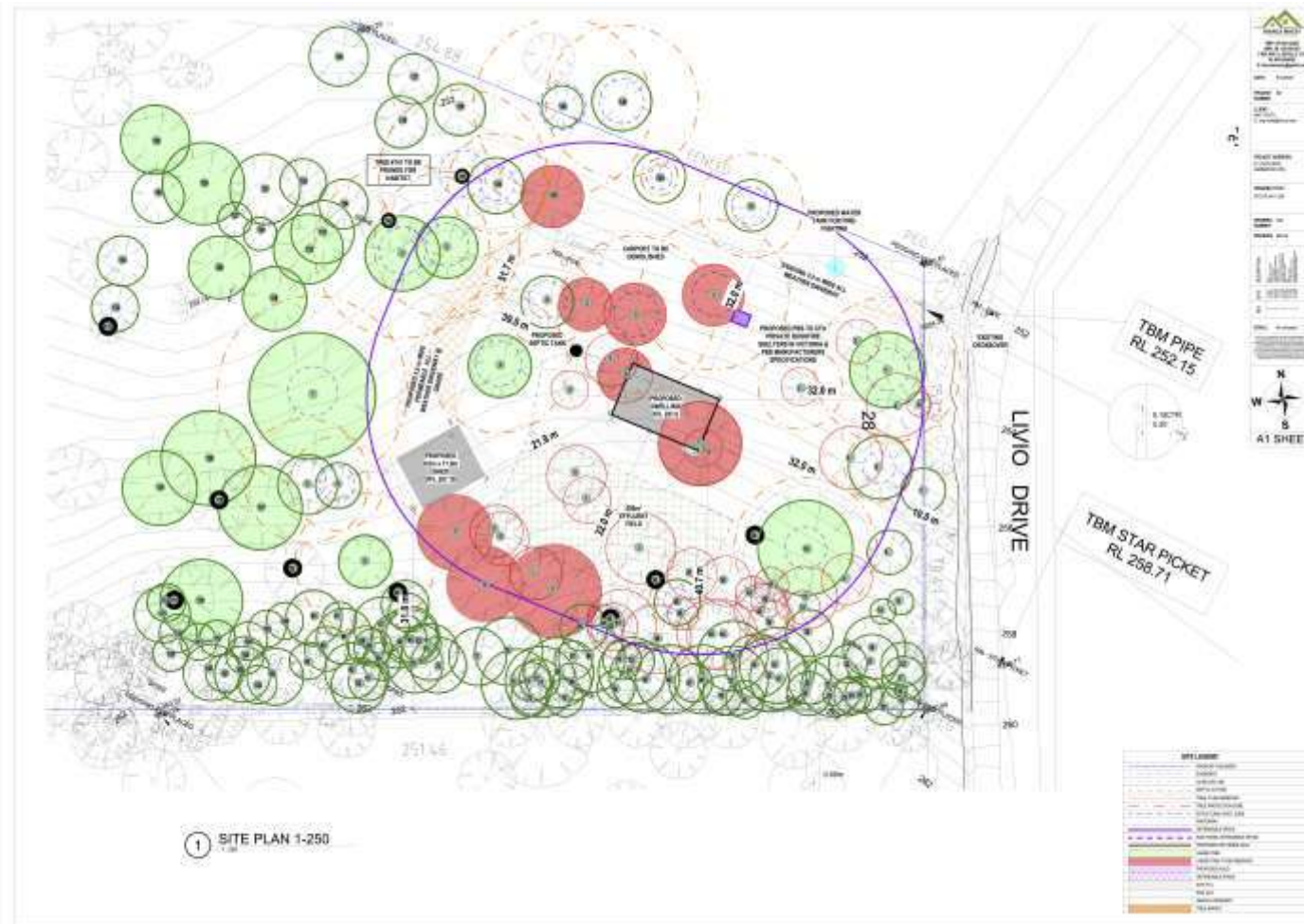


Map 5. Strategic Biodiversity value Map (Source NVIM 2024)



Map 6. Native Vegetation condition Map (Source NVIM 2024)

This copied document is made available for the purpose of the planning process as set out in the *Planning and Environment Act 1987*. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.



Map 7. Site map showing proposal (#5)- Tree removal, development BAL40 construction, PBS, house, shed, and defendable space

Table 1. Tree List assessed NVR Offset within remnant LOT/VLOT plotted, whole of defensible space area considered lost and subject to offset

No.	Species	Circ. cm	Notes & removal reason
C	<i>Eucalyptus obliqua</i> (Messmate)	327	DS L.O.T
D	<i>Eucalyptus obliqua</i>	324	DS PBS L.O.T
E	<i>Eucalyptus sieberi</i> (Silvertop Ash)	270	Dwelling
F	<i>Eucalyptus radiata</i>	298	Dwelling. L.O.T
G	<i>Eucalyptus radiata</i>	245	Dwelling
H	<i>Eucalyptus obliqua</i>	251	Effluent Field
I	<i>Eucalyptus obliqua</i>	135	Effluent Field
J	<i>Eucalyptus radiata</i>	223	Effluent Field
K	<i>Eucalyptus radiata</i>	298	DS L.O.T
L	<i>Eucalyptus radiata</i>	198	DS
M	<i>Eucalyptus obliqua</i>	423	DS L.O.T
N	<i>Eucalyptus radiata</i>	198	DS
O	<i>Eucalyptus obliqua</i>	129	DS
P	<i>Eucalyptus obliqua</i>	330	DS L.O.T
X	<i>Eucalyptus sieberi</i>	308	PBS DS L.O.T
Y	<i>Eucalyptus radiata</i>	314	Dwelling. L.O.T
Z	<i>Eucalyptus radiata</i>	100	Dwelling
2	<i>Eucalyptus obliqua</i>	226	DS
3	<i>Eucalyptus radiata</i>	173	DS PBS
4	<i>Eucalyptus radiata</i>	280	DS
4A	<i>Eucalyptus radiata</i>	60	DS
6	<i>Eucalyptus obliqua</i>	198	DS
9	<i>Eucalyptus radiata</i>	175	DS
11	<i>Eucalyptus obliqua</i>	145	DS
12	<i>Eucalyptus obliqua</i>	75	DS
39	<i>Eucalyptus obliqua</i>	88	DS
40	<i>Acacia dealbata</i>	85	DS
41	<i>Eucalyptus radiata</i>	63	DS
42	<i>Eucalyptus macrorhyncha</i>	66	DS
43	<i>Eucalyptus radiata</i>	138	DS
44	<i>Eucalyptus sieberi</i>	129	DS
45	<i>Eucalyptus obliqua</i>	160	DS
54	<i>Eucalyptus radiata</i>	116	DS
55	<i>Eucalyptus macrorhyncha</i>	70	DS
57	<i>Eucalyptus macrorhyncha</i>	75	DS
58	<i>Eucalyptus obliqua</i>	88	DS
61	<i>Eucalyptus macrorhyncha</i>	50	DS



ADVERTISED MATERIAL

Planning Application: T210451

Date Prepared: 10 April 2026

This copied document is made available for the purpose of the planning process as set out in the Planning and Environment Act 1987. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.

No.	Species	Circ. cm	Notes & removal reason
62	Dead	157	DS
63	<i>Acacia dealbata</i>	85	DS
64	<i>Eucalyptus macrorhyncha</i>	45	DS
143	<i>Eucalyptus sieberi</i>	450	V.L.O.T. DS PBS


ADVERTISED MATERIAL
 Planning Application: T210451
 Date Prepared: 10 April 2026

This copied document is made available for the purpose of the planning process as set out in the *Planning and Environment Act 1987*. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.

Legend

Circ cm = Circumference
 DBH = Diameter at Breast Height, measured in centimetres,
 L.O.T. = Large Old Tree, in EVC
 29 = 90cm 283cm (Circ.)
 V.L.O.T. = Very Large Tree 135cm 424cm (Circ.)
 DS = Defendable Space
 PBS = Personal Bushfire Shelter

Native Vegetation Removal Report

NVRR ID: 311_20251117_DZ6

This report provides information to support an application to remove, destroy or lop native vegetation in accordance with the *Guidelines for the removal, destruction or lopping of native vegetation* (the Guidelines). This report is **not an assessment by DEECA** of the proposed native vegetation removal. Offset requirements have been calculated using modelled condition scores.

Report details

Date created: 17/11/2025

Local Government Area: CARDINIA SHIRE

Registered Aboriginal Party: Wurundjeri

Coordinates: 145.57439, -37.94543

Address: 61 LIVIO DRIVE GEMBROOK 3783

Regulator Notes

Removal polygons are located:

Summary of native vegetation to be removed

Assessment pathway	Intermediate Assessment Pathway		
Location category	Location 1 The native vegetation extent map indicates that this area is not typically characterised as supporting native vegetation. It does not meet the criteria to be classified as Location Category 2 or 3. The removal of less than 0.5 hectares of native vegetation in this area will not require a Species Offset.		
Total extent including past and proposed removal (ha) <i>Includes endangered EVCs (ha): 0</i>	0.497	<i>Extent of past removal (ha)</i>	0
		<i>Extent of proposed removal - Patches (ha)</i>	0.497
		<i>Extent of proposed removal - Scattered Trees (ha)</i>	0.000
No. Large Trees proposed to be removed	9	<i>No. Large Patch Trees</i>	9
		<i>No. Large Scattered Trees</i>	0
No. Small Scattered Trees	0		

Offset requirements if approval is granted

Any approval granted will include a condition to secure an offset, before the removal of native vegetation, that meets the following requirements:

General Offset amount ¹	0.468 General Habitat Units
Minimum strategic biodiversity value score ²	0.523
Large Trees	9
Vicinity	Melbourne Water CMA or CARDINIA SHIRE LGA

NB: values within tables in this document may not add to the totals shown above due to rounding

The availability of third-party offset credits can be checked using the Native Vegetation Credit Register (NVCR) Search Tool - <https://nvcr.delwp.vic.gov.au>



ADVERTISED MATERIAL

Planning Application: T210451
Date Prepared: 10 April 2026

This copied document is made available for the purpose of the planning process as set out in the *Planning and Environment Act 1987*. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.

1. The General Offset amount required is the sum of all General Habitat Units in Appendix 1.

2. Minimum strategic biodiversity value score is 80 per cent of the weighted average score across habitat zones where a General Offset is required.

Application requirements

Applications to remove, destroy or lop native vegetation must include all the below information. If an appropriate response has not been provided the application is not complete.

Application Requirement 1 - Native vegetation removal information

If the native vegetation removal is mapped correctly, the information presented in this Native Vegetation Removal Report addresses Application Requirement 1.

Application Requirement 2 - Topographical and land information

This statement describes the topographical and land features in the vicinity of the proposed works, including the location and extent of any ridges, hilltops, wetlands and waterways, slopes of more than 20% gradient, low-lying areas, saline discharge areas or areas of erosion.

Topographical and Land information

Council Property Number: 2496800500

SPI (Standard Parcel Identifier): 1\TP100357

Lot and Plan Number: Lot 1 TP100357

Directory Reference: Melway 299 E8

The ~8.1-acre property is located on Livio Drive, Gembrook, the owners have owned the property for ~5 years. It is ~250m ASL with a westerly aspect and currently consists of some cleared bushland with existing driveways and tracks, open shed structures, set amongst bushland areas to the west, leading to Shepherds Creek. This property is in a well - established area, with rural residential and small farm properties in Gembrook, the properties in the immediate area are in keeping with this modest proposal which is in keeping with the local area and streetscape. There is a mix of smaller and larger properties in the immediate surrounds, with fragmented treed areas.

Application Requirement 3 - Photographs of the native vegetation to be removed

Application Requirement 3 is not addressed in this Native Vegetation Removal Report. All applications must include recent, timestamped photos of each Patch, Large Patch Tree and Scattered Tree which has been mapped in this report.

Application Requirement 4 - Past removal

If past removal has been considered correctly, the information presented in this Native Vegetation Removal Report addresses Application Requirement 4.

Application Requirement 5 - Avoid and minimise statement

This statement describes what has been done to avoid and minimise impacts on native vegetation and associated biodiversity values.

Vegetation removal could not be avoided on this site, due to the defendable space area and vegetation management requirements. However, the following strategies have been implemented to minimize vegetation removal and reduce the number of trees requiring removal to accommodate for the development proposal.

This application was originally submitted to Council by the owners in July 2021 (application #T210451) with a 12.5 BAL (Bushfire Attack Level) design at that time encompassed many trees that would have required removal (140/170 trees) in a 75m DS. Various changes occurred with different versions (2022-23) until this proposal has been put forward after lengthy discussions with council and DEECA.

Site challenges

- the Large Old trees located equidistant from one another and had large spreading canopies and large TPZ's. As many were in the West area of the block, these were avoided by moving the dwelling forward to its current proposed location. This avoided the removal of 10 VLOT/LOTS (and an additional 3 MLOTs . By proposing the 32 m defendable space additional LOT/VLOTS are this also meant that another 2 LOTs, 1 VLOT & 3 MLOTs could also be retained.
- the installation of the Personal Bushfire Shelter has required that Trees D, X & 3 also be removed as they will be within fall strike of the shelter. D & X are LOTs.
- the poor structure of some trees making it not possible to retain them as stand-alone trees (structurally poor or not suitable to safely retain as standalone trees) due to the BMO requirements for canopy separation.
- The location of the dwelling towards the eastern boundary and front of the property (east) to retain most VLOT/LOT's with longest ULE and best structure and best location.
- Development proposal for dwelling, driveway extension and shed is consolidated within the 32m DS which minimises earthworks (cut & fill) as built across the contours.
- Retaining most LOT's and trees with longest ULE and removing smaller, younger clumps of trees with poor structure in preference.
- Pruning trees for habitat and less than 1/3 canopy to retain trees.
- Siting of works within modified area of site with least biodiversity and lower condition score (adjusted) Loss area reduced below 0.5Ha (avoiding the detailed pathway), achieving an intermediate pathway. This proposal has further minimized by This current proposal has further reduced the dwelling footprint, relocated the shed, extended the driveway, reduced earthworks, increased the BAL construction of the dwelling to BAL40, installed a Personal Bushfire shelter and reduced the defendable spaces area but increased the compliance of this 32m N, E & S and 39m to the W..

Summary Tree Loss - minimisation journey
 2022: A, C, D, F, P, Y & 143 (LOTS/VLOTS) =7 LOTs and 113 trees
 2023: C, F, K, M, P, Y & 143 (LOTS/VLOTS) =7 LOTs and 42 trees
 2025: C, D, F, K, M, P, X, Y & 143 (LOTS/VLOTS) =9 LOTs and 38 trees
 No further opportunity exists to minimise vegetation removal/loss

Application Requirement 6 - Property Vegetation Plan

This requirement only applies if an approved Property Vegetation Plan (PVP) applies to the property
 Does a PVP apply to the proposal?

Yes, the PVP will be included in the application.

Application Requirement 7 - Defendable space statement

Where the removal of native vegetation is to create defendable space, this statement:

- Describes the bushfire threat; and
- Describes how other bushfire risk mitigation measures were considered to reduce the amount of native vegetation proposed for removal (this can also be part of the avoid and minimise statement).

This statement is not required if, If the proposed defendable space is within the Bushfire Management Overlay (BMO), and in accordance with the 'Exemption to create defendable space for a dwelling under Clause 44.06 of local planning schemes' in Clause 52.12-5.

The bushfire risk of this area is considered high.
 Many mitigation measures have been applied to reduce this threat.



PBS installed
Construction to BAL 40
Watertanks
CFA compliant driveway off a made road
Compliant defendable space
There will be 38 trees removed for Defendable Space for this proposal. Understorey in this area is already managed for fire safety purposes, and will continue to be modified to meet BMO & BMP vegetation criteria.

Application Requirement 8 - Native Vegetation Precinct Plan

This requirement is only applicable if you are removing native vegetation from within an area covered by Native Vegetation Precinct Plan (NVPP), and the proposed removal is not identified as 'to be removed' within the NVPP.

Does an NVPP apply to the proposal?

No

Application Requirement 9 - Offset statement

This statement demonstrates that an offset is available and describes how the required offset will be secured. The Applicant's Guide provides information relating to this requirement.

A third party vegetation credit will be purchased to satisfy any offset amount greater than what amount can be secured within a first party offset onsite, calculated once the planning process has progressed. Credits are available and the owners are aware of the cost.

A first party offset is an option on this site due to an area being available at rear of the property being away from the required 150m proximity of neighbouring dwellings and the proposed dwelling on the subject property. The offset area has a much higher quality vegetation which will be contained within a Conservation Zone, it does also contain a minimum of 8 L.O.T's and 1 V.L.O.T (preliminary inspection, others are also present) proposed for permanent protection after the loss of the LOT/LOTs in the proposed development area. The extended loss (deficit once first party avenues have been explored and secured) will need to be achieved with a third-party OTC vegetation credit will be sourced to satisfy the offset amount once the planning process has progressed. Trust for Nature have been contacted with regards to covenant possibilities.



ADVERTISED MATERIAL

Planning Application: T210451
Date Prepared: 10 April 2026

This copied document is made available for the purpose of the planning process as set out in the *Planning and Environment Act 1987*. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.



Next steps

Applications to remove, destroy or lop native vegetation must address all the application requirements specified in the Guidelines. If you wish to remove the mapped native vegetation you are required to apply for approval from the responsible authority (e.g. local Council). This Native vegetation removal report must be submitted with your application and meets most of the application requirements. The following requirements need to be addressed, as applicable.

Application Requirement 3 - Photographs of the native vegetation to be removed

Recent, dated photographs of the native vegetation to be removed **must be provided** with the application. All photographs must be clear, show whether the vegetation is a Patch of native vegetation, Patch Tree or Scattered Tree, and identify any Large Trees. If the area of native vegetation to be removed is large, provide photos that are indicative of the native vegetation.

Ensure photographs are attached to the application. If appropriate photographs have not been provided the application is not complete.

Application Requirement 6 - Property Vegetation Plan

If a PVP is applicable, it must be provided with the application.



ADVERTISED MATERIAL
Planning Application: T210451
Date Prepared: 10 April 2026

This copied document is made available for the purpose of the planning process as set out in the Planning and Environment Act 1987. This information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.

Appendix 1: Description of native vegetation to be removed

General Habitat Units for each zone (Patch, Scattered Tree or Patch Tree) are calculated by the following equation in accordance with the Guidelines

General Habitat Units = extent without overlap x condition score x general landscape factor x 1.5, where the general landscape factor = 0.5 + (strategic biodiversity value score/2)

The General Offset amount required is the sum of all General Habitat Units per zone.

Native vegetation to be removed

Information provided by or on behalf of the applicant			Information calculated by NVR Map							
Zone	Type	DBH (cm)	EVC code (modelled)	Bioregional conservation status	Large Tree(s)	Condition score (modelled)	Polygon extent (ha)	Extent without overlap (ha)	SBV score	General Habitat Units
1	Patch	-	HSF_0029	Least Concern	9	0.759	0.497	0.497	0.654	0.468

Page 7



ADVERTISED MATERIAL

Planning Application: T210451
Date Prepared: 10 April 2026



This copied document is made available for the purpose of the planning process as set out in the *Planning and Environment Act 1987*. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.



Appendix 2: Images of mapped native vegetation

1. Property in context



-  Proposed Removal
-  Property Boundaries





Cardinia
ADVERTISED MATERIAL
Planning Application: T210451
Date Prepared: 10 April 2026

This copied document is made available for the purpose of the planning process as set out in the *Planning and Environment Act 1987*. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.



2. Aerial photograph showing mapped native vegetation



 Proposed Removal



45 m


Cardina
ADVERTISED MATERIAL
Planning Application: T210451
Date Prepared: 10 April 2026

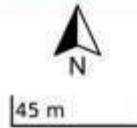
This copied document is made available for the purpose of the planning process as set out in the *Planning and Environment Act 1987*. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.



3. Location Risk Map



-  Proposed Removal
-  Location 1
-  Location 2
-  Location 3

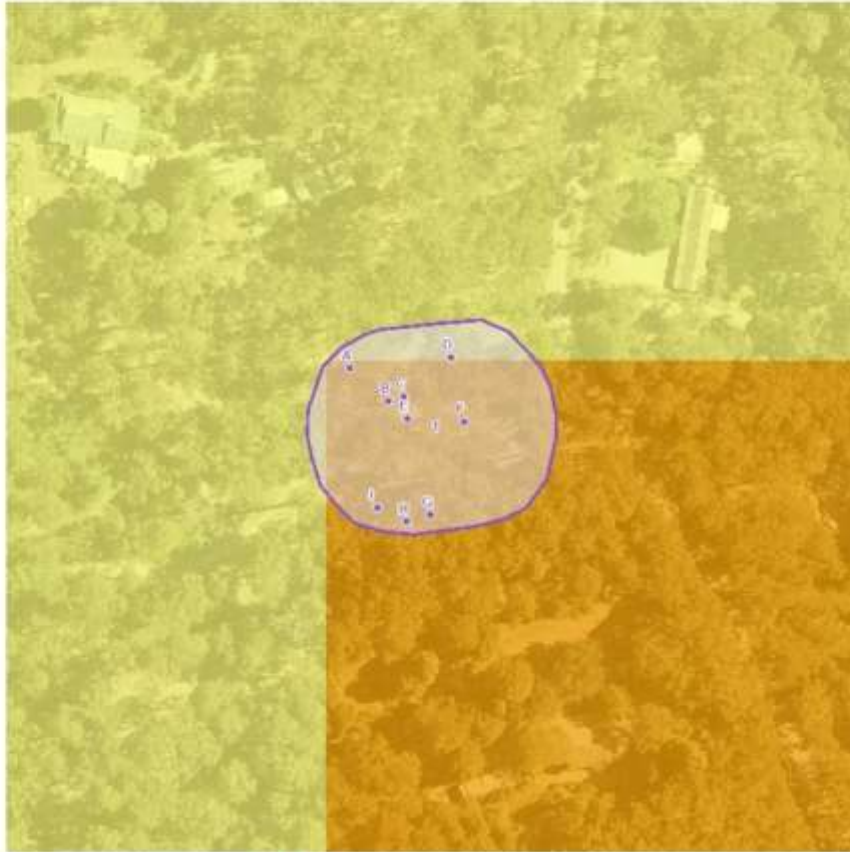



Cardina
ADVERTISED MATERIAL
Planning Application: T210451
Date Prepared: 10 April 2026

This copied document is made available for the purpose of the planning process as set out in the *Planning and Environment Act 1987*. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.



4. Strategic Biodiversity Value Score Map



-  Proposed Removal
-  0.81 - 1.00
-  0.61 - 0.80
-  0.41 - 0.60
-  0.21 - 0.40
-  0.00 - 0.20

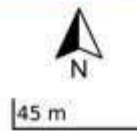
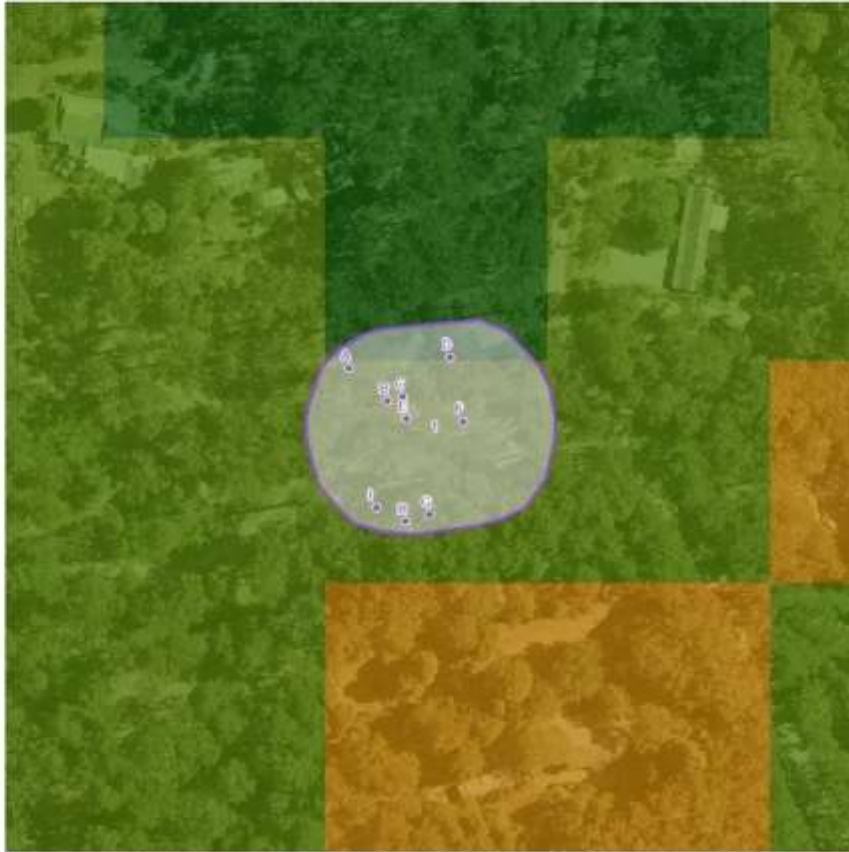



Cardina
ADVERTISED MATERIAL
Planning Application: T210451
Date Prepared: 10 April 2026

This copied document is made available for the purpose of the planning process as set out in the *Planning and Environment Act 1987*. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.



5. Condition Score Map




Cardina
ADVERTISED MATERIAL
Planning Application: T210451
Date Prepared: 10 April 2026

This copied document is made available for the purpose of the planning process as set out in the *Planning and Environment Act 1987*. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.



6. Endangered EVCs

Not Applicable

© The State of Victoria Department of Energy, Environment and Climate Action 2025



This work is licensed under a Creative Commons Attribution 4.0 International licence. You are free to re-use the work under that licence, on the condition that you credit the State of Victoria as author. The licence does not apply to any images, photographs or branding, including the Victorian Coat of Arms, the Victorian Government logo and the Department of Energy, Environment and Climate Change (DEECA) logo. To view a copy of this licence, visit <http://creativecommons.org/licenses/by/4.0/>

Disclaimer

This publication may be of assistance to you but the State of Victoria and its employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss or other consequence which may arise from you relying on any information in this publication.



ADVERTISED MATERIAL
Planning Application: T210451
Date Prepared: 10 April 2026

This copied document is made available for the purpose of the planning process as set out in the *Planning and Environment Act 1987*. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.

Loss

Calculation from NVR report 2024 (refer page 9)

Remnant proposed for loss due to tree removal and continued modification to meet Defendable space criteria

Extent = 0.497 Ha

Modelled Condition score = 0.759

GHU = 0.468 loss



Appendix 1: Description of native vegetation to be removed

General Habitat Units for each zone (Patch, Scattered Tree or Patch Tree) are calculated by the following equation in accordance with the Guidelines

General Habitat Units = extent without overlap x condition score x general landscape factor x 1.5, where the general landscape factor = 0.5 + (strategic biodiversity value score/2)

The General Offset amount required is the sum of all General Habitat Units per zone.

Native vegetation to be removed

Information provided by or on behalf of the applicant			Information calculated by NVR Map							
Zone	Type	DBH (cm)	EVC code (modelled)	Bioregional conservation status	Large Tree(s)	Condition score (modelled)	Polygon extent (ha)	Extent without overlap (ha)	SBV score	General Habitat Units
1	Patch	-	HSF_0029	Least Concern	9	0.759	0.497	0.497	0.654	0.468

GHU = 0.497 extent x 0.759 modelled condition score x 0.827 (general landscape factor) x 1.5 = 0.4679 rounded to ~ 0.468

$$glf \text{ (general landscape factor)} = (0.5 + 0.654/2) \times 1.5 = 1.24$$

However, the modelled condition score is much too high in this already modified area of the site. As discussed with Cardinia council and DEECA at the site visit, it would be more accurate to undertake a Habitat Hectare assessment to determine the actual condition score of vegetation – refer page 23.

This Vegetation Quality Field Assessment of the subject area of the site, being the defendable space determined the condition score to be 0.44 as the Habitat score.

This value was substituted back into the calculations (refer below);

$$GHU \text{ (adjusted)} = 0.497 \text{ extent} \times 0.44 \text{ calculated condition score} \times 1.24 \text{ glf} = 0.271 \text{ GHU}$$

Photos of defendable space and house site, vegetation to be removed (lost)
NB; Additional photos are located in the Arboricultural report



Facing north from house site



Facing east from house site



Facing south from house site.



Facing west from house site


ADVERTISED MATERIAL
Planning Application: T210451
Date Prepared: 10 April 2026

This copied document is made available for the purpose of the planning process as set out in the Planning and Environment Act 1967. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.



Facing east and south to house site

This copied document is made available for the purpose of public access as set out in the Planning and Environment Act 1987. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.

Vegetation Quality Field Assessment Sheet

Version 1.3 - October 2004

Site Name/No. 61 hivio Dre Location Gembrooke
 Assessor(s) TKB / CJ Map Name/No. DS 0.47Ha AMG / MGA Cardinia
 Tenure Private EVC 29 Nicic 3.3Ha Bioregion HSE

'Site Condition Score'

Large Trees 90% 20/ha Score ↓ 9

Category & Description	% Canopy Health*		
	> 70%	30-70%	< 30%
None present	0	0	0
> 0 to 20% of the benchmark number of large trees/ha	3	2	1
> 20% to 40% of the benchmark number of large trees/ha	4	3	2
> 40% to 70% of the benchmark number of large trees/ha	6	5	4
> 70% to 100% of the benchmark number of large trees/ha	8	7	6
≥ the benchmark number of large trees/ha	10	<u>9</u>	8

Large trees are defined by diameter at breast height (dbh) - see EVC benchmark.
 * Estimate proportion of an expected healthy canopy cover that is present (i.e. not missing due to tree death or decline, or mistletoe infestation).

Tree Canopy Cover 40% Score ↓ 2

Category & Description	% Canopy Health*		
	> 70%	30-70%	< 30%
< 10% of benchmark cover	0	0	0
< 50% or > 150% of benchmark cover	3	<u>2</u>	1
≥ 50% or ≤ 150% of benchmark cover	5	4	3

Tree canopy is defined as those canopy tree species reaching ≥ 80% of mature height - see EVC benchmark description.
 * Estimate proportion of an expected healthy canopy cover that is present (i.e. not missing due to tree death or decline, or mistletoe infestation).

Lack of Weeds Out of EVC Score ↓ 9

Category & Description	'High threat' weeds*		
	None	≤ 50%	> 50%
> 50% cover of weeds	4	2	0
25 - 50% cover of weeds	7	6	4
5 - 25% cover of weeds	11	<u>9</u>	7
< 5% cover of weeds**	15	13	11

* proportion of weed cover due to 'High threat' weeds - see EVC benchmark for guide.
 'High threat' weed species are defined as those introduced species (including non-indigenous 'ruthies') with the ability to out-compete and substantially reduce one or more indigenous life forms in the longer term assuming on-going current site characteristics and disturbance regime.
 The EVC benchmark lists typical weed species for the EVC in the bioregion and provides an estimate of their 'invasiveness' and 'impact'. In general, those weed species considered to have a 'high impact' are considered 'High threat' regardless of their invasiveness.
 ** if total weed cover is negligible (<1%) and high threat weed species are present then score '13'.

Understorey Life forms

LF Code from EVC benchmark	# spp observed / Benchmark spp.	% cover observed / Benchmark % cover	Present (✓)	Modified (✓)
IT	4/4	10/5	✓	✓
T	3/4	5/20	✓	✓
MS	4/7	1/25		
SS	15/1	5/1	✓	
MH	0/4	0/5		
SH	9/2	5/1	✓	
ITG	2/2	5/5	✓	
LNG	0/1	0/10		
MTE	4/1	1/1	✓	
MNG	3/1	1/1	✓	
GF	4/3	2/15	✓	✓
TRF	2/2	0.5/10	✓	✓
SC	1/3	1/5	✓	✓
Bh	-/ha	1/20		
	1	1	10	5

For life forms with benchmark cover of < 10%, considered 'present' if:
 • any specimens are observed.
 For life forms with benchmark cover of ≥ 10%, considered 'present' if:
 • the life form occupies at least 10% of benchmark cover.
 For life forms with benchmark cover of < 10%, then considered substantially 'modified' if the life form has either:
 • < 50% of the benchmark species diversity; or
 • no reproductively-mature specimens are observed.
 For life forms with benchmark cover of ≥ 10%, then considered substantially 'modified' if the life form has either:
 • < 50% of benchmark cover; or
 • < 50% of benchmark species diversity; or
 • ≥ 50% of benchmark cover due largely to immature canopy specimens but the cover of reproductively-mature specimens is < 10% of the benchmark cover.

Understorey Score

Category & Description	Score
All strata and Life forms effectively absent	0
Up to 50% of life forms present	5
≥ 50% to 90% of Life forms present	10
• of those present, ≥ 50% substantially modified	15
• of those present, < 50% substantially modified	15
≥ 90% of Life forms present	15
• of those present, ≥ 50% substantially modified	20
• of those present, < 50% substantially modified	25
• of those present, none substantially modified	25

This copied document is made available for the purpose of the planning process as set out in the Planning and Environment Act 1987. It is not to be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.

Vegetation Quality Field Assessment Sheet

Version 1.3 - October 2004

Recruitment *Continuous* Score \downarrow 3

Category & Description		High diversity**	Low diversity**
No evidence of a recruitment 'cohort'	within EVC not driven by episodic events	0	0
	within EVC driven by episodic events [^]	0	0
Evidence of at least one recruitment 'cohort' in at least one life-form	clear evidence of appropriate episodic event	0	0
	no clear evidence of appropriate episodic event	5	5
	proportion of native woody species present that have adequate recruitment [^]	< 30% -	1
		30 - 70%	6
		≥ 70%	10

* 'cohort' refers to a group of woody plants established in a single episode (can include suppressed canopy species individuals).
[^] refer to EVC benchmark for clarification.
[^] treat multiple eucalypt canopy species as one species.
^{**} high diversity defined as ≥ 50% of benchmark woody species diversity.

Species Recruitment

Woody species recorded in habitat zone	Adequate Recruitment
Eucalypt canopy (combined species)	X
<i>A. dealbata</i>	X
<i>A. myrtina</i>	X
<i>A. melanocylon</i>	X
<i>B. marginata</i>	X
<i>C. laurifolia</i>	X
<i>H. decurva</i>	X
<i>P. laevis</i>	X
<i>P. guinei</i>	X
<i>S. imbricatum</i>	X
<i>T. ulmifolia</i>	X
<i>A. abbottianus</i>	X
<i>L. sp.</i>	X
number of woody spp. in EVC benchmark (55 and taller) 10/15	

Cl. white
M. sycam
P. reflex
G. ovata

Logs *30m 10-11m* Score 0

Category & Description	Large logs present*	Large logs absent*
< 10% of benchmark length	0	0
< 50% of benchmark length	3	2
≥ 50% of benchmark length	5	4

Large logs defined as those with diameter ≥ 0.5 of benchmark large tree dbh.
 * present if large log length is ≥ 25% of EVC benchmark log length.
 # absent if large log length is < 25% of EVC benchmark log length.

2271. Organic Litter *50% cover* Score 3

Category & Description	Dominated by native organic litter	Dominated by non-native organic litter
< 10% of benchmark cover	0	0
< 50% or > 150% of benchmark cover	3	2
≥ 50% or ≤ 150% of benchmark cover	5	4

'Landscape Context Score'

Patch Size Score 1

Category & Description	Score
< 2 ha	1
Between 2 and 5 ha	2
Between 5 and 10 ha	4
Between 10 and 20 ha	6
≥ 20 ha, but 'significantly disturbed'	8
≥ 20 ha, but not 'significantly disturbed'	10

* 'significantly disturbed' defined as per RFA 'Old Growth' analysis (e.g. roading, coupes, grazing etc. - effectively most patches within fragmented landscapes).

Distance to Core Area Score 4

Distance	Core Area not significantly disturbed*	Core Area significantly disturbed*
> 5 km	0	0
1 to 5 km	2	1
< 1 km	4	3
contiguous	5	4

* defined as per RFA 'Old Growth' analyses.

Neighbourhood Score 3

Radius from site	% Native vegetation*	Weighting	Score
100 m	30	0.03	0.9
1 km	40	0.04	1.6
5 km	10	0.03	0.3
subtract 2 if the neighbourhood is 'significantly disturbed'			-2.0
Add Values and 'round-off'			0.8

* to nearest 20%.
 Multiply % native vegetation x Weighting for each radius from the zone (eg. 40% x 0.03 = 1.2); then add values to obtain final Neighbourhood Value.

Final Habitat Score										
Component	'Site Condition Score'						'Landscape Context Score'		Total	
	Large Trees	Tree Canopy Cover	Lack of Weeds	Understorey	Recruitment	Organic Litter	Logs	Patch Size		Neighbourhood
Score	9	29	10	3	3	0	1	3	4	44

Assessor: TBKS	Site / habitat zone: (1)
EVC: 29	Bioregion: HSE

Date: 10/04/2026
This copied document is made available for the purpose of the planning process as set out in the Planning and Environment Act 1967. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.

Habitat Hectare life form checklist

Species name	Adeq. Recruitment* Y/N	Woody						Non-Woody						Other								
		Immature Canopy Tree >5m		Undertory Tree >5m		Malice Tree		Medium Shrub 1 - 5m		Small Shrub 0.2 - 1m		Prostrate Shrub <20cm		Herb (non grass-like leaves)		Graminoid (Grass-like leaves)						
		IT	Y	MT	MS	SS	PS	LH	MH	SH	LGT	LNG	MTG	MNG	TTG	HG	GF	TF	SC	EP	BL	S/C
Benchmark no. species		4	4	-	7	1	-	-	4	2	2	1	1	1	-	-	3	2	3	-	-	-
Obs. no. species		4	3	-	4	1	5	-	0	9	2	0	4	3	-	-	4	2	1	-	-	-
Benchmark % cover		5	20	-	28	1	-	-	5	15	10	1	1	-	-	15	10	5	-	20	-	
Obs. % cover		10	10	-	1	5	-	-	0	5	5	0	1	1	-	-	5	1	1	-	0	
<i>A. dealbata</i>	N		✓																			
<i>A. virens</i>	N		✓																			
<i>A. melanoxylon</i>	N		✓																			
<i>B. marginata</i>	N				✓																	
<i>B. rubiginosa</i>	Y					✓	✓															
<i>B. cartilaginea</i>	N																					
<i>C. dubia</i>	N																✓					
<i>C. cristata</i>	N																✓					
<i>C. lanceolata</i>	N				✓																	
<i>C. australis</i>	N																					
<i>D. stricta</i>	N								✓													
<i>D. acutalata</i>	N												✓									
<i>D. australis</i>	N																					
<i>E. rad.</i>	N		✓																			
<i>E. str.</i>	N		✓																			
<i>E. ob.</i>	N		✓																			
<i>G. rudis</i>	Y																					
<i>G. piceana</i>	Y										✓											
<i>G. microphylla</i>	N																					
<i>G. lanata</i>	N																					
<i>G. ovata</i>	N																					
<i>H. decurrens</i>	N				✓	✓																
<i>L. gracilis</i>	Y																					
<i>L. elatior</i>	N																					
<i>L. austris</i>	Y																					
<i>L. longifolia</i>	N																					
<i>M. squarrosa</i>	N																					
<i>Olinata</i>	N																					
<i>P. repens</i>	N																					
<i>P. laevigata</i>	Y				✓	✓																

This copied document is made available for the purpose of the planning process as set out in the Planning and Environment Act 1967. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.

Assessor: <u>TB/CS</u>	Site / habitat zone: <u>Q</u>
EVC: <u>27</u>	Bioregion: <u>HLF</u>

Date: 10 April 2026

Habitat Hectare life form checklist

Species name	Adeq. Recruitment* Y/N	Woody										Non-Woody						Other				
												Herb (non grass-like leaves)			Graminoid (Grass-like leaves)							
		IT	T	HT	HS	SS	PS	LN	MH	SH	LTG	LNG	HTG	MHG	TTG	HG	GF	TF	SC	EP	BL	S/C
Benchmark no. species		4	4	-	7	1	-	-	4	2	2	1	1	1	-	-	3	3	3	-	-	-
Obs. no. species																						
Benchmark % cover		5	20	-	25	1	-	-	5	1	5	10	1	1	-	-	15	10	5	-	20	-
Obs. % cover																						
<i>P. rubercentum</i>	Y																					
<i>P. guianensis</i>	Z																					
<i>S. paniculatum</i>	Z																					
<i>T. juncea</i>	Y																					
<i>T. ciliata</i>	Z																					
<i>T. tuberosa</i>	Z																					
<i>V. hederae</i>	Y																					
<i>D. abaropis</i>	Z																					
<i>G. hirsuta</i>	Z																					
<i>G. teroxygma</i>	Y																					
<i>Kunzea</i> spp	Z																					
<i>A. verticillata</i>	Z																					
<i>P. hirsuta</i>	Z																					
<i>E. sphacelata</i>	Z																					
<i>Microlaena</i>	Y																					
<i>A. rostrata</i>	Y																					
<i>E. imrayana</i>	Z																					
<i>Acrobasis</i> spp	Z																					
<i>E. Mac.</i>	Z	✓																				

Cover estimates

	BM %	Multiple estimates if required					Total cover (%)
Canopy cover	40	10	20	10	20	40	20 ~
Organic litter	50	5	100	10	5	15	27 ~
Total weed cover		1	3	20	5	1	6 ~
High threat weed cover		1	3	20	5	1	6 ~

Weeds

Species	HT (Y/N)	Species	HT (Y/N)	Species	HT (Y/N)
<i>Acer negundo</i>	Y				
<i>Asplenium Thunb.</i>	Y				
<i>Ranunculus acris</i>	Y				
<i>Hypochaeris rad.</i>	Y				
<i>Rhus radiata</i>	Y				
<i>Poa annua</i>	Y				
<i>Rubus fruticosus</i>	Y				
<i>Ulex aprifolium</i>	Y				
<i>Hypochaeris sp.</i>	Y				
<i>Rosa sp.</i>	Y				
<i>Rhus coriaria</i>	Y				

Large Tree count

Benchmark DBH	BM no./ha	DBHs or running count of LOTS	Total LT/ha
70 cm	20/ha	* 1, 10, 143, A, C, D, F, K, M, P, X, Y, V	93

Logs

Benchmark		Running log count	Total logs (m)
Benchmark m/0.1ha 30 m	Logs (>10 cm & <50% BM LT DBH)	1, 5, 6,	12
Benchmark large log _____ cm	Large Logs (≥50% BM LT DBH)	—	0

Part of the offset required will be available onsite as a first party offset. There are at least 7 Large and Very Large trees within the proposed conservation area, and the quality of the vegetation is very high, and consistent with the modelled score, if not higher.

Calculations of the gain available are detailed below (pg. 28);



Native Vegetation Offset Report - First Party General Offset

NVOR ID: 311_20241216_ODI

Cardinia
ADVERTISED MATERIAL
 Planning Application: T210451
 Date Prepared: 10 April 2026

This document is made available for the purpose of the planning process as required by the Planning and Environment Act 1987. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.

This report provides information about the amount of potential gain available at a **first party general offset site**. Maintenance, improvement, prior management and security gain scores have been calculated using modelled condition scores. **This report cannot be used for a third party offset site.**

This report is **not** an assessment by the Department of Energy, Environment and Climate Action (DEECA). The responsible authority must confirm the offset is acceptable and meets eligibility criteria defined in the *Guidelines for the removal, destruction or lopping of native vegetation* (the Guidelines). **Page 1 and Appendix 1 of this report must be appended to the offset agreement.**

Report details

Date created: 16/12/2024

Local Government Area: CARDINIA SHIRE

Registered Aboriginal Party: Wurundjeri

Coordinates: 145.57253; -37.94619

Address: 61 LIVIO DRIVE GEMBROOK 3783

Summary of offset site

Extent	
Total Extent (ha)	0.5873
Patches (ha)	0.5873
Scattered Trees (ha)	0.0000
Revegetation (ha)	0.0000
Habitat units of gain for the proposed offset site	
General Habitat Units	0.121 Melbourne Water CMA or CARDINIA SHIRE LGA
No. Large Trees	7
Strategic Biodiversity Value Score	0.530

NB: values within tables in this document may not add to the totals shown above due to rounding



Next Steps

Set up a meeting with DEECA, Trust for Nature, or your local Council to discuss establishing the offset. This will involve:

- Signing an agreement with the local Council under Section 173 of the *Planning and Environment Act 1987*, DEECA under Section 69 of the *Conservation, Forests and Lands Act 1987* or Trust for Nature under the *Conservation Trust Act 1972*.
- Commissioning a site survey plan by a registered surveyor.
- Developing an Offset Management Plan.

Offset Management Plan and Section 173 agreement templates are available at the DEECA website. If you are establishing an offset site via a Section 69 Agreement with DEECA or a Covenant with Trust for Nature, contact DEECA or Trust for Nature for the relevant templates.



ADVERTISED MATERIAL

Planning Application: T210451

Date Prepared: 10 April 2026

This copied document is made available for the purpose of the planning process as set out in the *Planning and Environment Act 1987*. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.

This copied document is made available for the purpose of the planning process as set out in the Planning and Environment Act 1987. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.

Appendix 1: Habitat units of gain per zone

This table provides the habitat units of gain per zone (Patch, Scattered Tree or Revegetation) of the offset site. The allocation of units in the Vegetation Credit Register (NVCRI) takes place at the zone level.

The General Habitat Units in a zone are calculated by the following equation in accordance with the Guidelines:

General Habitat Units = extent x gain score x general landscape factor, where the general landscape factor = 0.5 + (strategic biodiversity value score/2)

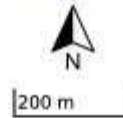
Information provided by or on behalf of the applicant			Information calculated by NVR Map								
Zone	Type	DBH	EVC code (modelled)	Bioregional conservation status	Large Tree(s)	Gain score (modelled)	Condition Score (modelled)	Polygon extent (ha)	Extent without overlap	SBV score	General Habitat Units
1	Patch	-	HSF_0029	Least Concern	7	0.270	0.799	0.5873	0.5873	0.530	0.121

Appendix 2 - Images of mapped native vegetation

1. Property in context

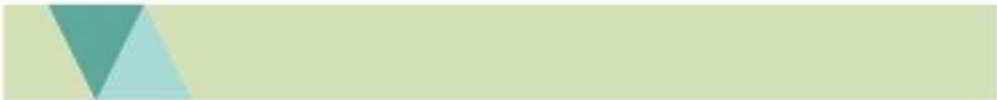


- Patches
- Scattered Trees
- Revegetation Areas
- Property Boundaries




Cardinia
ADVERTISED MATERIAL
Planning Application: T210451
Date Prepared: 10 April 2026

This copied document is made available for the purpose of the planning process as set out in the *Planning and Environment Act 1987*. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.



2. Aerial photograph showing mapped native vegetation

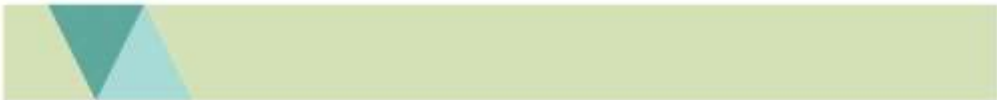


- Patches
- Scattered Trees
- Revegetation Areas

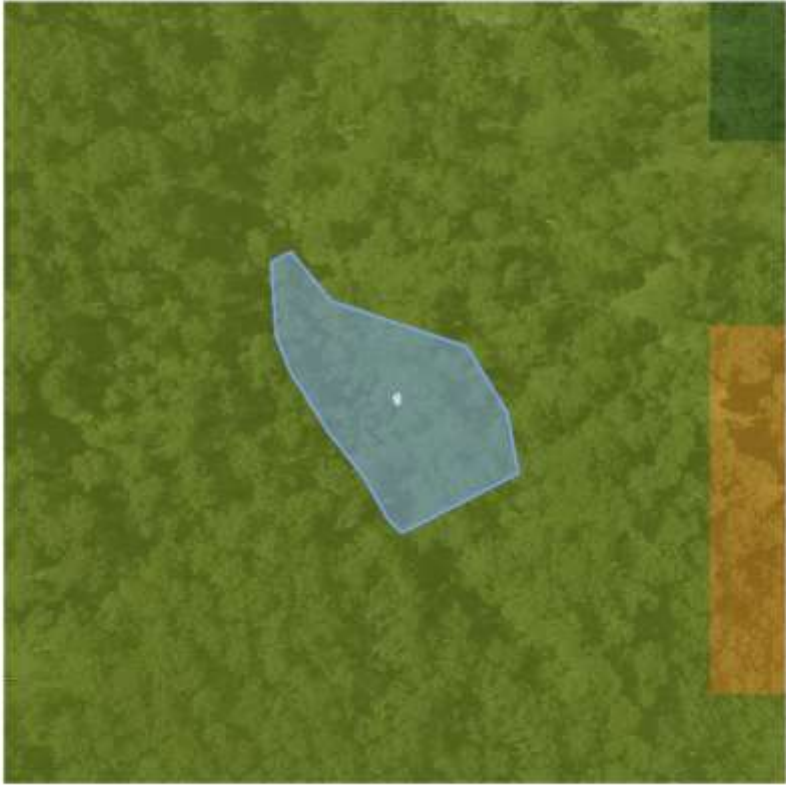



Cardinia
ADVERTISED MATERIAL
Planning Application: T210451
Date Prepared: 10 April 2026

This copied document is made available for the purpose of the planning process as set out in the *Planning and Environment Act 1987*. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.



3. Condition Score Map



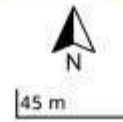
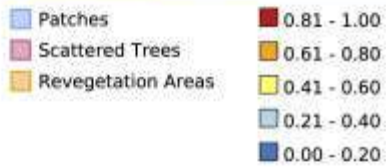
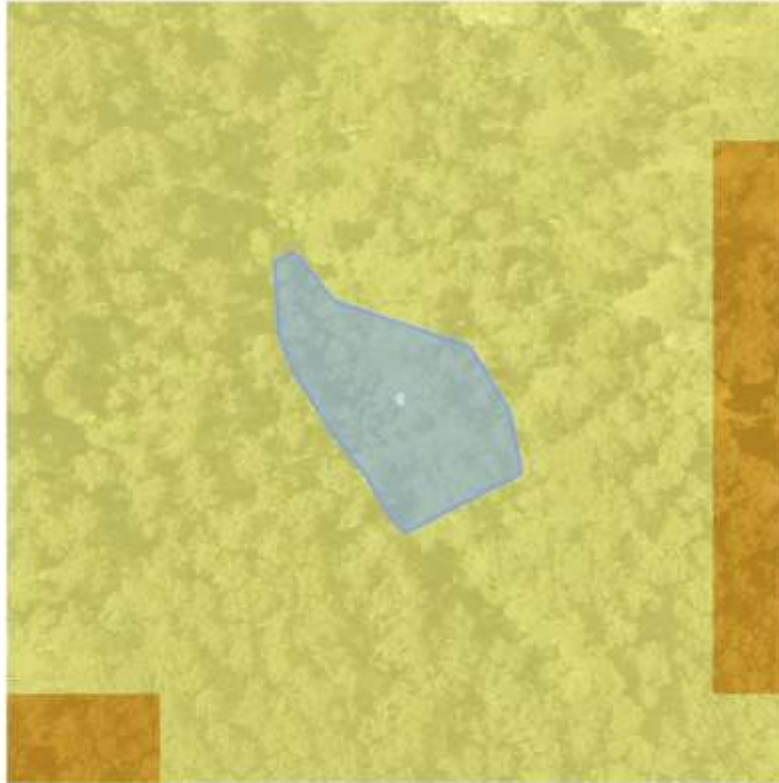
- Patches
- Scattered Trees
- Revegetation Areas
- 0.81 - 1.00
- 0.61 - 0.80
- 0.41 - 0.60
- 0.21 - 0.40
- 0.00 - 0.20




Cardinia
ADVERTISED MATERIAL
Planning Application: T210451
Date Prepared: 10 April 2026

This copied document is made available for the purpose of the planning process as set out in the *Planning and Environment Act 1987*. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.

4. Strategic Biodiversity Value Score Map




Cardinia
ADVERTISED MATERIAL
 Planning Application: T210451
 Date Prepared: 10 April 2026

This copied document is made available for the purpose of the planning process as set out in the *Planning and Environment Act 1987*. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.

Glossary

Bioregional Conservation Status (BCS)	A measure of the current extent and quality for each EVC, when compared to its original (pre-1750) extent and condition.
Canopy Tree	A mature tree (i.e. it is able to flower) that is greater than 3 metres in height and is normally found in the upper layer of the relevant vegetation type.
Condition Score	A score between 0 and 1 that describes how close native vegetation is to its mature natural state. The condition score for Patches is the weighted average condition score of the mapped native vegetation calculated using the <i>Native vegetation condition map</i> . Scattered Trees with a DBH between 75% and 100% of the Large Tree benchmark specified in the relevant local EVC are assigned a condition score of 0.12. Scattered Trees with a DBH between greater than or equal to the Large Tree benchmark specified in the relevant local EVC are assigned a condition score of 0.20.
Diameter at Breast Height (DBH)	The diameter of the main trunk of a tree measured over bark at 1.3 metres above ground level.
Ecological Vegetation Class (EVC)	A native vegetation type classified based on a combination of its floristics, lifeforms, and ecological characteristics.
Extent	The area of land covered by a Patch, a Scattered Tree and/or Revegetation, measured in hectares. Where the mapped vegetation includes Scattered Trees, each tree is assigned a standard extent and converted to hectares. For the purposes of native vegetation offsets, a Scattered Tree is assigned a standard extent defined by a circle with a 15-metre radius.
Gain score	A score between 0 and 1 that describes the predicted improvement in biodiversity value of native vegetation due to active management and increased security provided at the offset site. The gain score for a Patch of native vegetation is the weighted average gain score of the mapped native vegetation calculated using scores derived from the <i>Native vegetation condition map</i> . The gain score for a Scattered Tree with a DBH greater than or equal to the Large Tree benchmark specified in the relevant local EVC is 0.176. The gain score for a Scattered Tree with a DBH between 75% and < 100% of the Large Tree benchmark specified in the relevant local EVC is 0.080. The gain score for Revegetation areas is 0.077.
General habitat units of gain	The general habitat units of gain combines site-based and landscape scale information to obtain an overall measure of the biodiversity value of the native vegetation to be protected, calculated as follows: <i>General habitat units of gain = extent x gain score x general landscape factor</i>
General landscape factor	The general landscape factor is an adjusted Strategic Biodiversity Value score, calculated as follows: <i>General landscape factor = 0.5 + (strategic biodiversity value score/2)</i> The adjustment has been undertaken to reduce the influence of landscape scale information on the general habitat score.

Large Tree	A Large Tree is a native Canopy Tree with a DBH greater than or equal to the Large Tree benchmark for the local EVC. A Large Tree can be either a large Scattered Tree or a large Patch Tree (Canopy Tree in Patch).
Offset type	There are two types of offsets, General Offsets and Species Offsets. All offset sites include General Offsets. Sites that are mapped as habitat for rare or threatened species can also include Species Offsets for the mapped species.
Patch	A Patch of native vegetation is: <ul style="list-style-type: none"> • An area of vegetation where at least 25 per cent of the total perennial understorey plant cover is native, or • Any area with three or more native canopy trees where the drip line of each tree touches the drip line of at least one other tree, forming a continuous canopy, or • Any mapped wetland included in the Current wetlands map, available in DEECA systems and tools.
Revegetation	Revegetation is the establishment of native vegetation to a prescribed minimum standard in formerly cleared areas outside a Patch or Scattered Tree. Revegetation offset sites can only generate General Habitat Units, not Species Habitat Units. Revegetation of native vegetation must meet the eligibility requirements outlined in the Guidelines.
Scattered Tree	A native Canopy Tree that does not form part of a Patch. At least five canopy species plants must be recruited or planted for each Scattered Tree that is protected.
Strategic Biodiversity Value (SBV) score	The Strategic Biodiversity Value score represents the complementary contribution to Victoria's biodiversity of a location, relative to other locations across the state. This score is the weighted average Strategic Biodiversity Value score of the mapped native vegetation calculated using the Strategic Biodiversity Value map.

© The State of Victoria Department of Energy, Environment and Climate Action 2024



This work is licensed under a Creative Commons Attribution 4.0 International licence. You are free to re-use the work under that licence, on the condition that you credit the State of Victoria as author. The licence does not apply to any images, photographs or branding, including the Victorian Coat of Arms, the Victorian Government logo and the Department of Energy, Environment and Climate Change (DEECA) logo. To view a copy of this licence, visit <http://creativecommons.org/licenses/by/4.0/>

Disclaimer

This publication may be of assistance to you but the State of Victoria and its employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss or other consequence which may arise from you relying on any information in this publication.



ADVERTISED MATERIAL
 Planning Application: T210451
 Date Prepared: 10 April 2026

This copied document is made available for the purpose of the planning process as set out in the *Planning and Environment Act 1987*. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.

Table 2: Potential LOT/VLOT Offset Trees as mapped in Offset Gain calculation

No.	Species	Circ. cm	DBH cm	
01	<i>Eucalyptus radiata</i>	308	98	L.O.T.
02	<i>Eucalyptus obliqua</i>	368	117	L.O.T.
03	<i>Eucalyptus obliqua</i>	434	138	V.L.O.T.
04	<i>Eucalyptus obliqua</i>	289	92	L.O.T.
05	<i>Eucalyptus macrorhyncha</i>	283	90	L.O.T.
06	<i>Eucalyptus macrorhyncha</i>	317	101	L.O.T.
07	<i>Eucalyptus obliqua</i>	283	90	L.O.T.

Plus an area of 0.528 Ha extent proposed as an Offset Conservation Zone
 GHU gain calculated = 0.121, 7 minimum LOT/VLOT available

Modelled score is 0.799 which is reflective of the high biodiversity and excellent quality of the remnant.

(NB: gain available may be higher if trees which are 75% of benchmark DBH are also included and all LOT/VLOTs with area are surveyed and designated for protection.

Loss = 0.271 GHU

Gain= 0.121 GHU

Deficit =0.15 GHU (conservative calculation due to additional gain possible)

First party offset onsite = 0.121 GHU

Third Party offset (to be purchased) = 0.15 GHU

(~ \$25k at current rates and offset credits are available)



ADVERTISED MATERIAL

Planning Application: T210451
 Date Prepared: 10 April 2026

This copied document is made available for the purpose of the planning process as set out in the Planning and Environment Act 1987. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.

Pictorial Assessment

Offset Trees


ADVERTISED MATERIAL
Planning Application: T210451
Date Prepared: 10 April 2026

This copied document is made available for the purpose of the planning process as set out in the Planning and Environment Act 1987. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.



Tree O1 root zone



Tree O1 canopy



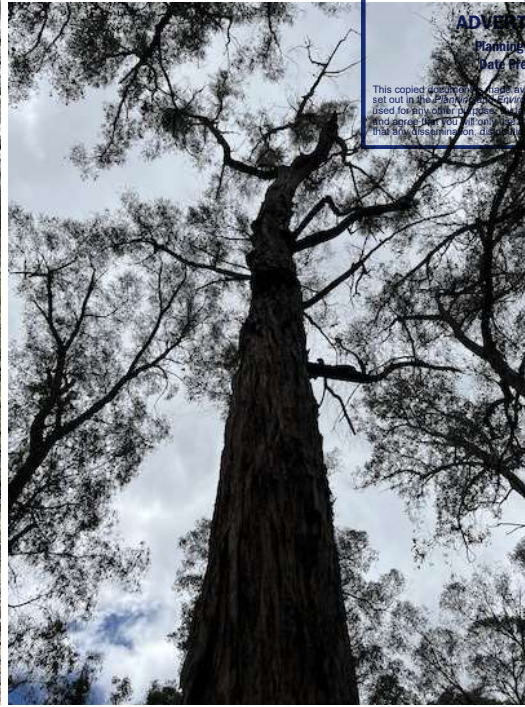
Tree O2 root zone



Tree O2 canopy



Tree O3 root zone



Tree O3 canopy



Tree O4 root zone



Tree O4 canopy



Tree O5 root zone



Tree O5 canopy



Tree O6 root zone



Tree O6 canopy



Tree O7 root zone



Tree O7 canopy

Proposed Conservation Offset Area



Conservation Area vegetation


Cardinia
ADVERTISED MATERIAL
Planning Application: T210451
Date Prepared: 10 April 2026

This copied document is made available for the purpose of the planning process as set out in the Planning and Environment Act 1987. The information must not be used for any other purpose. By making a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.



Conservation Area vegetation



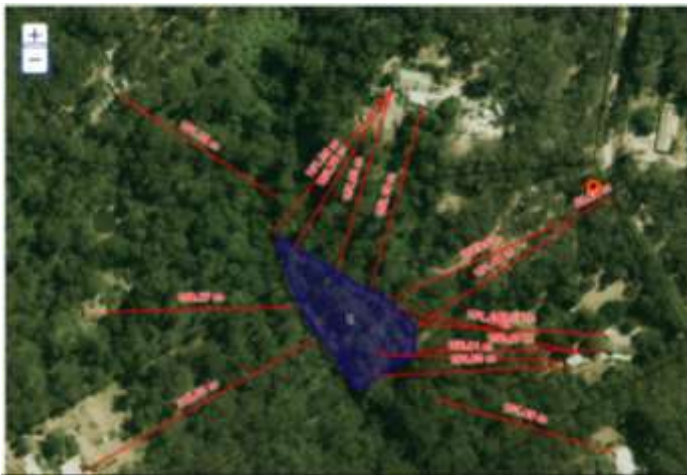
Conservation Area vegetation




Cardinia
ADVERTISED MATERIAL
 Planning Application: T210451
 Date Prepared: 10 April 2026

This copied document is made available for the purpose of the planning process as set out in the *Planning and Environment Act 1987*. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.

Proposed offset conservation area looking west



Working out capacity for securing an offset onsite, i.e. >150m from any dwellings, including this proposed dwelling, altered slightly to allow for boundary offset. (NVIM tool)

Additionally, some indigenous vegetation can be established as part of the landscaping within the defendable space so long as it complies with the CFA guidelines for vegetation management as prescribed in the BMP.

It is also recommended that the Effluent Field be planted in a WSUD (Water Sensitive Urban Design) style landscaping with indigenous sedges, rushes, grasses and ground covers to aide in taking up excess water and increase biodiversity in the development area. Suggested species (from CSC ‘Tall Forest’ EVC) include:

- Amphibromus nervosus* Common Swamp Wallaby -grass
- Carex appressa* Tall Sedge
- Juncus pallidus* Pale Rush
- Microlaena stipoides* Weeping Grass
- Poa ensiformis* Purple-sheath Tussock-grass
- Dichondra repens* Kidney-weed
- Lythrum hyssopholia* Small Loosestrife
- Viola hederacea* Native Violet

Recommendations & Conclusions



It can be concluded that the proposed new development being a new dwelling, efficient field shed, PBS, driveways and compliant defendable space will require some vegetation removal and continued modification and understorey management. However, this for the most part has been limited to smaller trees, with as many Large Old Trees being retained as possible within the property. The indigenous understorey in the proposed development area is already modified for ~85% of the defendable space area. The indigenous vegetation requiring removal which is not exempt will be offset as a partial onsite Offset area within the Conservation Zone and a third-party OTC vegetation credit which will be sought once the planning process has progressed. These NVR and Offset reports are to be read in conjunction with the Healesville Plants Arboricultural Report and Plans by Bianca Macey Building Designers.

In summary;

Loss = 0.271 GHU (0.497 Ha extent) @ 0.44 condition
For entire defendable space area

Gain = 0.121 GHU (0.587 Ha extent) @ 0.79 condition
For conservation offset zone available onsite >150m from existing dwellings

Deficit of 0.271 - 0.121 = 0.15 GHU *which will be purchased as a third-party vegetation credit.*

References

5.0

Cardinia Shire Council: <https://www.cardinia.vic.gov.au> Mapping <https://cardinia.pozi.com/>

https://www.planning.vic.gov.au/data/assets/pdf_file/0028/482176/Fact-Sheet.Vegetation-Exemptions-Bushfire-Protection.pdf

DELWP *Naturekit*. <http://maps.biodiversity.vic.gov.au/viewer/?viewer=NatureKit>

DELWP *Native Vegetation Information Management System – NVIM tool*.
<https://nvim.delwp.vic.gov.au>

DT&P *Vicplan* <https://mapshare.vic.gov.au/vicplan/>

Macey, Bianca (2024) Bianca Macey Building Designer; *Site plan, detail and BMP plans RevM*

Standards Australia. (2009) AS 4970-2009 (2025) *Protection of Trees on Development Sites*.

Treetec (2014) *TPZ/SRZ Calculator*. www.treetec.net.au

Van de Paverd, S. (2025) *Bushfire Management Plan – 61 Livio Dve, Gembrook*, Firefront Consultancies.

Preliminary species list – conservation area initial vascular plant survey (high diversity)

Indigenous species

<i>Acacia dealbata</i>	Silver Wattle
<i>Acacia implexa</i>	Lightwood
<i>Acacia melanoxylon</i>	Blackwood
<i>Banksia maginata</i>	Silver Banksia
<i>Baurea rubioides</i>	Wiry Bauera
<i>Blechnum cartilagineum</i>	Gristle Fern
<i>Calochlaena dubia</i>	Common Ground-fern
<i>Clematis aristata</i>	Austral Clematis
<i>Correa lawrenciana</i>	Mountain Correa
<i>Correa reflexa</i>	Native Fuchsia
<i>Cyathea australis</i>	Rough Tree-fern
<i>Dampiera stricta</i>	Blue Dampiera
<i>Dianella revoluta</i>	Spreading Flax-lily
<i>Dicksonia antarctica</i>	Soft Tree-fern
<i>Eucalyptus macrorhyncha</i>	Red Stringybark
<i>Eucalyptus obliqua</i>	Messmate
<i>Eucalyptus radiata</i>	Narrow-leaf Peppermint
<i>Eucalyptus sieberi</i>	Silvertop Ash
<i>Gahnia radula</i>	Thatch Saw-sedge
<i>Gahnia sieberiana</i>	Red-fruit Saw-sedge
<i>Gleichenia microphylla</i>	Scrambling Coral Fern
<i>Goodenia lanata</i>	Trailing Goodenia
<i>Goodenia ovata</i>	Hop Goodenia
<i>Hakea decurrens</i>	Bushy Needlewood
<i>Lagenophora gracilis</i>	Slender Bottle-daisy
<i>Lepidosperma elatius</i>	Tall Sword-sedge
<i>Lobelia anceps</i>	Angled Lobelia
<i>Lomandra longifolia</i>	Mat Rush
<i>Melaleuca squarrosa</i>	Scented Paperbark
<i>Olearia lirata</i>	Snowy Daisy-bush
<i>Olearia phlogopappa</i>	Dusty Daisy-bush
<i>Platylobium reflexum</i>	Victorian Flat-pea
<i>Prostanthera lasianthos</i>	Coranderrk
<i>Pteridium esculentum</i>	Bracken
<i>Pultenaea gunnii</i>	Golden Bush-pea
<i>Spyridium parvifolium</i>	Dusty Miller
<i>Tetrahaena juncea</i>	Forest Wire Grass
<i>Tetratheca ciliata</i>	Pink Bells



Thysanotus tuberosus
Todea barbara
Viola hederacea
Zieria arborescens

Common Fringe-lily
 Austral King-fern
 Native Violet
 Stinkwood

Cardinia
ADVERTISED MATERIAL
 Planning Application: T210451
 Date Prepared: 10 April 2026

This copied document is made available for the purpose of the planning process as set out in the Planning and Environment Act 1987. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.

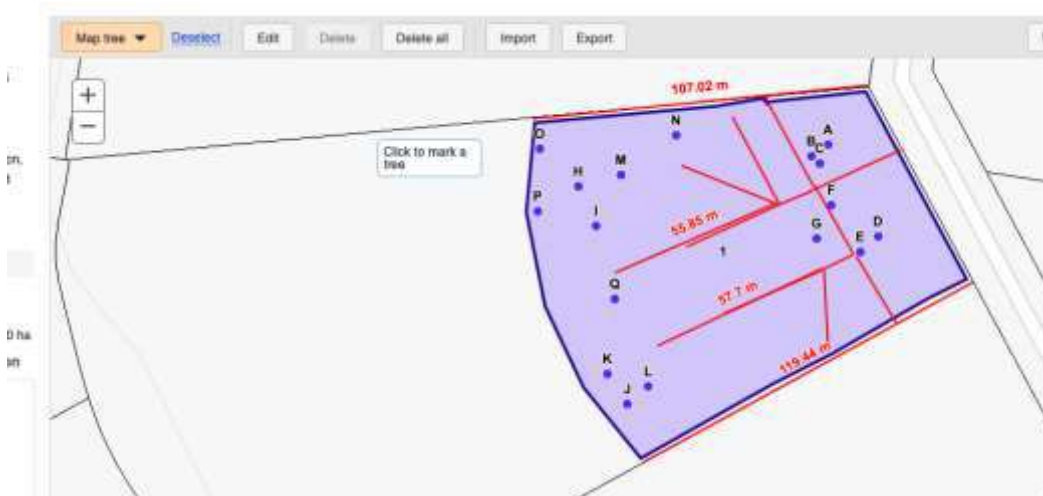
Weed Species

Acer negundo
Anthoxanthum odoratum
Ehrharta erecta
Hypochoeris radicata
Pinus radiata
Poa annua
Rubus fruticosus

Box Elder
 Sweet Vernal Grass
 Panic Veldt Grass
 Cat's ear
 Radiata Pine
 Annual Grass
 Blackberry

Plans below show the minimisation process:

Proposal #1

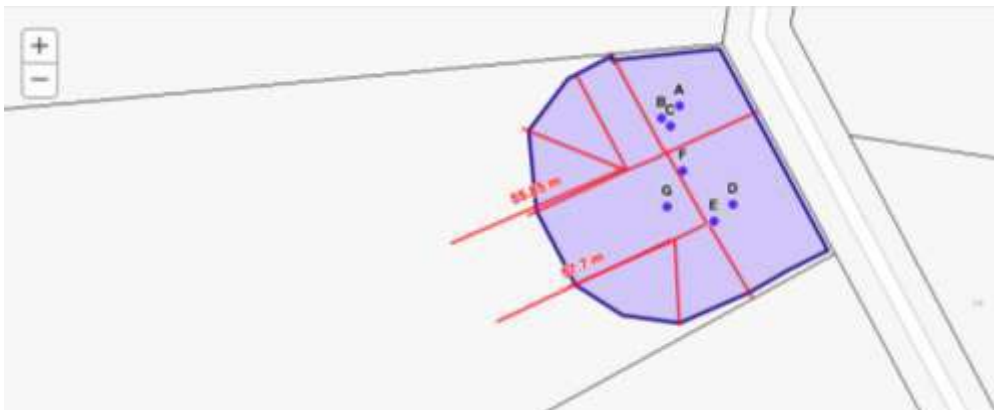


2021 DS area workings out of vegetation loss – NVIM tool (tree # notations not the same as Arb Report).

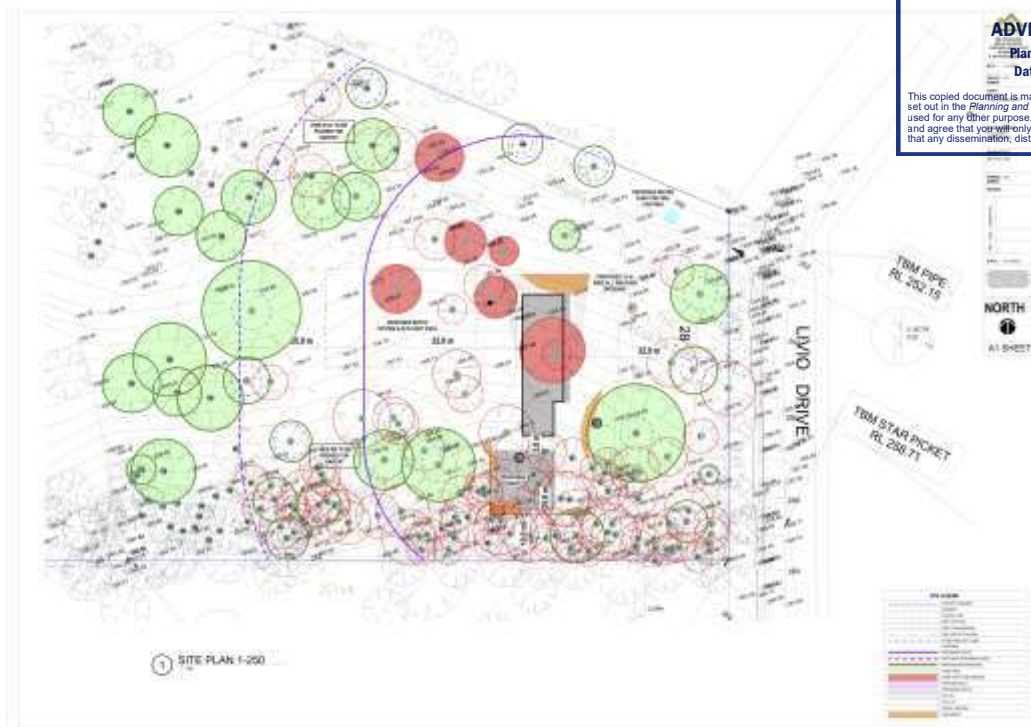


Original proposal #1 July 2021. BAL 12.5 construction level plus DS

Proposal #2



2022/23 DS area workings out of vegetation loss – NVIM tool (tree # notations not the same as Arb Report).




ADVERTISED MATERIAL
 Planning Application: T210451
 Date Prepared: 10 April 2026
This copied document is made available for the purpose of the planning process as set out in the Planning and Environment Act 1967. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.

Site map showing proposal #2 tree removal and development, December 2021 BAL 29 construction level plus 32m DS plus additional 25m



*Site map showing proposal #3 tree removal and development re-orientated along contour and dwelling/shed sizes reduced 2023
BAL 29 construction level plus 32m DS plus additional 25m*



*Site map showing proposal #4 tree removal and development re-orientated along contour and dwelling/shed sizes reduced 2024
BAL 40 construction level plus 32m DS*


Cardinia
ADVERTISED MATERIAL
 Planning Application: T210451
 Date Prepared: 10 April 2026

This copied document is made available for the purpose of the planning process as set out in the Planning and Environment Act 1987. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.

Avoid and Minimise Statement

Removal of native vegetation cannot be avoided in this instance due to the large number of trees onsite, however since the original application the amount of vegetation earmarked for removal has been reduced significantly (site maps above).



Proposal #1 - The original proposal for this site includes a dwelling with a garage built to a BAL of 12.5 set back 60m from the front boundary that required a 75m or property boundary Defendable Space – Tree removal not indicated.

Proposal #2 - 113/173 trees to be removed, including 6 L.O.T.'s and 1 V.L.O.T. and an area of 0.594 hectares (BAL 12.5 construction).

Proposal #3 -The next version removed the garage, moved the shed, re-orientated and moved the house closer to the front of the property, and upped the BAL to 29, these changes allowed a DS of 32m with an extra 25m of trees to be clustered and the understorey modified. CFA has allowed the trees in the +25m to be retained, this version sees the shed reduced in size also. Removal of 44 trees, still with 7 L.O.T/ V.L.O.T. and 0.488 hectares of native vegetation.

Proposal #4 saw the removal of 46 trees (9 LOTs) and 0.472 Ha vegetation extent. House is reduced in size, Construction level increased to BAL40, shed is moved (and reduced) cut and fill reduced by location of buildings along contours, Personal bushfire shelter installed.

This proposal (current #5) sees the removal of 41 trees (9 LOTs) and 0.497 Ha vegetation extent. House is reduced in size and oriented parallel to north boundary and is 32m from north & east boundaries, Construction level BAL40, shed cut and fill reduced by location of buildings along contours, Personal bushfire shelter installed. All works and loss are within the defendable space area to minimise vegetation removal and loss.

The EVC 29 is of Least Concern, the removal is in Location 1, the majority of the Strategic Biodiversity Value mapped as 0.61-0.80, the Native Vegetation Condition mainly is 0.61-0.80 with small sections of 0.21-0.40 & 0.81-1.00. (see maps above).

Defendable Space Statement

There will be 41 trees removed for Defendable Space for this proposal.

Offset Statement

A first party offset is an option on this site due to an area being available at rear of the property being away from the required 150m proximity of neighbouring dwellings. The offset area of 0.587Ha has a much higher quality vegetation which will be contained within a Conservation Zone, it does also contain a **minimum** of 6 L.O.T.'s and 1 V.L.O.T (preliminary inspection, others are also present) proposed for permanent protection after the loss of the same LOT/VLOTs in the proposed development area. The extended loss (deficit once first party avenues have been explored and secured) will need to be achieved with a third-party OTC vegetation credit will be sourced to satisfy the offset amount once the planning process has progressed.



ADVERTISED MATERIAL

Planning Application: T210451

Date Prepared: 10 April 2026

This copied document is made available for the purpose of the planning process as set out in the *Planning and Environment Act 1967*. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.



ADVERTISED MATERIAL

Planning Application: T210451

Date Prepared: 10 April 2026

This copied document is made available for the purpose of the planning process as set out in the *Planning and Environment Act 1987*. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.

AMY VOLTA

**LAND CAPABILITY ASSESSMENT
FOR
ON-SITE WASTEWATER MANAGEMENT
AT
61 LIVIO DRIVE, GEMBROOK VIC 3783**

REPORT No. LCA12082021

AUGUST 2021

By

Zoltan Lorincz, M.Agricultural Sc.
Land Capability Assessment Victoria
CONSULTANTS IN THE AGRICULTURAL SCIENCES

IMPORTANT NOTE

The land capability assessment report consists of this cover sheet, two written sections, three drawings and four appendices.
The report elements are not to be read or interpreted in isolation.

(i)

TABLE OF CONTENTS

(ii) Assessor's Qualifications & Insurance

(iii) Executive Summary


ADVERTISED MATERIAL
Planning Application: T210451
Date Prepared: 10 April 2026

This copied document is made available for the purpose of the planning process as set out in the Planning and Environment Act 1987. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.

SECTION 1. SITE INVESTIGATION.....	
1.1 INTRODUCTION	1
1.2 INVESTIGATION METHOD	1
1.3 CAPABILITY ASSESSMENT	2
1.3.1 Land-Soil Unit A.	2
1.3.1.1 Climate.	2
1.3.1.2 Slope and Aspect.	2
1.3.1.3 Vegetation and Land Use.....	2
1.3.1.4. Slope Stability.....	2
1.3.1.5 Subsurface Profile.	2
1.3.1.6 Soil Permeability.....	3
1.3.1.7 Basement Rock Permeability.	3
1.3.1.8 Colloid Stability.	3
1.3.1.9 AS1547:2012 Soil Classification.	3
1.3.1.10 Surface Drainage.....	4
1.3.1.11 Groundwater.....	4
1.3.1.12 Nutrient Attenuation.....	4
1.3.1.13 Sand filter.	5
1.4 RISK MANAGEMENT & MITIGATION	5
1.4.1 Water Usage.	5
1.4.2 Secondary Treatment.....	5
1.4.3 Block Size.	5
1.4.4 Management Plan.	5
1.4.5 Sizing of Treatment Systems.	5
1.4.6 Load Balancing.	5
1.4.7 Zoned Dosing.....	5
1.4.8 Pressure Compensated Subsurface Disposal.	6
1.4.9 Oversized Effluent Areas.	6
1.4.10 Reserve Areas.	6
1.4.11 Buffer Distances.....	6
1.4.12 System Failure.	7
1.4.12.1 Mechanical Breakdown.	7
1.4.12.2 Accidents.	7
1.4.12.3 Operational Breakdown.....	7
1.4.12.4 Maintenance Breakdown.....	7
1.4.13 Risk Summary.....	7
SECTION 2. RECOMMENDATIONS	10
2.1 APPLICATION.....	10
2.2 SUBSURFACE IRRIGATION	10
2.2.1 General.	10
2.2.2 Effluent.	10

2.2.2.1 Effluent Quality	10
2.2.2.2 Effluent Quantity	10
2.2.2.3 Load Balancing.....	10
2.2.3 Application Rates and Irrigation Areas.....	10
2.2.3.1 Hydraulic Loading.....	11
2.2.3.2 Nutrient Loading.....	11
2.2.3.3 Design Loading.....	11
2.2.4 General Requirements.....	11
2.2.5 Subsurface Distribution System.....	11
2.2.5.1 Ground Preparation and Excavations.....	11
2.2.5.2 Pump System and Pipe works.....	11
2.2.6 Sequential Zoned Irrigation.....	11
2.2.7 Inspections and Monitoring.....	11
2.2.8 Soil Renovation.....	12
2.2.9 Effects of Irrigation on Existing Trees.....	12
2.3 RESERVE AREA.....	12
2.4 SITE DRAINAGE.....	12
2.5 BUFFER distances.....	12
2.6 SUMMARY OF RECOMMENDATIONS.....	12

DRAWING 1

DRAWING 2

APPENDIX A1

Soil Permeability and Soil Test Results

APPENDIX A2

Soil Profile Photographs

APPENDIX A3

Logs of Boreholes

APPENDIX B

Water and Nutrient Balance and Rainfall Data

APPENDIX C

Land Capability Assessment Table

APPENDIX D

Management Plan

DRAWING MP1


Cardina

ADVERTISED MATERIAL

Planning Application: T210451
Date Prepared: 10 April 2026

This copied document is made available for the purpose of the planning process as set out in the *Planning and Environment Act 1987*. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.

ASSESSOR'S ACADEMIC & PROFESSIONAL QUALIFICATIONS

Zoltan Lorincz is the principal Soil Scientist at Land Capability Assessment Victoria. He has a Masters Degree in Applied Science (General Agriculture) (awarded in 2002) and completed his studies in a two-year Postgraduate Specialist Training Programme in Soil Science (awarded in 2012).

All fieldwork and analyses are undertaken by Zoltan Lorincz.

ASSESSOR'S PROFESSIONAL INDEMNITY INSURANCE

Policy Number:	118U410227BPK
Period of Cover:	17/8/2020 – 17/8/2021
Geographical Coverage:	Australia
Retro-active Date:	Unlimited
Limit of Indemnity:	\$2,000,000
Policy Number:	118U410227BPK



EXECUTIVE SUMMARY

The proposed development at 61 Livio Drive, Gembrook VIC is suitable for sustainable on-site effluent disposal.

The site is located in the Rural Conservation Zone and is not in a Special Water Supply Catchment. It is proposed to construct a 4-bedroom (equivalent) residence.

Our field testing which included soil profile logging and sampling, a differential level survey, laboratory testing and subsequent reporting including water and nutrient balance modelling has revealed that on-site effluent disposal is rational and sustainable.

The assessment has been made in the context of prioritising public and environmental health with a design compromise between rational wastewater reuse and sustainable wastewater disposal.

Effluent shall be treated to at least the 20/30 standard and distributed by pressure compensated subsurface irrigation utilising the processes of evapotranspiration and deep seepage.

The irrigation area has been determined for the mean wet year and satisfies the requirements of *SEPPs (Waters of Victoria)* in that the effluent irrigation system cannot have any detrimental impact on the beneficial use of surface waters or groundwater.

For the proposed development the available area is not limiting and continuous or long-term increases in effluent volume above 750 litres/day (4-bedroom equivalent residence) are possible.

With regard to density of development and cumulative risk the assessment has considered risk associated with subsurface flows and surface flows.

In regard to subsurface flows, it is clear that provided the on-site system is adequately designed, constructed, operated and maintained the risk to surface and ground waters is negligible. Once the effluent is placed underground, the extraordinary long travel times via ground water to surface waters ensures adequate nutrient attenuation.

In regard to surface flows, it is clear that provided the on-site system is adequately designed, constructed, operated and maintained, the risk to surface and ground waters is no greater than for a sewered development.

Proposed use requires AWTS or sand filter and pressure compensated subsurface irrigation.

The LCA recommends a conservative, scientifically based, well founded wastewater management system with inherent multiple barriers of safety.

Cumulative risk from the development is extremely low. The risk of serious or irreversible damage is extremely low.

All requirements of *SEPP (Waters of Victoria)* have been met.



LAND CAPABILITY ASSESSMENT FOR ON-SITE WASTEWATER MANAGEMENT AT 61 LIVIO DRIVE, GEMBROOK VIC 3783

SECTION 1. SITE INVESTIGATION

1.1 INTRODUCTION

On instruction from the landowner, an investigation was undertaken to assess land capability for on-site effluent disposal/reuse for a 4-bedroom (equivalent) residence at 61 Livio Drive, Gembrook.

The site is in the Rural Conservation Zone and is not located in a Special Water Supply Catchment.

The assessment has been made in the context of prioritising public and environmental health with a design compromise between rational wastewater reuse and sustainable wastewater disposal.

1.2 INVESTIGATION METHOD

The site investigation was carried out in accordance with *SEPPs (Waters of Victoria) and related documents. This report is in accordance with current SEPPs (Waters of Victoria), Code of Practice - Onsite Wastewater Management, E.P.A. and Publication 891.4, July 2016. Guidance has been sought from AS/NZS 1547:2012, Guidelines for Wastewater Irrigation, E.P.A. Publication 168, April 1991, Wastewater Subsurface Drip Distribution, Tennessee Valley Authority, March, 2004, AS 2223, AS 1726, AS 1289, AS 2870 and Australian Laboratory Handbook of Soil and Water Chemical Methods.*

Our capability assessment involved the mapping of unique land-soil unit(s) which were defined in terms of significant attributes including; climate, slope, aspect, vegetation, soil profile characteristics (including soil reaction trend, electrical conductivity and colloid stability), depth to rock, proximity to surface waters and escarpments, transient soil moisture characteristics and hydraulic conductivity.

Exploratory auger drilling was undertaken to enable profile characterization and sampling in conjunction with a series of constant head tests, which were prepared in accordance with AS/NZS 1547:2012 (Talsma-Hallam method).

Water balance analysis was based on the mean wet year calculated from the mean monthly rainfall data and mean annual rainfall data for Beaconsfield Upper and mean evaporation data for Scoresby Research Institute and was undertaken in accordance with *Guidelines for Wastewater Irrigation, E.P.A. Publication 168, April 1991 (Part), AS/NZS 1547:2012* and in-house methods.

The rainfall and evaporation data were obtained from the National Climate Centre, Bureau of Meteorology. The data was subsequently analysed and applied to our water balance analysis.

The results of the water balance analysis are given in Appendix B, to this report.

The results of the investigation and *in situ* and laboratory testing are given in Section 1.3, below, and in Appendix A, to this report.

1.3 CAPABILITY ASSESSMENT

We have used the attributes determined by the investigation to define one (1) land-soil unit, as follows:-

1.3.1 Land-Soil Unit A.

This land-soil unit consists of gently to moderately sloping terrain, as shown in Drawing 2 and Figure 1.

The salient land-soil attributes and constraints are summarised in Appendix C.

1.3.1.1 Climate.

The general area receives a mean annual rainfall of 1020mm and a mean annual evaporation of 1197mm. Mean evaporation exceeds the mean rainfall in October through April.

Rainfall and evaporation data are presented in Appendix B, to this report.

1.3.1.2 Slope and Aspect.

The natural ground surface slopes to the north between 7.5% and 14%, generally, as shown in Drawing 2 and Figure 1.

The unit is somewhat protected from the prevailing winds and is subject to partial shade from nearby trees.

1.3.1.3 Vegetation and Land Use.

The unit is vegetated with remnant eucalypt trees as shown in Figure 1. The land is currently unused.

The land application area has been designed for pasture grass (rye/clover equivalent).

1.3.1.4. Slope Stability.

For the encountered subsurface conditions, slope degree and geometry and for the proposed range of hydraulic loadings, the stability of the ground slopes within the disposal areas are unlikely to be compromised.

1.3.1.5 Subsurface Profile.

The following interpretation of the general subsurface profile assumes conditions similar to those encountered in the boreholes are typical of the investigation area.

Note: If subsurface conditions substantially different from those encountered in the investigation are encountered during soil renovation works, all work should cease, and this office notified immediately.

The unit is underlain by residual materials of Devonian Age.

The general subsurface profile consists of:

- A topsoil (A-horizon) layer of dark greybrown, wet, medium dense clayey silt (clayloam), with a soil reaction trend of 5.0pH and electrical conductivity (EC_{SE}) of 0.1dS/m and a free swell of 0%, containing a root zone, to a depth of 0.30m, overlying,
- A residual soil (B₁-horizon) layer of dark yellowbrown, wet, medium dense clayey silt (clayloam), with a soil reaction trend of 5.6pH, electrical conductivity (EC_{SE}) of 0.1dS/m and a free swell of 0%, to a depth of 0.80m, overlying,
- A residual soil (B₂ -horizon) layer of dark yellowbrown, moist, silty clay (light clay) of low plasticity, with a soil reaction trend of 5.6pH, electrical conductivity (EC_{SE}) of 0.09dS/m and a free swell of 20%, to a depth of 1.20m, overlying,



- A residual soil (B₃ -horizon) layer of yellowbrown with orange, moist, clayey silt (clay loam), with a soil reaction trend of 5.7pH, electrical conductivity (EC_{SE}) of 0.1dS/m and free swell^a of 20%, to a depth of at least 1.50m.



1.3.1.6 Soil Permeability.

The in-situ permeability tests were attempted on 29th July, 2021.

The occurrence of transient and seasonally occurring free water in the subsoil materials prevented the acquisition of sufficient hydraulic data for determination of the geometric mean of saturated hydraulic conductivity.

Note: The relatively high soil moisture content at the time of testing was due to seepage from the topsoil into the test holes and high moisture content from recent rainfalls. This transient high soil moisture impacts on the test method only and does not reflect in any way on the suitability of the site for the sustainable onsite attenuation of waste water – see AS/NZS 1547:2012, Appendix G.

A conservative estimate of permeability has been deduced as follows (see Code 3.6.1.):-

Profile analysis in accordance with AS/NZS 1547:2012 and our laboratory determined dispersion and swell potential shows the residual clay soils to be moderately structured, non-dispersive light clays (Type 5b soils) with saturated hydraulic conductivity between 0.06m/day and 0.12m/day.

Similar non-dispersive soils have responded positively (with sufficiently improved hydraulic capability) following applications of gypsum.

For the limiting moderately structured clay soils we have adopted an estimated and conservative design saturated hydraulic conductivity of 0.08m/day.

Peak deep seepage is conservatively estimated at 4.7mm/day. Average daily deep seepage is 3.6mm.

1.3.1.7 Basement Rock Permeability.

From the literature and from examination of rock profiles and rock mass defect character in the vicinity, the hydraulic conductivity of the basement rocks would be in excess of 0.05m/day (adopt 1m/day for buffer design).

1.3.1.8 Colloid Stability.

The results of the Emerson Crumb and Dispersion Index Tests indicate that the soil materials are non-dispersive. The residual clay soils have Emerson Class of 8 and 4,5,6 and Dispersion Index of 0.

The salting potential has been assessed by inspection of the ground surface for salt tolerant and/or salt affected vegetation and the electrical conductivity has been determined for the A and B horizons using a 1:5 soil/water extract and converted to EC (saturation extract). Also reaction trend and free swell potential have been determined.

The determined electrical conductivity (EC_{SE}) ranged from 0.09dS/m to 0.01dS/m for all materials. The reaction trend ranged from 5.0pH to 5.7pH, while the free swell potential ranged between 0% and 20%.

We recommend amelioration in the form of gypsum application to maintain stable peds under saline irrigation at the rate of 0.5kg/m².

1.3.1.9 AS1547:2012 Soil Classification.

In accordance with AS/NZS1547:2012 the residual clay materials can be classified as Type 5b soils (moderately structured, non-dispersive light clays).

^a After Holtz (measures swell potential of fraction passing 450 micron sieve)

After allocating proportional vertical and lateral flows and allowing for the potential for perched water mounding, we have adopted a daily peak water balance seepage rate^b of 4.7mm for 20/30 standard effluent. The theoretical average daily seepage rate is 3.6mm.

1.3.1.10 Surface Drainage.

The proposed effluent area slopes to north, as shown in Drawing 2, and drains to the nearest surface waters located at least 170m distant.

1.3.1.11 Groundwater.

No seepage was encountered in any of the boreholes. Subsurface flow direction will generally reflect natural surface flow direction (i.e. a northerly direction).

There are no groundwater bores within a significant distance of the site (the closest bore is approximately in 520m distance).

The Visualising Victoria's Groundwater database indicates that there is no groundwater shallower than 10 metres of the surface.

Regionally the groundwater is of high yield and good quality (less than 500mg/litre TDS) with beneficial use including domestic.

1.3.1.12 Nutrient Attenuation.

Clayey soils (as found on this site) can fix large amounts of phosphorous. Phosphate-rich effluent seeping through these soils will lose most of the phosphorous within a few metres.

The limiting nutrient for this site is nitrogen. No phosphorous balance is required.

Nitrogen, contained in organic compounds and ammonia, forms nitrate-N and small amounts of nitrite-N when processed in an aerated treatment plant. Several processes affect nitrogen levels within soil after irrigation. Alternate periods of wetting and drying with the presence of organic matter promote reduction to nitrogen gas (denitrification). Plant roots absorb nitrates at varying rates depending on the plant species (see Appendix B), however nitrate is highly mobile, readily leached, and can enter groundwater via deep seepage and surface waters via overland flow and near-surface lateral flow.

Based on the water and nutrient balance (see Appendix B), and assuming 30mg/litre N in the effluent (general case) and 20mg/litre P, a denitrification rate of 20%, with N uptake of 220 kg/ha/year for an appropriate grass cover equivalent to a rye/clover mix and sequential zoned dosing of the irrigation area, a conservative estimate can be made of the nitrogen content in the deep seepage and lateral flow.

For the general case, and without taking into account further expected denitrification below the root zone and in the groundwater (reported to be in the vicinity of 80%), denitrification in the lateral flow (external to the irrigation areas but within the curtilage of the allotment) and plant uptake in the lateral flow, the irrigation area would need to be 299m² for 750 litres/day of effluent for complete attenuation.

The hydraulic component of the water balance has shown that an irrigation area of 250m² would be required to limit surface rainwater flows to episodic rain events.

The nutrient component of the water balance has shown that an irrigation area of 299m² would be required for complete attenuation. 299m² of Total Irrigation Area has been calculated in the Water and Nutrient balance (Appendix B) but for slopes between 10% and 20% the size of the Land Application Area should be increased by 20% (299m² x 1.2 = 358m²).

For a 4-bedroom (equivalent) residence and to 20/30 secondary effluent standard and to satisfactorily attenuate nitrogen on-site and to accommodate the design hydraulic loading and after adjusting for slope, the irrigation area should be at least **358m²** with an application rate of **2.1mm/day**.

^b The peak water balance seepage loss rate is based on being <10% of the measured/estimated hydraulic conductivity (of the limiting horizon) plus a lateral flow component, effluent type and the effects of soil characteristics including profile thickness (flow paths and storage), shrink-swell, dispersivity, soil reaction trend and assumes renovation.



1.3.1.13 Sand filter.

The size of the sand filter and the quality of the sand must comply with the Code of Practice Appendix G.

A sand filter of 15m² would be required for a wastewater flow of 750l/day. For the dosage rate of 50l/m²/day in the sand filter the clay and fine silt content shall be less than 5%, the effective size shall be between 0.4 and 1.0 and the uniformity coefficient shall be less than 4.



1.4 RISK MANAGEMENT & MITIGATION

SEPP (Waters of Victoria) requires that the proposal be assessed on a risk-weighted basis and that cumulative effects be considered.

A multiple barrier approach is used in assessing this development, with components listed below:

1.4.1 Water Usage.

With respect to daily effluent production, the system is oversized. Current best practice allows for a (continuous) daily effluent flow of 750 litres (4-bedroom equivalent residence) as per *Code of Practice - Onsite Wastewater Management, E.P.A. Publication 891.4, July 2016*.

The design flow is unlikely to be continuous and (at least) standard water reduction fixtures are a mandatory requirement under local building codes.

1.4.2 Secondary Treatment.

The LCA recommends AWTS or sand filter and pressure compensated subsurface irrigation. These systems generate a much higher quality of effluent than septic systems.

1.4.3 Block Size.

Many under-performing effluent fields are placed on blocks where area is limited. Limited area can lead to inadequately sized or inappropriately placed effluent fields and a lack of options should the daily effluent volumes increase.

In the subject site, size is not a constraining factor for a 4-bedroom (equivalent) residence.

1.4.4 Management Plan.

Historically, inadequate maintenance has played a major part in the failure of onsite effluent disposal systems. There is a management plan within the LCA (see Appendix D). This plan gives guidance on the implementation of mandatory operation, maintenance and inspection procedures.

1.4.5 Sizing of Treatment Systems.

No specific proprietary treatment plant is recommended, however treatment plants must have current AS/NZS accreditation, which match effluent volumes with plant capacity.

1.4.6 Load Balancing.

Surge flows are possible due to parties, gatherings, etc. Under these conditions the systems may become overwhelmed for a period. This potential problem can be eliminated by installing a plant with a load balancing facility (or equivalent function) which enables short-term storage and sustainable flows to the distribution area over extended time. The load balancing facility also provides temporary storage should the plant fail or if there is a power outage.

1.4.7 Zoned Dosing.

The LCA stipulates that the effluent area is (automatically) irrigated sequentially by zones to promote the creation of transient aerobic and anaerobic soil conditions.

The effluent field is sized conservatively for nitrogen attenuation, using pasture grass (rye/clover eq mix), which has a nitrogen uptake of 220 kg/ha/year. Zoned dosing will increase the efficiency of the field for removing nitrogen from the soil.

Undersized effluent fields are at risk of becoming anaerobic for long periods, with the risk of microbial build-up. This leads to secretion of microbial polysaccharides, which coat soil particles and restrict the ability of the soil to adsorb nutrients and attenuate pathogens. Polysaccharides can also coat the interior of pipes and block drainage holes if drainage is slow due to the field being overloaded with effluent. This can lead to effluent surcharge from the ends of the drainage pipes, forming preferential flow paths through overlying soil and draining overland to nearby surface waters.

The alternating aerobic and anaerobic conditions created by zoned dosing prevent the build-up of microbial polysaccharides, and ensures efficient renovation of effluent.

1.4.8 Pressure Compensated Subsurface Disposal.

Conservatively sized irrigation areas with pressure compensated subsurface disposal and zoned dosing deliver effluent directly into the soil. Under saturated conditions, water flow is downwards in the direction of maximum hydraulic gradient. For a surface flow containing effluent to occur, the effluent would have to rise, *against gravity*, through at least 150mm of soil. Under unsaturated conditions, water flow is multi-directional due to capillary forces and matrix suction. The atmosphere provides a capillary break with capillary forces and matrix suction reducing to zero at the air/soil interface. Gravitational forces outweigh the capillary forces and matrix suction long before the surface is reached. Hence, any surface flow from the effluent area cannot contain any effluent, regardless of the intensity and duration of rain events. Surface flow can only consist of **rainfall** in excess of soil storage capacity and hydraulic conductivity.

Note: For a pressure compensated distribution network to function properly, lines must be placed parallel to contours and/or horizontal for even effluent distribution. This requirement, alone, requires a high level of quality assurance at the design and construction phases.

1.4.9 Oversized Effluent Areas.

Design effluent areas are oversized (designed for mean rainfall) and are based on conservative estimates of renovation and complete attenuation of nitrogen. After amelioration the deep seepage rate will be lower than the hydraulic conductivity of the limiting layer (<10%).

1.4.10 Reserve Areas.

Although reserve areas are not required for subsurface irrigation (*Code of Practice*, 2016), there is sufficient area available for extension of the irrigation area. The reserve area is a spare effluent field, which is left undeveloped, but can be commissioned in the case of increase in daily effluent production due to contingencies through the chain of ownership.

1.4.11 Buffer Distances.

Buffer distances are set out in the *Code of Practice* to allow for attenuation of pathogens and nutrients, should an effluent surcharge occur, either overland or subsurface.

All effluent areas are located at least 170m from surface waters.

The time taken for groundwater to reach the nearest potable surface waters can be estimated by using the Darcy equation (which states that velocity is the product of the hydraulic conductivity and the hydraulic gradient). From the literature, the regional gradient is about 0.002.

Flow times can be estimated for groundwater to flow the 170m (minimum) to the nearest surface waters at this site.

For a conservative basement hydraulic conductivity of 1m/day^c with a hydraulic gradient of 0.002, the time taken for groundwater to flow a distance of 170m is over 230 years.

^c This is a conservatively high figure to demonstrate maximum possible flow rates. A conservatively low figure was used for calculation of effluent application rates (see recommendations) to demonstrate irrigation sustainability.

1.4.12 System Failure.

A properly designed and constructed onsite effluent system consisting of the treatment plant and the irrigation area can suffer degrees of failure.

Failure can take the form of mechanical (plant), accidental (toilet blockages, damaged irrigation lines, high BOD influent), operational (power outage, overloading) and maintenance (failure to check filters, failure to participate in maintenance programme).



1.4.12.1 Mechanical Breakdown.

Mechanical plant breakdown typically involves compressor and pump malfunction causing no aeration and high water levels, respectively. Both of these situations are alarmed (both audible and visual). The proposed plants will benefit from a service contract providing 24 hour repair cycles. If the alarms were ignored (or malfunctioned) and the household continued to produce waste until the load balancing tank and plant capacities were exceeded (at least 3 days), a mixture of septic and raw effluent would back up to the interior of the residence and/or surcharge through the plant hatches. It is difficult to imagine how this outcome could be allowed to manifest. In addition, a plant malfunction with the residents absent could not cause an effluent surcharge because no influent would be produced during this period.

1.4.12.2 Accidents.

Toilet blockages and accidentally damaged irrigation lines could allow localised surface surcharge of treated effluent. This is why minimum buffers to surface waters have been maintained. High BOD influent (e.g. dairy or orange juice) can realise a lesser quality than 20/30 standard for some weeks. Provided the high BOD influent is not continuous, the soils will continue to satisfactorily renovate the effluent.

1.4.12.3 Operational Breakdown.

Operational failures including power outages and transient hydraulic overloading are accommodated by the load balancing facility, as described in Section 1.4.6, above.

1.4.12.4 Maintenance Breakdown.

Maintenance breakdowns such as failure to clean line filters can lead to expensive pump repairs and in extreme cases leakage (of advanced secondary greywater effluent) from the outlet pipe. This leakage would occur in proximity to the dwelling and would be noticed and acted on.

Refusal to participate in the management programme would be acted on by the responsible authority within one maintenance cycle.

AWTSs and pumped systems have mechanical components which can malfunction and will age. The management plan including the maintenance and monitoring programmes are essential to ensure safe onsite effluent disposal.

A prepaid maintenance, monitoring and reporting programme involving a certified and insured entity (i.e. external audit) would ensure safe onsite effluent disposal and reduce the responsible authority's burden of responsibility.

1.4.13 Risk Summary.

With regard to density of development and cumulative risk the assessment has considered risk associated with subsurface flows and surface flows.

In regard to subsurface flows, it is clear that provided the on-site system is adequately designed, constructed, operated and maintained (see items 1.4.1 through 1.4.12.4), the risk to surface and ground waters is negligible. Once the effluent is placed underground, the extraordinary long travel times via ground water to surface waters ensures adequate nutrient attenuation.

In regard to surface flows, it is clear that provided the on-site system is adequately designed, constructed, operated and maintained (see items 1.4.1 through 1.4.12.4), the risk to surface and ground waters is no greater than for a sewered development. Indeed, it could be considered that the risk is less than for a sewered development because there can be no mains failure (because there is no mains).

The LCA recommends a conservative, scientifically based, well founded wastewater management system with inherent multiple barriers of safety.

Cumulative risk from the development is extremely low. The risk of serious or irreversible damage is extremely low.

All requirements of *SEPP (Waters of Victoria)* have been met.


Cardina
ADVERTISED MATERIAL
Planning Application: T210451
Date Prepared: 10 April 2026
This copied document is made available for the purpose of the planning process as set out in the *Planning and Environment Act 1987*. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.



Figure 1.: Land-soil unit A (proposed effluent area) viewed from south to north.


Cardina
ADVERTISED MATERIAL
Planning Application: T210451
Date Prepared: 10 April 2026

This copied document is made available for the purpose of the planning process as set out in the *Planning and Environment Act 1987*. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.

SECTION 2. RECOMMENDATIONS

2.1 APPLICATION

The following recommendations are based on the results of our assessment, and are made in accordance with SEPPs (*Waters of Victoria*), the *Code of Practice - Onsite Wastewater Management*, E.P.A. Publication 891.4, July 2016, AS 1726, and AS/NZS 1547:2012.



They are based on the estimated hydraulic conductivity of the limiting clay materials and are designed to demonstrate the viability of on-site effluent disposal for a 4-bedroom (equivalent) residence and a daily effluent production of up to 750 litres and are considered to be conservative.

2.2 SUBSURFACE IRRIGATION

2.2.1 General.

Based on the results of the water and nutrient balance analysis and considering the prevailing surficial and subsurface conditions including soil profile thickness^d and slope and on condition that adequate site drainage is provided (as described in Section 2.4, below), on-site irrigation systems are appropriate for effluent disposal for land-soil unit A.

2.2.2 Effluent.

Effluent will be generated from a 4-bedroom (equivalent) residence and will include black and grey water (all wastes).

2.2.2.1 Effluent Quality.

Effluent shall be treated to a standard that meets or exceeds the water quality requirements of the 20/30 standard for BOD/SS.

Operation and maintenance shall be carried out in accordance with AS/NZS 1547:2012 and a "system specific" JAS/ANZ accreditation, as appropriate.

2.2.2.2 Effluent Quantity.

The daily effluent volume of 750 litres has been calculated from *Code of Practice - Onsite Wastewater Management*, E.P.A. Publication 891.4, July 2016, Table 4 and assumes a 4-bedroom (equivalent) residence with mains water (equivalent) and WELS-rated water-reduction fixtures and fittings – minimum 4 Stars for dual-flush toilets, shower-flow restrictors, aerator taps, flow/pressure control valves and minimum 3 Stars for all appliances.

2.2.2.3 Load Balancing.

Transient hydraulic loads in excess of the expected daily load may occur (e.g. holidays, entertaining, overnight guests etc). In addition, and in the case of power outages and/or mechanical breakdown, the load balancing tank can act as a temporary storage.

We recommend that the effluent treatment system be fitted with a load balancing facility **or equivalent function** to allow transient high hydraulic loads to be retained and distributed to the irrigation area during periods of low load.

2.2.3 Application Rates and Irrigation Areas.

An irrigation area and application rate has been determined from the results of the water and nutrient balance analyses and AS/NZS 1547:2012, *Appendix M*.

^d Minimum 1400mm required for evapotranspiration-absorption trenches.

2.2.3.1 Hydraulic Loading.

To satisfy the requirement for no surface discharge in the mean wet year, effluent shall be applied at an application rate not exceeding 3.0mm/day.



2.2.3.2 Nutrient Loading.

The requirements of *SEPPs (Waters of Victoria)* would be satisfied with effluent applied at an application rate not exceeding 2.5mm/day.

2.2.3.3 Design Loading.

For a daily (load-balanced) effluent flow of 750 litres and to satisfy the requirement for no surface flows in the mean wet year and on-site attenuation of nutrients (and as adjusted for slope) the effluent shall be applied to an area of 358m² at a rate not exceeding 2.1mm/day.

2.2.4 General Requirements.

For subsurface irrigation, it is assumed that the design, construction, operation and maintenance are carried out in accordance with *AS/NZS1547:2012* and a "system specific" JAS/NZS accreditation, as appropriate.

The irrigation area is to be a dedicated area. To prevent stock and vehicular movements over the area, the effluent area shall be "fenced".

2.2.5 Subsurface Distribution System.

A distribution network design similar to that shown in *AS/NZS1547:2012, Figure M1* is appropriate.

2.2.5.1 Ground Preparation and Excavations.

Preparation of the ground is to include the smoothing of the land application surface by the redistribution of topsoil to form a free draining, at least 200mm deep, loamy surface over the land application area. Pipe excavations shall only be undertaken in drier periods when soil moisture contents are relatively low and when heavy rainfall and storms are not normally expected.

2.2.5.2 Pump System and Pipe works.

Uniform delivery pressure of the effluent throughout the distribution system is essential. Percolation or drip rates shall not vary by more than 10% from the design rate over the whole of the system (i.e. pressure compensated).

The distribution pipes shall be placed coincident with slope contours. The dripper system is to provide an effective even distribution of effluent over the whole of the design area. Line spacing shall be no closer than 1000mm.

2.2.6 Sequential Zoned Irrigation.

The efficiency of irrigation effluent disposal systems can be highly variable. We recommend that as part of the daily irrigation process, the effluent area be irrigated sequentially by zones to promote the creation of transient aerobic and anaerobic soil conditions.

The inspection regime described in Section 2.2.7, below, is to be strictly adhered to.

2.2.7 Inspections and Monitoring.

We recommend that the mandatory testing and reporting as described in the *Code of Practice - Onsite Wastewater Management*, E.P.A. Publication 891.4, July 2016, include an annual (post spring) report on the functioning and integrity of the distribution system and on the functioning and integrity of the cut-off drains, outfall areas and soil media.

It is expected that the frequency of inspections and monitoring will intensify as systems age.

2.2.8 Soil Renovation.

Soils are non-dispersive and require amelioration. To maintain water-stable peds (under irrigation with saline effluent) and to improve the subsoil hydraulic conductivity, soil renovation in the form of gypsum application is recommended. Gypsum shall be broadcast over the effluent area at the rate of 0.5kg/m².



2.2.9 Effects of Irrigation on Existing Trees.

A study^c by Dr Nick O'Brien (Melbourne University) regarding impacts of 20/30 standard irrigation on remnant *Eucalyptus* forest at Ringwood North has shown that trees would not be adversely affected by subsurface 20/30 standard irrigation provided the distribution slots did not exceed about 150mm in depth.

2.3 RESERVE AREA

The expected design life of fifteen years may vary due to construction and maintenance vagaries and possible effluent volume increases through the chain of ownership.

There is sufficient available area for extension/duplication of the effluent area.

2.4 SITE DRAINAGE.

Our recommendations for on-site effluent disposal have allowed for incident rainfall only (not surface flow or lateral subsurface flow) and are conditional on the installation of a cut-off drain, which shall be placed upslope of the disposal area. Care shall be taken to ensure that the intercepted and diverted surface waters are discharged well away and down slope of the disposal field. Locations of the cut-off drains and a drain detail are shown in Drawings 2 and MP1.

The owner shall also ensure that any upslope site works do not divert and/or concentrate surface water flows onto the disposal area.

2.5 BUFFER distances

The water balance analysis has shown that potential surface (rain water) flows from the effluent area would be restricted to episodic events. The estimated hydraulic properties of the upper soil materials and hydraulic gradient have been used to evaluate (via Darcy's Law) the buffer distances with respect to subsurface flows.

Our risk analysis and evaluation has shown that the default setback distances given in *Code of Practice - Onsite Wastewater Management*, E.P.A. Publication 891.4, July 2016, Table 5 are conservative and can be applied without amendment, as shown in Drawing 2.

For a building located downslope of an effluent field, your engineer shall evaluate the integrity of building foundations with respect to the assigned buffer distance.

2.6 SUMMARY OF RECOMMENDATIONS

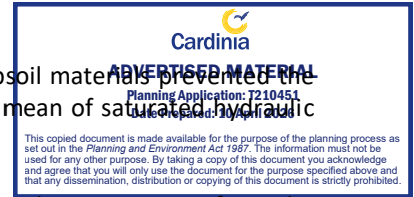
Our capability assessment has shown that at least one rational and sustainable on-site effluent disposal method (20/30 standard subsurface irrigation) is appropriate for the proposed development, subject to specific design criteria, described above.

A management plan is presented in Appendix D, to this report.

Zoltan Lorincz M.App.Sc.
PRINCIPAL SOIL SCIENTIST
LAND CAPABILITY ASSESSMENT VICTORIA

^c Dr Nick O'Brien (Research Fellow, School of Botany, University of Melbourne, 2000: *Comment on the irrigation of remnant native vegetation with municipal effluent associated with the proposed subdivision at the rear of 111 Hall Road, North Ringwood.*

APPENDIX A1
SOIL PERMEABILITY



The occurrence of transient and seasonally occurring free water in the subsoil materials prevented the acquisition of sufficient hydraulic data for determination of the geometric mean of saturated hydraulic conductivity.

Note: The relatively high soil moisture content at the time of testing was due to seepage from the topsoil into the test holes and high moisture content from recent rainfalls. This transient high soil moisture impacts on the test method only and does not reflect in any way on the suitability of the site for the sustainable onsite attenuation of waste water – see AS/NZS 1547:2012, Appendix G.

A conservative estimate of permeability has been deduced as follows (see Code 3.6.1.):-

Profile analysis in accordance with AS/NZS 1547:2012 and our laboratory determined dispersion and swell potential shows the residual soils to be moderately structured, non-dispersive, low-swelling light clays (Type 5b soils) with saturated hydraulic conductivity between 0.06m/day to 0.12m/day.

For the limiting residual soils we have adopted an estimated saturated hydraulic conductivity of 0.08m/day.

Peak deep seepage is conservatively estimated at 4.7mm/day. Average daily seepage rate is 3.6mm.

The residual soils will control effluent seepage rates with respect to determining the required irrigation area and to restrict surface flows to episodic events.

SOIL TEST RESULTS

Project: Gembrook			Date of sampling: 29/07/21			Date of Lab test:				BH: 1
horizon (cm)	pH	EC _{1:5}	EC _{se}	disp 10 min	disp 2 hours	disp total	Emers 2 hours	Emers 20 hours	free swell %	texture
0-20				0	0	0	8	8		silt
20-35				0	0	0	8	8		clayey silt
35-50				0	0	0	8	8		clayey silt
60-90				0	0	0	4,5,6	4,5,6		silty light clay
110-140				0	0	0	4,5,6	4,5,6		silty light clay

Project: Gembrook			Date of sampling: 29/07/21			Date of Lab test:				BH: 2
horizon (cm)	pH	EC _{1:5}	EC _{se}	disp 10 min	disp 2 hours	disp total	Emers 2 hours	Emers 20 hours	free swell %	texture
0-30				0	0	0	8	8		silt
30-45				0	0	0	4,5,6	4,5,6		clayey silt
50-80				0	0	0	4,5,6	4,5,6		clayey silt
80-110				0	0	0	4,5,6	4,5,6		clayey silt
120-140				0	0	0	4,5,6	4,5,6		silty light clay

Project: Gembrook			Date of sampling: 29/07/21			Date of Lab test:				BH: 3
horizon (cm)	pH	EC _{1.5}	EC _{5ε}	disp 10 min	disp 2 hours	disp total	Emers 2 hours	Emers 20 hours	free swell %	texture
0-30	5	0.01	0.1	0	0	0	8	8	0	clayey silt
40-70	5.6	0.01	0.1	0	0	0	4,5,6	4,5,6	0	clayey silt
80-110	5.6	0.01	0.09	0	0	0	4,5,6	4,5,6	20	silty light clay
130-150	5.7	0.01	0.1	0	0	0	4,5,6	4,5,6	20	clayey silt



ADVERTISED MATERIAL

Planning Application: T210451

Date Prepared: 10 April 2026

This copied document is made available for the purpose of the planning process as set out in the Planning and Environment Act 1987. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.

**APPENDIX A2
SOIL PROFILE PHOTOGRAPHS**



BOREHOLE 1

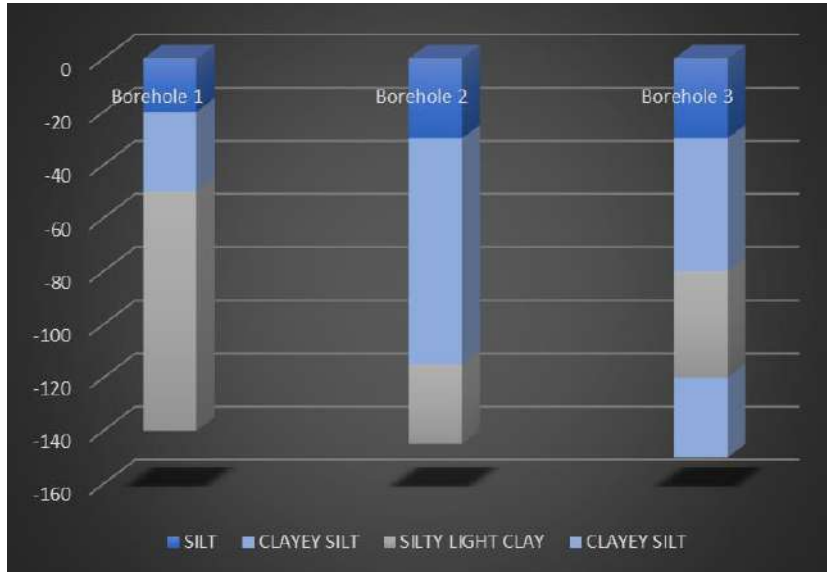


BOREHOLE 2



BOREHOLE 3

APPENDIX A3 LOGS OF BOREHOLES



ADVERTISED MATERIAL

Planning Application: T210451
Date Prepared: 10 April 2026

This copied document is made available for the purpose of the planning process as set out in the *Planning and Environment Act 1987*. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.

APPENDIX B

WATER AND NUTRIENT BALANCE

Land Capability Assessment Victoria

Spreadsheet used with permission

LCA12082021

WATER/NITROGEN BALANCE (20/30 irrigation): With no wet month storage.

Rainfall Station: Beaconsfield Upper/ Evaporation Station: Scoresby Research Institute

Location: Gembrook
Date: August, 2021
Client: Amy Volta

ITEM	UNIT	#	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
Days in month:		D	31	28	31	30	31	30	31	31	30	31	30	31	365
Evaporation (Mean)	mm	A	174	154	124	81	53	39	43	59	78	105	132	155	1197
Rainfall (mean)	mm	B1	67	61	70	81	89	88	88	97	98	98	92	80	1008
Effective rainfall	mm	B2	50	46	52	61	67	66	66	73	73	74	69	60	756
Peak seepage Loss ¹	mm	B3	146	132	146	141	146	141	146	146	141	146	141	146	1716
Evapotranspiration (XA)	mm	C1	78	69	56	36	24	18	20	27	35	47	59	70	539
Waste Loading (C1+B3-B2)	mm	C2	174	155	149	117	103	93	99	99	103	119	132	156	1498
Net evaporation from lagoons (10(0.8A-B1)xlagoon area(ha)))	L	NL	0	0	0	0	0	0	0	0	0	0	0	0	0
Volume of Wastewater	L	E	23250	21000	23250	22500	23250	22500	23250	23250	22500	23250	22500	23250	273750
Total Irrigation Water (E-NL)/G	mm	F	93	84	93	90	93	90	93	93	90	93	90	93	1095
Irrigation Area (E/C2) annual.	m ²	G													250
Surcharge	mm	H	-81	-71	-56	-27	-10	-3	-6	-6	-13	-26	-42	-63	0
Actual seepage loss	mm	J	65	60	89	114	136	138	140	139	128	119	99	83	1498
Direct Crop Coefficient:		I	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	Shade:
Rainfall Retained:	75%	K	1. Seepage loss (peak) equals deep seepage plus lateral flow : 4.7mm												
Lagoon Area:	0 ha	L	CROP FACTOR												
Wastewater (Irrigation):	750 L	M	0.7	0.7	0.7	0.6	0.5	0.45	0.4	0.45	0.55	0.65	0.7	0.7	Pasture:
Seepage Loss (Peak):	4.7 mm	N	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	Shade:
Irrig'n Area (No storage):	250 m ²	P2	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	Buffalo:
Application Rate:	3.0 mm	Q	1	1	1	1	1	1	1	1	1	1	1	1	Woodlot
Nitrogen in Effluent:	30 mg/L	R	NITROGEN UPTAKE:												
Denitrification Rate:	20%	S													
Plant Uptake:	220 kg/ha/yr	T													
Average daily seepage:	3.6 mm	U													
Annual N load:	6.57 kg/yr	V													
Area for N uptake:	299 m ²	W													
Application Rate:	2.5 mm	X													
Irrig'n Area (slopes 10%-20%)	358 m ²	Z													
Application Rate:	2.1 mm	Z1													

Species:	Kg/ha.yr	pH	Species:	Kg/ha.yr	pH	Species:	Kg/ha.yr	pH
Ryegrass	200	5.6-8.5	Bent grass	170	5.6-6.9	Grapes	200	6.1-7.9
Eucalyptus	90	5.6-6.9	Couch grass	280	6.1-6.9	Lemons	90	6.1-6.9
Lucerne	220	6.1-7.9	Clover	180	6.1-6.9	C cunn'a	220	6.1-7.9
Tall fescue	150-320	6.1-6.9	Buffalo (soft)	150-320	5.5-7.5	Pradiata	150	5.6-6.9
Rye/clover	220		Sorghum	90	5.6-6.9	Poplars	115	5.6-8.5

Increase land application area by 20%.

RAINFALL DATA

Station: Beaconsfield Upper
 Number: 86261
 Opened: 1968
 Now: Open
Lat: 37.98° S
 Lon: 145.42° E
 Elevation: 196 m

Statistic	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Mean	66.8	60.8	69.7	81.1	89.2	88.0	88.4	97.1	97.5	98.2	91.8	79.7	1020.5
Lowest	2.5	0.0	13.7	20.1	15.8	17.4	27.3	34.8	44.0	33.2	0.0	0.0	589.1
5th %ile	13.5	7.6	18.4	29.3	25.3	32.3	34.6	38.6	48.0	39.3	30.7	5.1	714.1
10th %ile	27.1	8.0	28.4	33.7	30.6	46.8	41.8	52.0	51.9	47.4	43.4	19.5	805.7
Median	65.7	43.2	64.4	71.4	90.6	80.0	77.0	96.3	84.6	97.3	93.5	80.4	1030.2
90th %ile	116.3	155.8	110.9	145.4	148.6	126.3	141.4	143.4	159.1	159.4	135.2	125.9	1222.7
95th %ile	125.9	179.4	126.8	171.2	176.2	159.3	144.6	148.8	199.9	162.7	158.5	164.9	1253.0
Highest	151.7	237.4	234.4	191.6	190.5	179.8	200.0	161.9	208.6	213.9	201.1	205.6	1323.9

ADVERTISED MATERIAL
 Planning Application: T210451
 Date Prepared: 10 April 2026

This copied document is made available for the purpose of the planning process as set out in the Planning and Environment Act 1987. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.

APPENDIX C

**LAND CAPABILITY ASSESSMENT TABLE
(Non Potable Water Supply Catchments)**


Cardinia
ADVERTISED MATERIAL

**AMELIORATIVE MEASURES¹
& RISK REDUCTION**
Date Prepared: 10 April 2026

This copied document is made available for the purpose of the planning process as set out in the Conditions and Encumbrances of the relevant planning permit and as a guide only. The information must not be used for any other purpose. Full reserve area available. Non-limiting for trenches & beds. Full reserve area available. Non-limiting for subsurface irrigation.

LAND FEATURE	LAND CAPABILITY RISK RATING				AMELIORATIVE MEASURES ¹ & RISK REDUCTION
	LOW	MEDIUM	HIGH	LIMITING	
Available land for LAA	Exceeds LAA and duplicate LAA requirements	Meets LAA and duplicate LAA requirements	Meets LAA and partial duplicate LAA requirements	Insufficient LAA area	Non-limiting for trenches & beds. Full reserve area available. Non-limiting for subsurface irrigation.
Aspect	North, north-east and north-west	East, west, south-east, south-west	South	South, full shade	Northern aspect.
Exposure	Full sun and/or high wind or minimal shading	Dappled light (partial shade)	Limited light, little wind to heavily shaded all day	Perpetual shade	Partial shade from nearby trees.
Slope Form	Convex or divergent side slopes	Straight sided slopes	Concave or convergent side slopes	Locally depressed	Free draining, however finished LAA surface requires smoothing and redistribution of topsoil.
Slope gradient:					
Trenches and beds	<5%	5% to 10%	10% to 15%	>15%	7.5%-14%: High risk factor for trenches
Subsurface irrigation	<10%	10% to 30%	30% to 40%	>40%	7.5%-14%: Non-limiting for subsurface irrigation
Site drainage: runoff/run-on	LAA backs onto crest or ridge	Moderate likelihood	High likelihood	Cut-off drain not possible	Cut-off drain required upslope.
Landslip ¹	Potential	Potential	Potential	Existing	Unremarkable.
Erosion potential	Low	Moderate	High	No practical amelioration	All runoff to be dispersed without concentrating flows. LAA stabilised with gypsum (non-dispersive soils)
Flood/inundation	Never		<1%AEP	>5% AEP	Unremarkable.
Distance to surface waters (m)	Buffer distance complies with Code requirements		Buffer distance does not comply with Code requirements	Reduce buffer distance not acceptable	170 metres to watercourse.
Distance to groundwater bores (m)	No bores on site or within a significant distance	Buffer distances comply with Code	Buffer distances do not comply with Code	No suitable treatment method	No bores within a significant distance (520m).
Vegetation	Plentiful/healthy vegetation	Moderate vegetation	Sparse or no vegetation	Propagation not possible	Proposed irrigation area requires-sowing with a rye/clover mix.
Depth to water table (potentiometric) (m)	>2	2 to 1.5	<1.5	Surface	Water table deeper than 10m.
Depth to water table (seasonal perched) (m)	>1.5	<0.5	0.5 to 1.5	Surface	Perching unlikely. (Install cut-off drain and design for limiting layer)
Rainfall ² (Mean) (mm)	<500	500-750	750-1500	>1500	1020mm. High risk factor for trench and beds. Non-limiting for subsurface irrigation - Design by water balance.
Pan evaporation (mean) (mm)	>1250	1000 to 1250	750 to 1000	<750	1197mm. Design by water balance.
SOIL PROFILE CHARACTERISTICS					
Structure	High or moderately structured	Weakly structured	Structureless, massive or hardpan		Maintain structure by gypsum application.
Fill materials	Nil or mapped good quality topsoil	Mapped variable depth and quality materials	Variable quality and/or uncontrolled filling	Uncontrolled poor quality/unsuitable filling	No fill present.
Thickness: (m)					
Trenches and beds	>1.4		<1.4	<1.2	Non-limiting for trenches and beds
Subsurface irrigation	1.5+	1.0 to 1.5	0.75-1.0	<0.75	Non-limiting for irrigation systems.
Permeability ³ (limiting horizon) (m/day)	0.15-0.3	0.03-0.15 0.3-0.6	0.01-0.03 0.6-3.0	>3.0 <0.03	Non-limiting for trenches. Non-limiting for irrigation.
Permeability ⁴ (buffer evaluation) (m/day)	<0.3	0.3-3	3 to 5	>5.0	Evaluate flow times via Darcy's Law (assume 1m/day for residual light clays)
Stoniness (%)	<10	10 to 20	>20		Unremarkable
Emerson number	4,5,6,8	7	2, 3	1	Non-dispersive soils. Apply gypsum (at the rate of 0.5kg/m ²) to improve ksat and to maintain stable peds.
Dispersion Index	0	1-8	8-15	>15	Non-dispersive soils. Apply gypsum (at the rate of 0.5kg/m ²) to improve ksat and to maintain stable peds.
Reaction trend (pH)	5.5 to 8	4.5 to 5.5	<4.5>8		Below the ideal range for grasses.
E.C. (dS/m)	<0.8	0.8 to 2	>2	>2.0	Non-restrictive
Sodicity (ESP) (%)	<6	6 to 8	>8	>14	Non-sodic (inferred from EC, FS, pH and DI) Apply gypsum (at the rate of 0.5kg/m ²)
Free swell (%)	<30	30-80	80-120	>120	0-20%. Low swelling clay fraction.

There are high risk factors for primary effluent trench systems (slope gradient, rainfall).

There are no limiting factors for secondary effluent subsurface irrigation.

Evaluation of buffer distances via Darcy's Law shows EPA default buffer distances to be adequate.

Hence, in terms of the design engineering and management inputs required for sustainable on-site effluent disposal are rational and easily achieved.

¹ Landslip assessment based on proposed hydraulic loading, slope, profile characteristics and past and present land use.

² Mean monthly rainfalls used in water balance analyses.

³ Saturated hydraulic conductivity estimated from data base and laboratory tests.

⁴ Saturated hydraulic conductivity estimated from AS/NZS1547:2012 and data base.



ADVERTISED MATERIAL

Planning Application: T210451

Date Prepared: 10 April 2026

This copied document is made available for the purpose of the planning process as set out in the *Planning and Environment Act 1987*. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.

APPENDIX D
MANAGEMENT PLAN

**MANAGEMENT PLAN
FOR
ON-SITE EFFLUENT DISPOSAL VIA SUBSURFACE IRRIGATION
AT
61 LIVIO DRIVE, GEMBROOK VIC 3783**

1. INTRODUCTION

This document identifies the significant land-soil unit constraints (as identified in LCA12082021) and their management and day-to-day operation and management of the on-site effluent system.

This management plan is to be read in conjunction with our land capability assessment for this land-soil unit (LCA12082021).

2. SIGNIFICANT LAND-SOIL UNIT CONSTRAINTS

2.1 Allotment Size. The day-to-day operation and management of on-site effluent systems, as described below, is not constrained by lot size or geometry.

Although all requirements of *SEPPs* have been met or exceeded through conservative design, prudence dictates that individual lot owners assiduously follow the management programme given in Section 4, below.

2.2 Nitrogen Attenuation. To reduce nitrates to insignificant levels, the effluent should not contain more than 30mg/litre total nitrogen.

Provided the irrigation areas are at least as large as those required to satisfy the nitrogen loading, as described in LCA12082021 Sections 1.3.1.12 and 2.2.3, and that the (specified) grass is cut and (periodically) harvested, nitrogen will be attenuated on-site.

2.3 Hydraulic Conductivity. The soils of this site are non-dispersive, low-swelling light clays with a low swelling potential and a medium hydraulic conductivity. The hydraulic conductivity is significantly influenced by soil structure, soil colloid stability and swell characteristics. Breakdown or reduction of these soil parameters over time may manifest as reduced performance of the irrigation system. The monitoring and inspection regime detailed in Section 4.7.2, below, should be adhered to.

2.4 Site Drainage. Our recommendations for on-site effluent disposal have allowed for incident rainfall only (not surface flow or lateral subsurface flow) and are conditional on the installation of a cut-off drain, which should be placed upslope of the disposal area. Care should be taken to ensure that the intercepted and diverted surface waters are discharged well away and down slope of the disposal field (see LCA12082021 Drawing 2).

This diverted water should also be discharged in a manner to avoid scouring and/or erosion. It may be appropriate to discharge the water onto a stone/rubble dissipation area.

The owner should also ensure that any upslope land-soil unit works do not divert and/or concentrate surface water flows onto the disposal area.

2.5 Vegetation. The effluent disposal areas have been sized via water and nutrient balance analyses utilising crop factors for pasture (rye/clover mix) under conditions of partial shade.

3. THE ONSITE EFFLUENT SYSTEM

The onsite effluent system consists of the influent (kitchen, laundry, bathrooms and toilets), a load balancing tank/facility, the treatment plant (a device to treat the effluent to at least the 20/30 standard), the irrigation area including effluent distribution system (delivery pipes and drippers), prescribed irrigation area vegetation, associated infrastructure (cut-off drains, outfall areas, fencing), a service and maintenance programme and on-going management.



4. MANAGEMENT

The owner is required to understand (and ensure that tenants understand) that sustainable operation of the onsite effluent system is not automatic. Sustainable operation requires on-going management, as outlined below.

4.1 Effluent. Effluent will be generated from a 4-bedroom (equivalent) residence and will include black and grey water (all wastes).

4.1.2 Effluent Quality. Effluent should be treated to a standard that meets or exceeds the water quality requirements of the 20/30 standard.

4.1.3 Effluent Quantity. The daily effluent (load-balanced) volume of 750 litres has been calculated from *Code of Practice - Onsite Wastewater Management*, E.P.A. Publication 891.4, July 2016, Table 4 and assumes a 4-bedroom (equivalent) residence with mains water (equivalent) and WELS-rated water-reduction fixtures and fittings – minimum 4 Stars for dual-flush toilets, shower-flow restrictors, aerator taps, flow/pressure control valves and minimum 3 Stars for all appliances.

4.2 Treatment Plant. For subsurface irrigation, it is assumed that the design, construction, operation and maintenance are carried out in accordance with *AS/NZS1547:2012* and a “system specific” JAS/NZS accreditation.

4.3 Irrigation Area. The irrigation area has been determined from the results of the water and nutrient balance analyses and *AS/NZS 1547:2012, Appendix M*.

4.3.1 Effluent Area Requirement. For a daily effluent flow of 750 litres and to satisfy the requirement for no surface rainwater flow in the mean wet year and on-site attenuation of nutrients the effluent should be applied to an irrigation area of 358m² (after adjusting for slope).

Effluent distribution is as detailed in Section 4.3.2, below.

Any landscaping and/or planting proposals require endorsement from the Cardinia Shire Council.

4.3.2 Distribution System. The distribution system must achieve controlled and uniform dosing over the irrigation area. A small volume of treated effluent should be dosed at predetermined time intervals throughout the day via a pressurised piping network that achieves uniform distribution over the entire irrigation area.

Uniform delivery pressure of the effluent throughout the distribution system is essential. Drip rates should not vary by more than 10% from the design rate over the whole of the system.

To minimise uneven post-dripper seepage, the distribution pipes must be placed parallel with slope contours.

Line spacing shall be not closer than 1000mm under any circumstances.

To facilitate the creation of transient aerobic and anaerobic soil conditions we recommend that as part of the daily irrigation process, the effluent area be irrigated sequentially by zones.

4.3.3. Soil Renovation: To maintain water-stable peds (under irrigation with saline effluent), soil renovation on the form of gypsum application is recommended. Gypsum shall be broadcast over the effluent area at the rate of 0.50kg/m² and reapplied every 4 years.

4.3.4 Buffer Distances. The water balance analysis has shown that potential surface rainwater flows from the effluent area would be restricted to episodic events.

The estimated hydraulic properties of the upper soil materials and hydraulic gradient (equivalent to the ground slope and regional gradients) have been used to evaluate (via Darcy's Law) the buffer distances with respect to subsurface flows.

Our analysis and evaluation have shown that the default setback distances given in *Code of Practice - Onsite Wastewater Management*, E.P.A. Publication 891.4, July 2016, Table 5 are conservative and can be applied without amendment.

For a building located downslope of an effluent field, your engineer should evaluate the integrity of building foundations with respect to the assigned buffer distance.

Buffer distances are to be applied exclusive of the irrigation area.

4.3.5 Buffer Planting. All downslope (Title inclusive) buffers may be required to filter and renovate abnormal surface discharges. Hence, they are to be maintained with existing or equivalent groundcover vegetation.

4.3.6 Buffer Trafficking. On all allotments, buffer trafficking should be minimised to avoid damage to vegetation and/or rutting of the surface soils.

Traffic should be restricted to 'turf' wheeled mowing equipment and to maintenance, monitoring and inspections by pedestrians, where possible.

4.4 Vegetation. The system design for on-site disposal includes the planting and maintenance of suitable vegetation, as specified in LCA12082021 and/or similar documents.

Specifically, this irrigation area has been sized (in part) utilising crop factors and annual nitrogen uptake for a rye/clover eq mix.

The grass needs to be harvested (mown and periodically removed from the irrigation area).

Where a variation to recommended grass species is proposed, it must be demonstrated that the nitrogen uptake and crop factors (as specified in LCA12082021 Appendix B – water and nutrient balance) are met or exceeded.

4.5 Verification. The Council is to be satisfied that the effluent system has been constructed as designed with appropriate engineering endorsement and underwriting.

4.6 Associated Infrastructure. The following items are an integral part of the onsite effluent system.

4.6.1 Cut-off drains. Cut-off drains are designed to prevent surface water flows from entering the effluent area. They should be constructed and placed around the effluent area, as shown in Drawing 2.

4.6.2 Outfall areas. All pipe outfalls should be at grade and designed to eliminate scour and erosion.

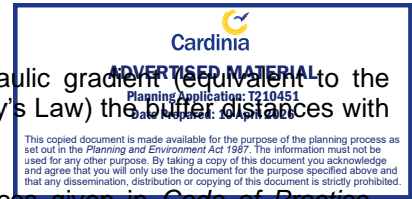
A grassed outfall would normally be adequate. However, should monitoring and inspections reveal rill or scour formation, the outfall will need to be constructed so that energy is satisfactorily dissipated.

Should this situation occur, professional advice is to be sought.

4.6.3 Fencing. The disposal area is to be a dedicated area. Adequate fencing must be provided to prevent stock, excessive pedestrian and vehicular movements over the area.

4.7 Service and Maintenance Programme. The minimum requirements for servicing and maintenance are set out in the relevant JAS/ANZ accreditation and the manufacturer's recommendations.

4.7.1 Treatment Plant. Aerated treatment plants and sand filters should be serviced at least one time per year (or as recommended in the JAS/ANZ accreditation) and the effluent should be sampled and analysed as required by the JAS/ANZ accreditation). The local authority is to ensure compliance.

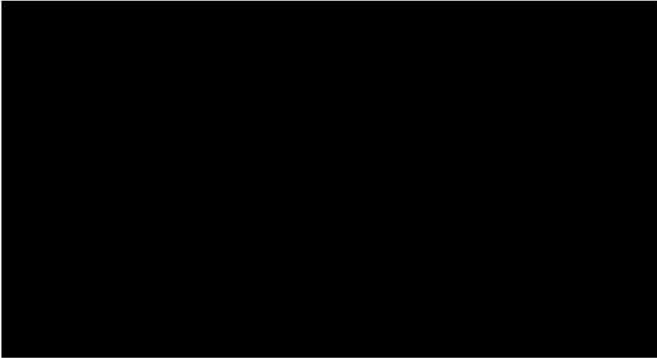


The manufacturer's recommendations are to be followed. Generally, low phosphorous and low sodium (liquid) detergents should be used. Plastics and other non-degradable items should not be placed into the tanks. Paints, hydrocarbons, poisons etc should not be disposed of in sinks or toilets. Advice from a plumber should be obtained prior to using bund cleaners, chemicals and conditioners. It is important to ensure that grease does not accumulate in the tanks or pipes. Grease and similar products should be disposed of by methods other than via the on-site effluent system.

4.7.2 Monitoring and Inspections. We recommend that the mandatory testing and reporting as described in the *Code of Practice - Onsite Wastewater Management*, E.P.A. Publication 891.4, July 2016, include an annual (post spring) and post periods of heavy and/or prolonged rainfall report on the functioning and integrity of the distribution system and on the functioning and integrity of the cut-off drains, outfall areas and soil media.

The effluent areas should be regularly inspected for excessively wet areas and vegetation integrity.

The inspection regime described in LCA12082021, Section 2.2.7, should be strictly adhered to.




ADVERTISED MATERIAL
Planning Application: T210451
Date Prepared: 10 April 2026

This copied document is made available for the purpose of the planning process as set out in the *Planning and Environment Act 1987*. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.

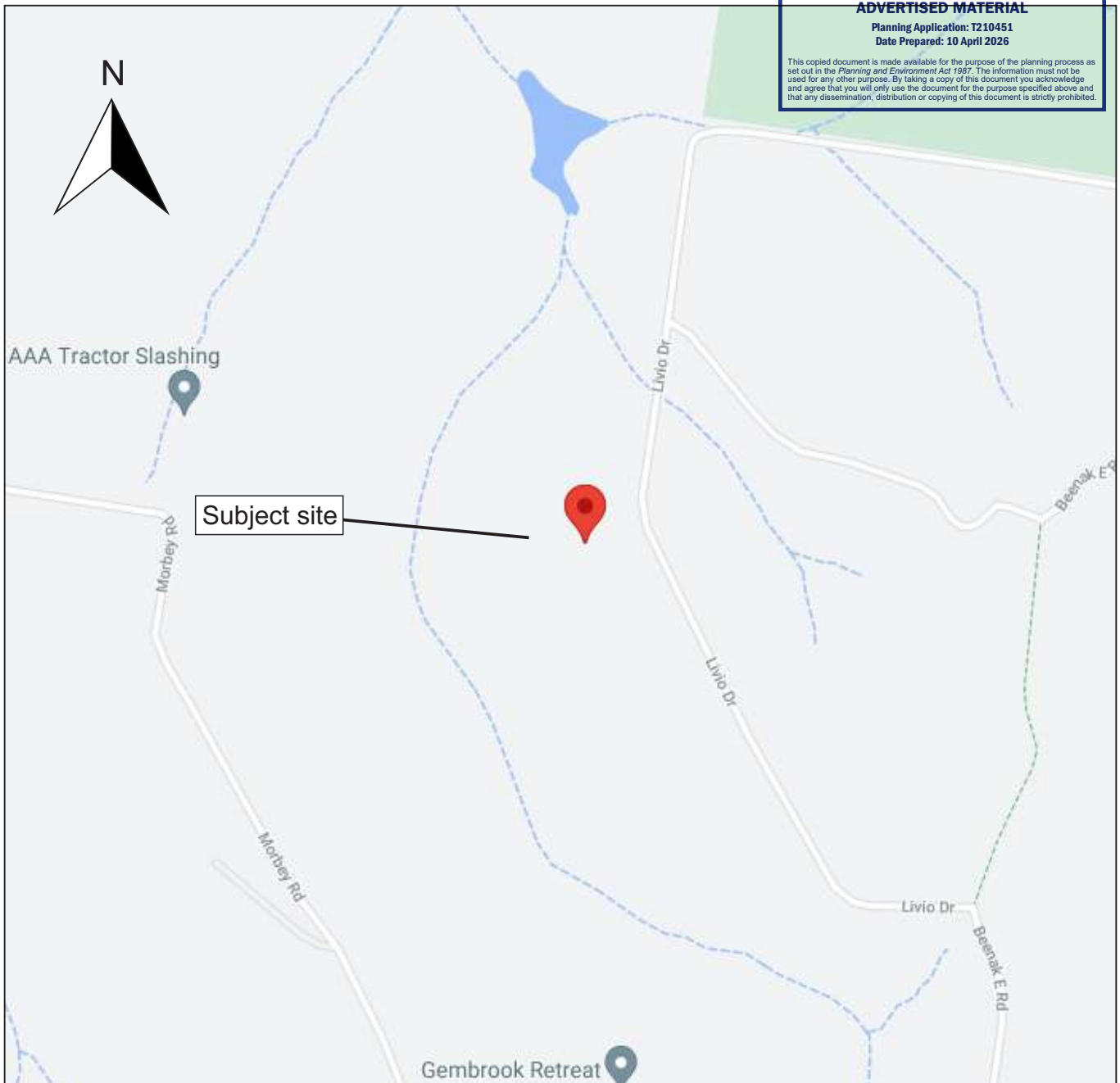


ADVERTISED MATERIAL

Planning Application: T210451

Date Prepared: 10 April 2026

This copied document is made available for the purpose of the planning process as set out in the *Planning and Environment Act 1987*. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.



LOCATION OF SUBJECT SITE

61 LIVIO DRIVE, GEMBROOK VIC 3783

AMY VOLTA

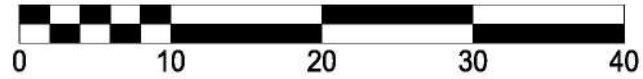
Drawn: Zoltan Lorincz

Report number: LCA12082021

Date: AUGUST 2021.

Drawing number: 1

358m² PRIMARY
IRRIGATION AREA



LOCATION OF PROPOSED
DEVELOPMENT SHOWING
CONTOURS

61 LIVIO DRIVE, GEMBROOK
VIC 3783



DRAWN: LAND CAPABILITY
ASSESSMENT VICTORIA

DATE: AUGUST 2021

REPORT NUMBER:
LCA12082021

DRAWING NUMBER: 2

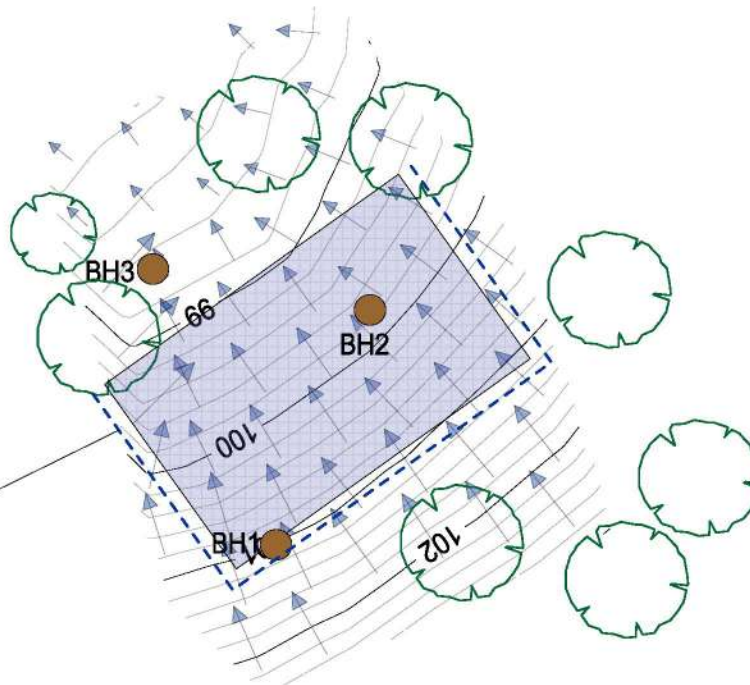
SCALE:
1:500



ADVERTISED MATERIAL

Planning Application: T210451
Date Prepared: 10 April 2026

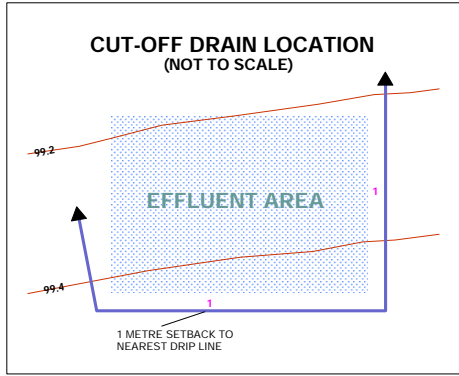
This copied document is made available for the purpose of the planning process as set out in the *Planning and Environment Act 1987*. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.



CUT-OFF DRAIN
SEE DRAWING MP1

**SUFFICIENT AREA EXISTS FOR
DUPLICATION OF EFFLUENT
IRRIGATION AREA DUE TO
CONTINGENCIES THROUGH
THE CHAIN OF OWNERSHIP**

CONTOURS ARE TO LOCAL DATUM (NOT TO AHD)

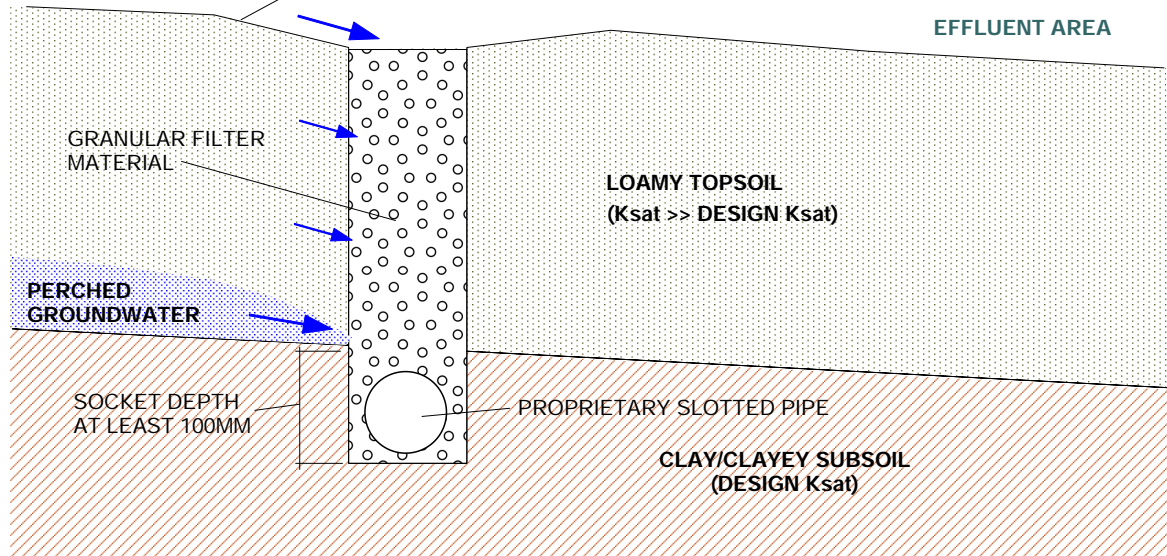


NOTE: CUT-OFF DRAIN LOCATION IS SCHEMATIC ONLY. FINAL LOCATION TO BE DETERMINED BY DESIGN ENGINEER AS PART OF SITE DRAINAGE DESIGN.

Cardina
ADVERTISED MATERIAL
 Planning Application: T210451
 Date Prepared: 10 April 2026

This copied document is made available for the purpose of the planning process as set out in the Planning and Environment Act 1987. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.

SURFACE REGRADED BY CUTTING TO FACILITATE COLLECTION OF SURFACE FLOWS - DEGREE OF CUT SLOPE LIMITED BY REQUIREMENTS FOR SAFE & EFFICIENT MOWING/MAINTENANCE



NOTES:

1. DRAIN TO BE DESIGNED, CONSTRUCTED & MAINTAINED TO ENSURE THAT NO SURFACE & PERCHED GROUNDWATER FLOWS ENTER THE IRRIGATION AREA.
2. DRAIN TO BE LOCATED ON ALL UPSLOPE SIDES OF IRRIGATION AREA (NO CLOSER THAN 1M FROM NEAREST SUBSURFACE DISTRIBUTION LINE).
3. DRAIN TO HAVE UNSPECIFIED FALL.
4. MINIMUM SOCKET DEPTH OF 100MM INTO CLAY SUBSOIL (WHERE ENCOUNTERED) OR AT LEAST 200MM DEEP.
5. DRAIN CROSS SECTIONAL AREA RELATED TO DESIGN FLOWS AS DETERMINED BY A SUITABLY QUALIFIED AND EXPERIENCED ENGINEER.
6. OFF-SITE DRAIN OUTFALL TO LEGAL POINT OF DISCHARGE SUBJECT TO LOCAL AUTHORITY REQUIREMENTS.
7. ON-SITE DRAIN OUTFALL TO INCLUDE APPROPRIATE ENERGY DISSIPATION TO AVOID EROSION.
8. ALL DRAINS AND OUTFALL AREAS SUBJECT TO POST-SPRING INSPECTION.

NOTE: DRAWING NOT TO BE USED FOR SET-OUT PURPOSES

CUT-OFF DRAIN DETAIL FOR 20/30 STANDARD EFFLUENT IRRIGATION FIELDS

61 LIVIO DRIVE, GEMBROOK VIC 3783

AMY VOLTA

Scale: 1:10 (Approximately)

Drawn: P.R.W.

Report Number: LCA12082021

Contour Interval: N/A

Date: AUGUST 2021

Drawing Number: MP1

SITE INFORMATION	
SUBJECT SITE:	Lot 1 61 LIVIO DRIVE GEMBROOK 3783
SUBJECT SITE AREA:	32470 m ²
Lot & Plan Number:	Lot 1 TP100357
LOCAL GOVERNMENT:	CARDINIA
COUNCIL PROPERTY NUMBER:	249680050
PLANNING ZONE:	RURAL CONSERVATION ZONE - SCHEDULE 1 (RCZ1)
PLANNING OVERLAYS:	BUSHFIRE MANAGEMENT OVERLAY (BMO) ENVIRONMENTAL SIGNIFICANCE OVERLAY - SCHEDULE 1 (ES01)
BUSHFIRE ATTACK LEVEL (BAL):	BAL 12.5
APPROX. ELEVATION:	250m
CLIMATE ZONE:	6
WIND CLASSIFICATION:	N2
SOIL CLASSIFICATION:	T8D
MELWAY REF.:	299 EB

NOTE:

- ALL DRAWINGS TO BE READ IN CONJUNCTION WITH RELEVANT STRUCTURAL ENGINEERS REPORT, BUILDING THERMAL PERFORMANCE REPORT, SOIL REPORT, GEOTECHNICAL REPORT, & ANY OTHER RELEVANT CONSULTING REPORT. IF ANY DISCREPANCIES ARE FOUND SEEK CLARIFICATION
- ALL BUILDING WORKS TO COMPLY WITH BUT NOT LIMITED TO:
 - BUILDING ACT 1993
 - BUILDING REGULATIONS 2018
 - CURRENT NATIONAL CONSTRUCTION CODE (NCC or BCA)
 - TIMBER CONSTRUCTION AS1844 - 2021
 - CONCRETE SLAB & FOOTINGS CONSTRUCTION AS3601 - 2011
 - CONSTRUCTION OF BUILDINGS IN BUSHFIRE PRONE AREA AS3959 - 2018
 - RELEVANT AUSTRALIAN STANDARDS
- THE BUILDER & SUBCONTRACTORS MUST CHECK ALL DIMENSIONS, SETBACKS, LEVELS, SPECIFICATIONS & ALL OTHER RELEVANT DOCUMENTATION PRIOR TO THE COMMENCEMENT OF ANY WORK.
- THE BUILDER SHALL TAKE ALL STEPS NECESSARY TO ENSURE THE STABILITY & GENERAL WATER TIGHTNESS OF ALL NEW & EXISTING STRUCTURES DURING ALL WORKS.
- THESE DRAWINGS HAVE BEEN PREPARED WITHOUT THE USE OF A RE-ESTABLISHMENT SURVEY & THEREFORE DO NOT TAKE ANY RESPONSIBILITY FOR THE LOCATION OF THE BOUNDARIES, EASEMENT OR SETBACKS. NO PART OF THE BUILDING INCLUDING ROOFING OR FOOTING MEMBER, ARE TO PROTRUDE BEYOND TITLE BOUNDARY.
- DO NOT SCALE OFF PLANS, USE FIGURED DIMENSIONS ONLY. SITE PLAN DIMENSIONS IN METERS, ALL OTHER DIMENSIONS IN MILLIMETERS
- PLANS ARE DIAGRAMMATIC IN NATURE AND NOT INTENDED TO SHOW EXACT NUMBER OR LOCATION OF MEMBERS, UNLESS OTHERWISE NOTED
- ALL UNDERGROUND SERVICES ARE TO BE LOCATED BY ON SITE BUILDER/CONTRACTOR PRIOR TO EXCAVATION WORKS - REFER TO www.1100.com.au OR CALL 1100 FOR DIAL-BEFORE-YOU-DIG SERVICE
- ALL BUILDING ELEMENTS ARE TO BE PROTECTED FROM TERMITES IN ACCORDANCE WITH NCC 2022 Part 3.4.2 & AS 3660.1

THE DESIGNER TAKES NO RESPONSIBILITY FOR THE POSSIBLE REQUIREMENT OF COUNCIL PLANNING PERMIT & OR COUNCIL SITING CONSENT (RESCODE & NON-RESCODE)

THESE PLANS HAVE BEEN PREPARED FOR THE EXCLUSIVE USE BY THE CLIENT AND FOR THE PURPOSE EXPRESSLY NOTIFIED TO THE DESIGNER. ANY OTHER PERSON WHO USES OR RELIES ON THESE PLANS WITHOUT THE DESIGNER'S WRITTEN CONSENT DOES SO AT OWN RISK AND NO RESPONSIBILITY IS ACCEPTED BY THE DESIGNER FOR SUCH USE AND/OR RELIANCE.

THESE PLANS ARE NEITHER EXHAUSTIVE OR A SUBSTITUTE FOR REGULATIONS, STATUTORY REQUIREMENTS, BUILDING PRACTICE OR CONTRACTUAL OBLIGATIONS, AND UNLESS EXPRESSLY STATED OTHERWISE, ARE PROVIDED ONLY AS GUIDELINES. NO RESPONSIBILITY IS ACCEPTED FOR THEIR USE.

WHILE EVERY EFFORT HAS BEEN MADE AND CARE TAKEN IN THE PREPARATION OF THIS DOCUMENT/DRAWINGS, THE ACCURACY OF ITS CONTENTS RELIES UPON INFORMATION SUPPLIED BY OTHERS. THEREFORE NO LIABILITY FOR ERRORS OR OMISSIONS WILL BE ACCEPTED BY THE DESIGNER.

THE CLIENT AND/OR THE CLIENT'S BUILDER SHALL NOT MODIFY OR AMEND THE PLANS WITHOUT THE KNOWLEDGE AND CONSENT OF THE BUILDING DESIGNER EXCEPT WHERE A REGISTERED BUILDING SURVEYOR MAKES MINOR NECESSARY CHANGES TO FACILITATE THE BUILDING PERMIT APPLICATION AND THAT SUCH CHANGES ARE PROMPTLY REPORTED BACK TO THE BUILDING DESIGNER.

A BUILDING PERMIT IS REQUIRED PRIOR TO THE COMMENCEMENT OF THESE WORKS. THE RELEASE OF THESE DOCUMENTS IS CONDITIONAL TO THE OWNER OBTAINING THE REQUIRED BUILDING PERMIT.

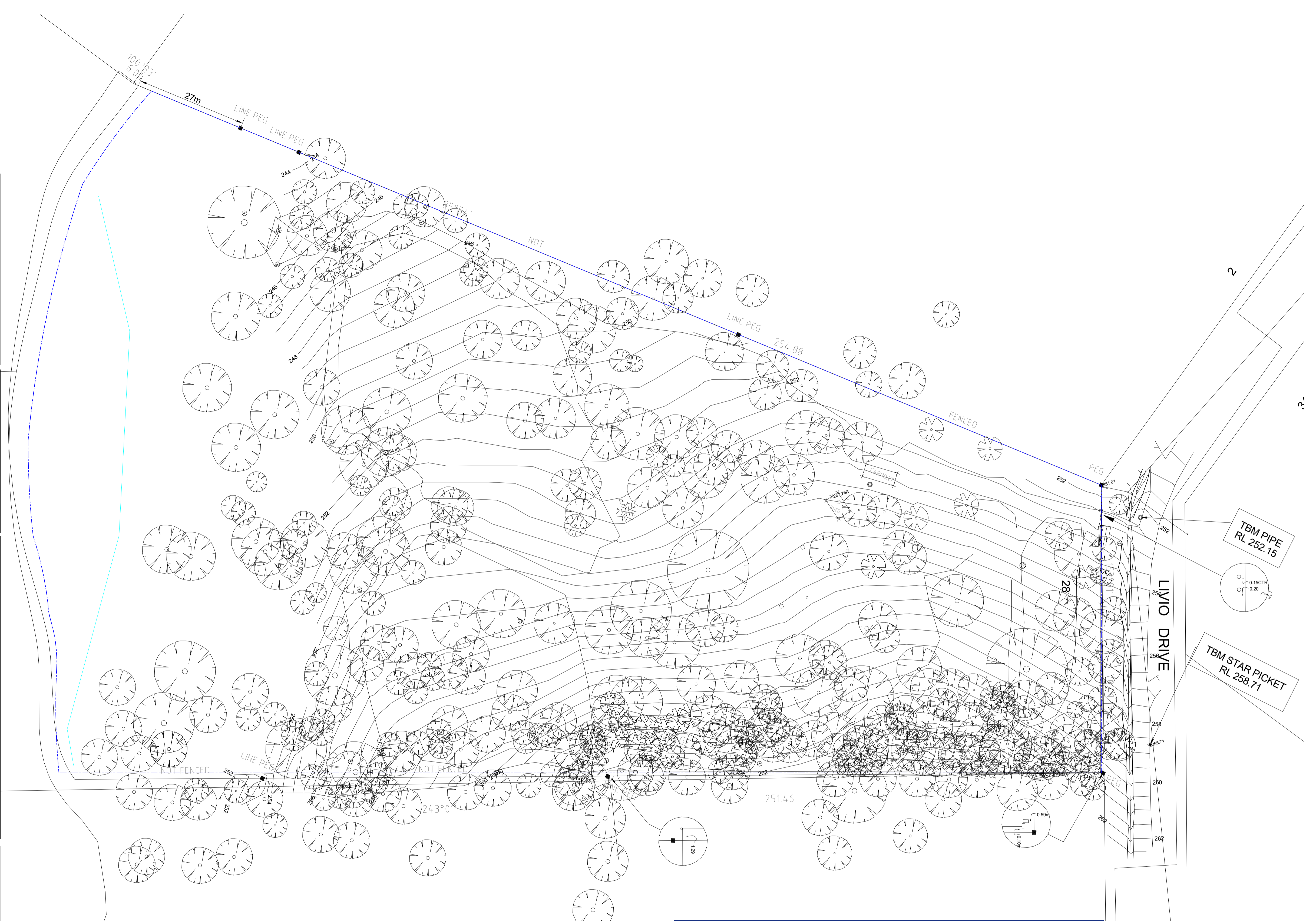
LEGAL POINT OF DISCHARGE NOTE:
ALL STORMWATER TO BE CONNECTED BY LICENCED PLUMBER TO THE LEGAL POINT OF DISCHARGE TO THE WATER AUTHORITIES APPROVAL & COMPLY WITH AS/NZS 3500.3. LICENCED PLUMBER TO VERIFY LPO LOCATION
GUTTERING & FLASHING MUST BE MANUFACTURED IN ACCORDANCE WITH AS/NZS 2175.1 FOR METAL AND AS 1273 FOR UPVC. GUTTERS TO BE INSTALLED WITH A FALL OF NOT LESS THAN 1:50 FOR EAVES GUTTERS & SUPPORTED BY BRACKETS SECURELY FIXED AT STOP ENDS, CORNERS & AT NOT MORE THAN 1.2m CENTRE, & FITTED WITH OVERFLOW MEASURES CAPABLE OF REMOVING THE OVERFLOW VOLUME SPECIFIED IN Table 7.4.4a & Table 7.4.4b
DOWNPIPES MUST NOT SERVE MORE THAN 12 m OF GUTTER LENGTH FOR EACH DOWNPIPE AND BE LOCATED AS CLOSE AS POSSIBLE TO VALLEY GUTTERS.
TEMPORARY DOWNPIPE SOCKS TO BE USED THROUGH THE CONSTRUCTION PERIOD.

SITE NOTES:
ALL EXISTING UNDERGROUND SERVICES ARE TO BE LOCATED ON SITE BY BUILDER/CONTRACTOR PRIOR TO EXCAVATION WORKS - REFER TO www.1100.com.au OR CALL 1100 FOR DIAL-BEFORE-YOU-DIG SERVICE
NO EXISTING SERVICES SHALL BE DISCONNECTED OR DISTURBED WITHOUT APPROVAL FROM RELEVANT AUTHORITY OR ENGINEER.
ENSURE ALL STORMWATER DRAINS, SEWER PIPES & THE LIKE ARE LOCATED AT A SUFFICIENT DISTANCE FROM BUILDING FOOTINGS / SLAB EDGE BEAMS SO AS TO PREVENT GENERAL MOISTURE PENETRATION, DAMPNESS, WEAKNESS & UNDERMINING OF ANY BUILDING & ITS FOOTING SYSTEM.
SITE CUT & SUBSEQUENT DRAINAGE SHALL BE CONDUCTED IN ACCORDANCE WITH AS 3600.3
ALL UNRETAINED SITE CUT & FILL MUST COMPLY WITH THE RELEVANT GEOTECHNICAL REPORT OR FOR NORMAL SITE CONDITIONS:

- (a) BE WITHIN THE ALLOTMENT; &
 - (b) NOT WITHIN THE ZONE OF INFLUENCE OF ANY EXISTING STRUCTURE ON THE PROPERTY, OR THE ALLOTMENT BOUNDARY AS DEFINED IN Table 3.2.1 & Figure 3.2.1a; &
 - (c) NOT DEEPER THAN 2 METRES FROM THE NATURAL GROUND LEVEL AT ANY POINT.
 - (d) ALL UN-RETAINED SITE FILL MUST COMPLY WITH THE RELEVANT GEOTECHNICAL REPORT OR FOR NORMAL SITE CONDITIONS BE:
 - (a) PLACED WITHIN THE ALLOTMENT; &
 - (b) PLACED AT A GRADIENT WHICH COMPLES WITH Table 3.2.1 & Figure 3.2.1a; &
 - (c) PLACED A MECHANICALLY COMPACTED IN LAYERS NOT MORE THAN 150mm; &
 - (d) NOT MORE THAN 2 METRES IN HEIGHT FROM NATURAL GROUND LEVEL AT ANY POINT; &
 - (e) WHERE USED TO SUPPORT FOOTINGS OR SLABS, BE PLACED & COMPACTED IN ACCORDANCE WITH Part 4.2; &
 - (f) HAVE SURFACE WATER DIVERGED AWAY FROM ANY EXISTING STRUCTURE ON THE PROPERTY OR ADJOINING ALLOTMENT IN ACCORDANCE WITH 3.3.3
- STORMWATER DRAINS MUST HAVE A MINIMUM FALL OF 1:100 AWAY FROM DWELLING & ADJOINING PROPERTIES
PROVIDE 90mm DIAM. SLOTTED AG DRAIN TO TOE OF ALL EXCAVATIONS & RETAINING WALLS
AG DRAINS TO DISCHARGE INTO SILT PITS (WITH PROVISIONS FOR CLEANING) CONNECTED TO 90mm UPVC STORMWATER DRAINS. STEEL ALL PIPE JOINTS SHALL HAVE A 45 DEGREE JOINT
ANY EXCAVATION ADJACENT TO EXISTING BUILDINGS TO BE CLEAR OF 45 DEGREE ANGLE OF RESPONSE FROM BASE OF FOOTING
ALL WASTE WATER MUST BE DISCHARGED INTO THE APPROVED SEWERAGE SYSTEM TO THE SATISFACTORY OF THE RELEVANT AUTHORITY
EFFLUENT WASTE TO CONNECT TO SEWER DISCHARGE POINT TO THE SATISFACTION OF THE RELEVANT AUTHORITY

ROOF NOTE:

- ALL STORMWATER TO BE CONNECTED BY LICENCED PLUMBER TO THE LEGAL POINT OF DISCHARGE TO THE WATER AUTHORITIES APPROVAL & COMPLY WITH AS/NZS 3500.3. LICENCED PLUMBER TO VERIFY LPO LOCATION
- GUTTERING & FLASHING MUST BE MANUFACTURED IN ACCORDANCE WITH AS/NZS 2175.1 FOR METAL AND AS 1273 FOR UPVC.
- GUTTERS TO BE INSTALLED WITH A FALL OF NOT LESS THAN 1:50 FOR EAVES GUTTERS & SUPPORTED BY BRACKETS SECURELY FIXED AT STOP ENDS, CORNERS & AT NOT MORE THAN 1.2m CENTRE, & FITTED WITH OVERFLOW MEASURES CAPABLE OF REMOVING THE OVERFLOW VOLUME SPECIFIED IN Table 7.4.4a & Table 7.4.4b.
- DOWNPIPES MUST NOT SERVE MORE THAN 12 m OF GUTTER LENGTH FOR EACH DOWNPIPE AND BE LOCATED AS CLOSE AS POSSIBLE TO VALLEY GUTTERS.
- TEMPORARY DOWNPIPE SOCKS TO BE USED THROUGH THE CONSTRUCTION PERIOD.



1 SITE PLAN
1:500



ADVERTISED MATERIAL

Planning Application: T210451
Date Prepared: 10 April 2026

This copied document is made available for the purpose of the planning process as set out in the *Planning and Environment Act 1987*. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.

SITE LEGEND	
	PROPERTY BOUNDARY
	EASEMENT
	CONTOUR LINE
	SEPTIC SYSTEM
	TREE TO BE REMOVED
	TREE PROTECTION ZONE
	STRUCTURAL ROOT ZONE
	WATERWAY
	DEFENDABLE SPACE
	ADDITIONAL DEFENDABLE SPACE
	PROPOSED RETAINING WALL
	LARGE TREE
	LARGE TREE TO BE REMOVED
	PROPOSED BUILD
	DEFENDABLE SPACE
	SITE FILL
	SITE CUT
	GRAVEL DRIVEWAY
	TREE IMPACT

BIANCA MACKEY
RBP: DP-AD 42382
ABN: 56 133 659 607
3 BELAIR CL SEVILLE 3139
M: 041922652
E: biancamacey@gmail.com

DATE: 8/12/2025

PROJECT NUMBER: 621

CLIENT: AMY VOLTA
E: amy.volta@cloud.com

PROJECT ADDRESS:
61 LIVIO DRIVE
GEMBROOK 3783

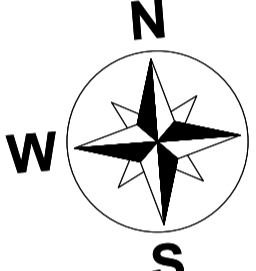
DRAWING TITLE:
EXISTING SITE PLAN

DRAWING NUMBER: A01
REVISION: REV M

REV	DATE	DESCRIPTION
1	08/12/2025	ISSUED FOR PERMIT
2	08/12/2025	REVISED PER PLANING APPLICATION
3	08/12/2025	REVISED PER PLANING APPLICATION
4	08/12/2025	REVISED PER PLANING APPLICATION
5	08/12/2025	REVISED PER PLANING APPLICATION
6	08/12/2025	REVISED PER PLANING APPLICATION
7	08/12/2025	REVISED PER PLANING APPLICATION
8	08/12/2025	REVISED PER PLANING APPLICATION
9	08/12/2025	REVISED PER PLANING APPLICATION
10	08/12/2025	REVISED PER PLANING APPLICATION

SCALE: As indicated

DO NOT SCALE DRAWINGS. ALL METRIC DIMENSIONS ONLY. THE DIMENSIONS SHOWN ON THIS DRAWING ARE THE DIMENSIONS OF THE PROPERTY AND NOT THE DIMENSIONS OF THE BUILDING OR OTHER STRUCTURE. THE DIMENSIONS OF THE BUILDING OR OTHER STRUCTURE ARE SHOWN IN THE DRAWING. THE DIMENSIONS OF THE BUILDING OR OTHER STRUCTURE ARE SHOWN IN THE DRAWING. THE DIMENSIONS OF THE BUILDING OR OTHER STRUCTURE ARE SHOWN IN THE DRAWING.



A1 SHEET

REV	DATE	DESCRIPTION
1	08/12/2025	ISSUED FOR PERMIT
2	08/12/2025	ISSUED FOR PERMIT
3	08/12/2025	ISSUED FOR PERMIT
4	08/12/2025	ISSUED FOR PERMIT
5	08/12/2025	ISSUED FOR PERMIT
6	08/12/2025	ISSUED FOR PERMIT
7	08/12/2025	ISSUED FOR PERMIT
8	08/12/2025	ISSUED FOR PERMIT
9	08/12/2025	ISSUED FOR PERMIT
10	08/12/2025	ISSUED FOR PERMIT

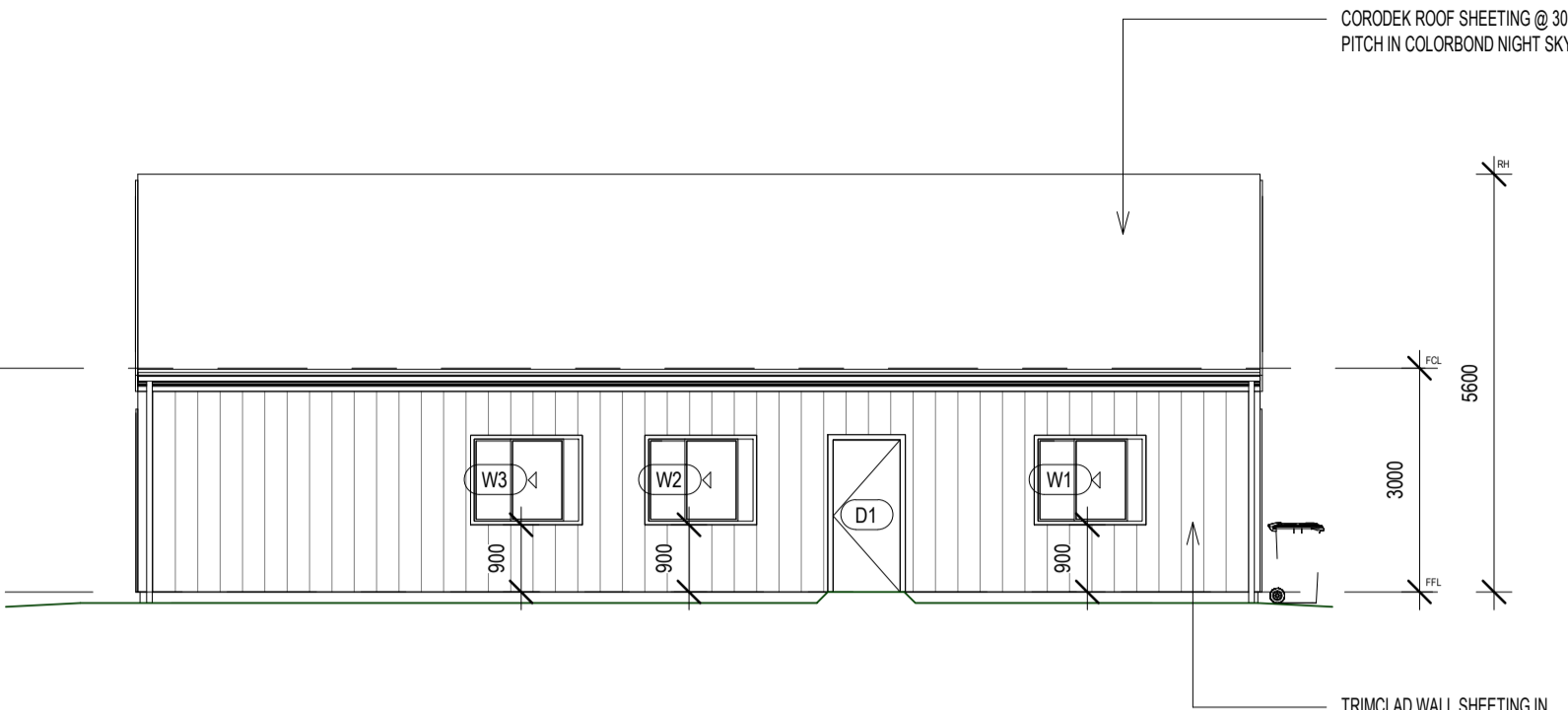
SCALE: 1:100

©2025 SCALE DRAWING. USE RESTRICTED TO THE PROJECT ONLY. THE DRAWING IS THE PROPERTY OF THE ARCHITECT AND IS NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM. THE ARCHITECT ASSUMES NO LIABILITY FOR THE RESULTS OF ANY CONSTRUCTION WORK BASED ON THIS DRAWING. THE ARCHITECT'S RESPONSIBILITY IS LIMITED TO THE DESIGN AND CONSTRUCTION OF THE WORK SHOWN HEREON. THE ARCHITECT DOES NOT WARRANT THE ACCURACY OF ANY INFORMATION PROVIDED BY OTHERS. THE ARCHITECT'S LIABILITY IS LIMITED TO THE VALUE OF THE ARCHITECT'S FEE.

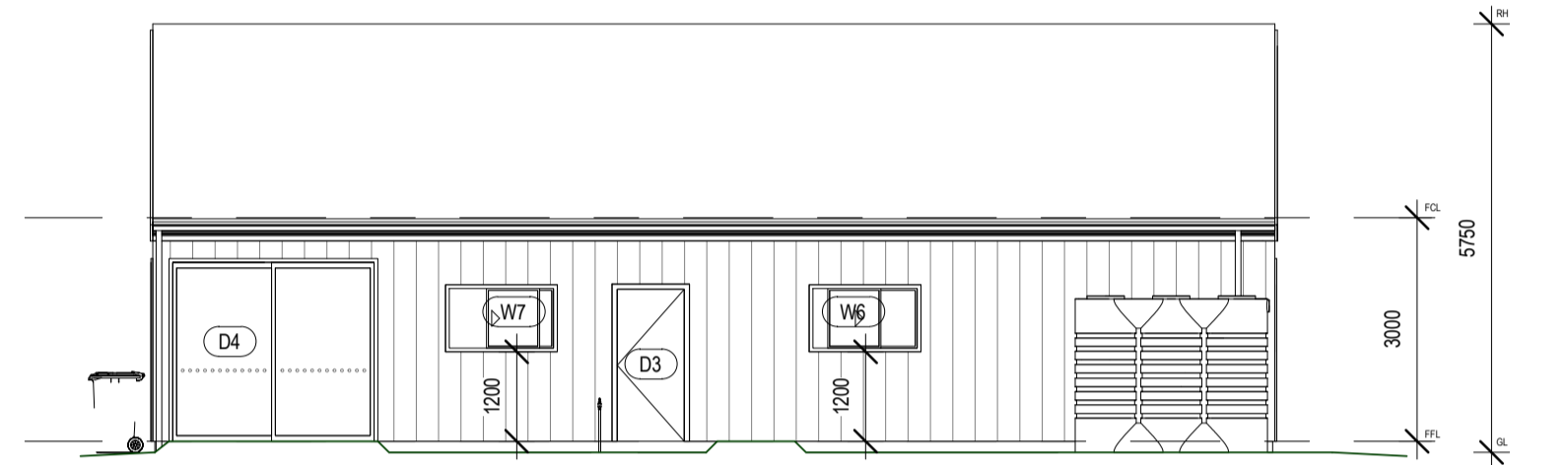


Cardinia
ADVERTISED MATERIAL
 Planning Application: T210451
 Date Prepared: 10 April 2026

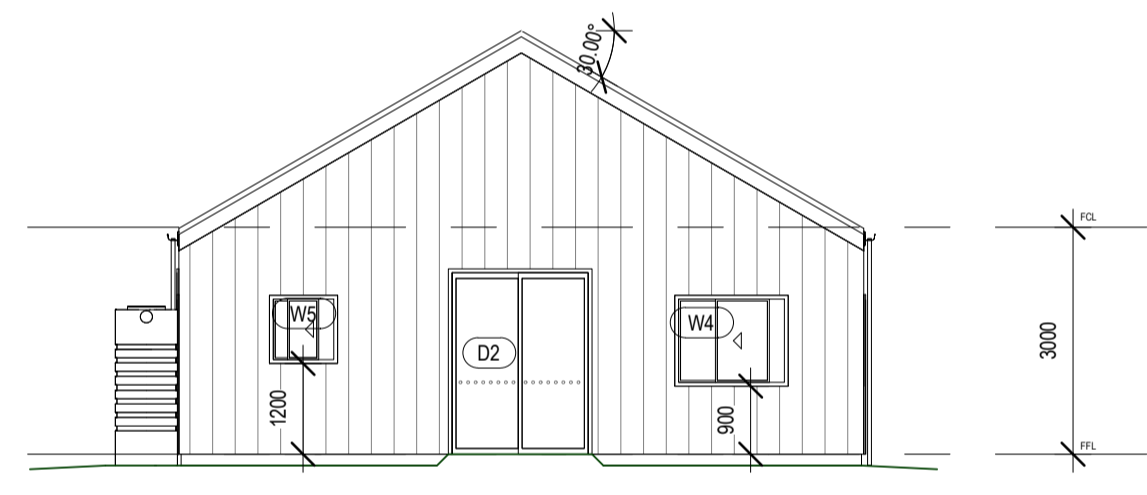
This copied document is made available for the purpose of the planning process as set out in the *Planning and Environment Act 1987*. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.



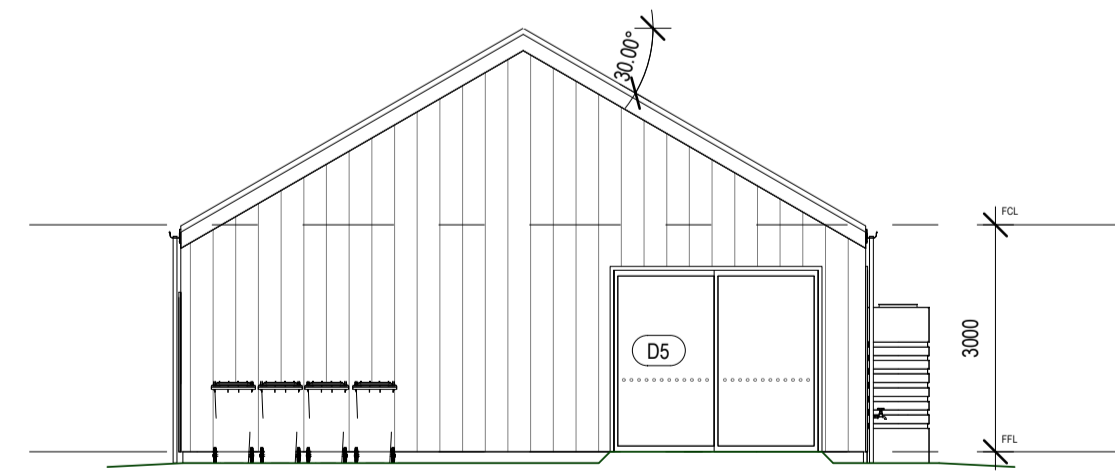
2 NORTH ELEVATION
 1:100



3 SOUTH ELEVATION
 1:100



4 EAST ELEVATION
 1:100



5 WEST ELEVATION
 1:100



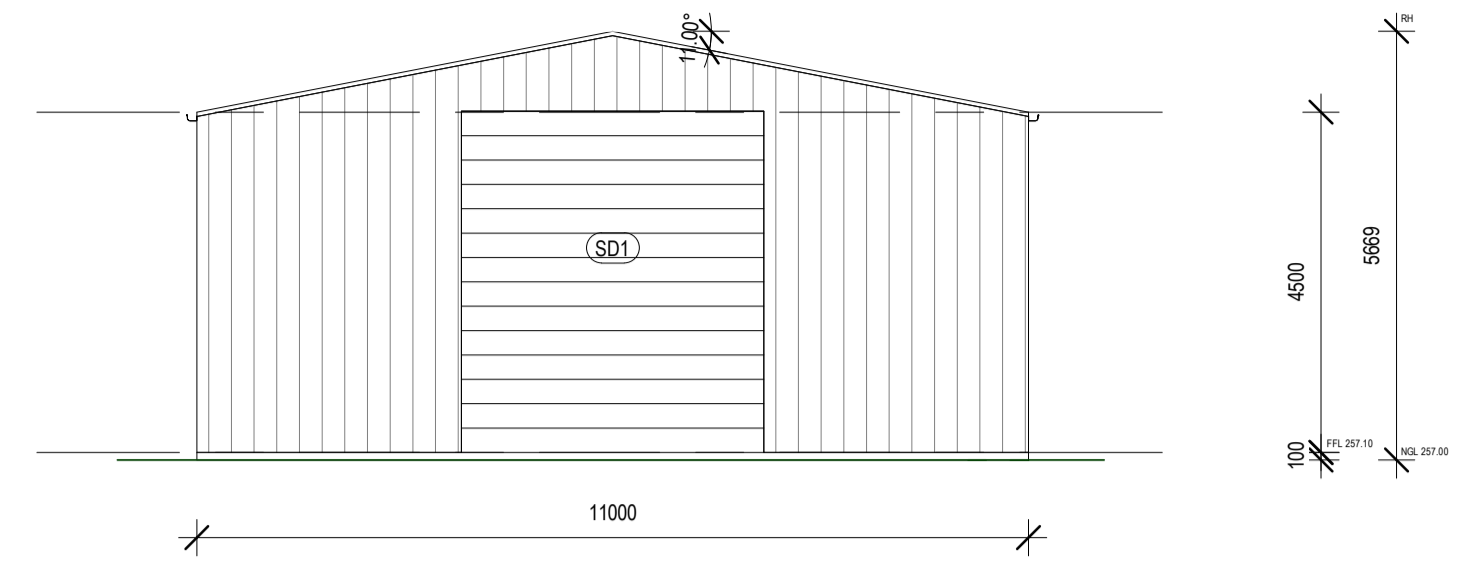
1 FLOOR PLAN
 1:100

DOOR SCHEDULE				
MARK	DOOR TYPE	MATERIAL	HEIGHT	WIDTH
D1	EXTERNAL FLUSH SWING DOOR	SOLID TIMBER	2040	900
D2	EXTERNAL GLAZED SLIDING DOOR	ALUMINIUM FRAME & GRADE A SAFETY GLASS	2400	1800
D3	EXTERNAL FLUSH SWING DOOR	SOLID TIMBER	2040	900
D4	EXTERNAL GLAZED SLIDING DOOR	ALUMINIUM FRAME & GRADE A SAFETY GLASS	2400	2700
D5	EXTERNAL GLAZED SLIDING DOOR	ALUMINIUM FRAME & GRADE A SAFETY GLASS	2400	2700
D6	INTERNAL CAVITY SLIDING DOOR	HOLLOW CORE	2040	820
D7	INTERNAL FLUSH SWING DOOR	HOLLOW CORE	2040	820
D8	INTERNAL FLUSH SWING DOOR	HOLLOW CORE	2040	820
D9	INTERNAL FLUSH SWING DOOR	HOLLOW CORE	2040	820
D10	INTERNAL CAVITY SLIDING DOOR	HOLLOW CORE	2040	820
D11	INTERNAL FLUSH SWING DOOR	HOLLOW CORE	2040	870
D12	INTERNAL CAVITY SLIDING DOOR	HOLLOW CORE	2040	820

WINDOW SCHEDULE					
MARK	WINDOW TYPE	GLAZING	SILL HEIGHT	HEIGHT	WIDTH
W1	ALUMINIUM IMPROVED SLIDING WINDOW	4mm LOW E GLASS	900	1200	1500
W2	ALUMINIUM IMPROVED SLIDING WINDOW	4mm LOW E GLASS	900	1200	1500
W3	ALUMINIUM IMPROVED SLIDING WINDOW	4mm LOW E GLASS	900	1200	1500
W4	ALUMINIUM IMPROVED SLIDING WINDOW	4mm LOW E GLASS	900	1200	1500
W5	ALUMINIUM IMPROVED SLIDING WINDOW	4mm LOW E GLASS	1200	900	900
W6	ALUMINIUM IMPROVED SLIDING WINDOW	4mm LOW E GLASS	1200	900	1500
W7	ALUMINIUM IMPROVED SLIDING WINDOW	4mm LOW E GLASS	1200	900	1500

REV	DATE	DESCRIPTION
1	12/11/2024	ISSUED FOR PERMIT
2	12/11/2024	ISSUED FOR PERMIT
3	12/11/2024	ISSUED FOR PERMIT
4	12/11/2024	ISSUED FOR PERMIT
5	12/11/2024	ISSUED FOR PERMIT
6	12/11/2024	ISSUED FOR PERMIT
7	12/11/2024	ISSUED FOR PERMIT
8	12/11/2024	ISSUED FOR PERMIT
9	12/11/2024	ISSUED FOR PERMIT
10	12/11/2024	ISSUED FOR PERMIT
11	12/11/2024	ISSUED FOR PERMIT
12	12/11/2024	ISSUED FOR PERMIT
13	12/11/2024	ISSUED FOR PERMIT
14	12/11/2024	ISSUED FOR PERMIT
15	12/11/2024	ISSUED FOR PERMIT
16	12/11/2024	ISSUED FOR PERMIT
17	12/11/2024	ISSUED FOR PERMIT
18	12/11/2024	ISSUED FOR PERMIT
19	12/11/2024	ISSUED FOR PERMIT
20	12/11/2024	ISSUED FOR PERMIT
21	12/11/2024	ISSUED FOR PERMIT
22	12/11/2024	ISSUED FOR PERMIT
23	12/11/2024	ISSUED FOR PERMIT
24	12/11/2024	ISSUED FOR PERMIT
25	12/11/2024	ISSUED FOR PERMIT
26	12/11/2024	ISSUED FOR PERMIT
27	12/11/2024	ISSUED FOR PERMIT
28	12/11/2024	ISSUED FOR PERMIT
29	12/11/2024	ISSUED FOR PERMIT
30	12/11/2024	ISSUED FOR PERMIT
31	12/11/2024	ISSUED FOR PERMIT
32	12/11/2024	ISSUED FOR PERMIT
33	12/11/2024	ISSUED FOR PERMIT
34	12/11/2024	ISSUED FOR PERMIT
35	12/11/2024	ISSUED FOR PERMIT
36	12/11/2024	ISSUED FOR PERMIT
37	12/11/2024	ISSUED FOR PERMIT
38	12/11/2024	ISSUED FOR PERMIT
39	12/11/2024	ISSUED FOR PERMIT
40	12/11/2024	ISSUED FOR PERMIT
41	12/11/2024	ISSUED FOR PERMIT
42	12/11/2024	ISSUED FOR PERMIT
43	12/11/2024	ISSUED FOR PERMIT
44	12/11/2024	ISSUED FOR PERMIT
45	12/11/2024	ISSUED FOR PERMIT
46	12/11/2024	ISSUED FOR PERMIT
47	12/11/2024	ISSUED FOR PERMIT
48	12/11/2024	ISSUED FOR PERMIT
49	12/11/2024	ISSUED FOR PERMIT
50	12/11/2024	ISSUED FOR PERMIT

SCALE: 1 : 100



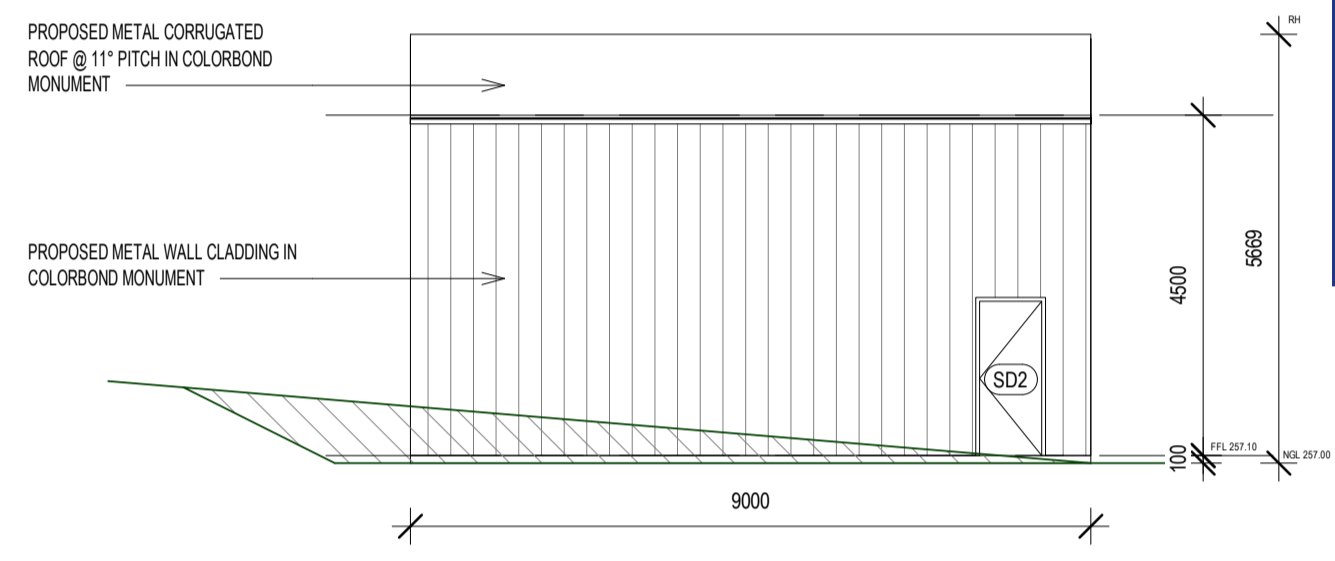
2 NORTH WEST ELEVATION
 1 : 100



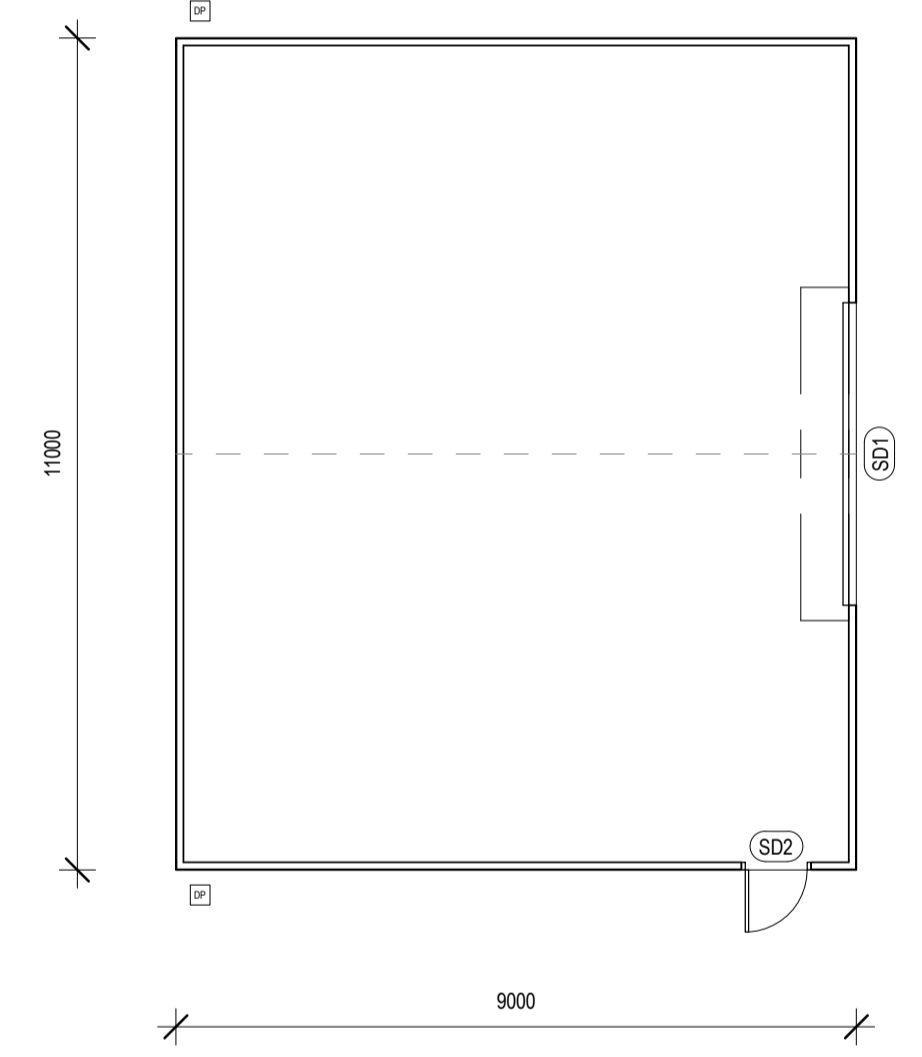
ADVERTISED MATERIAL

Planning Application: T210451
 Date Prepared: 10 April 2026

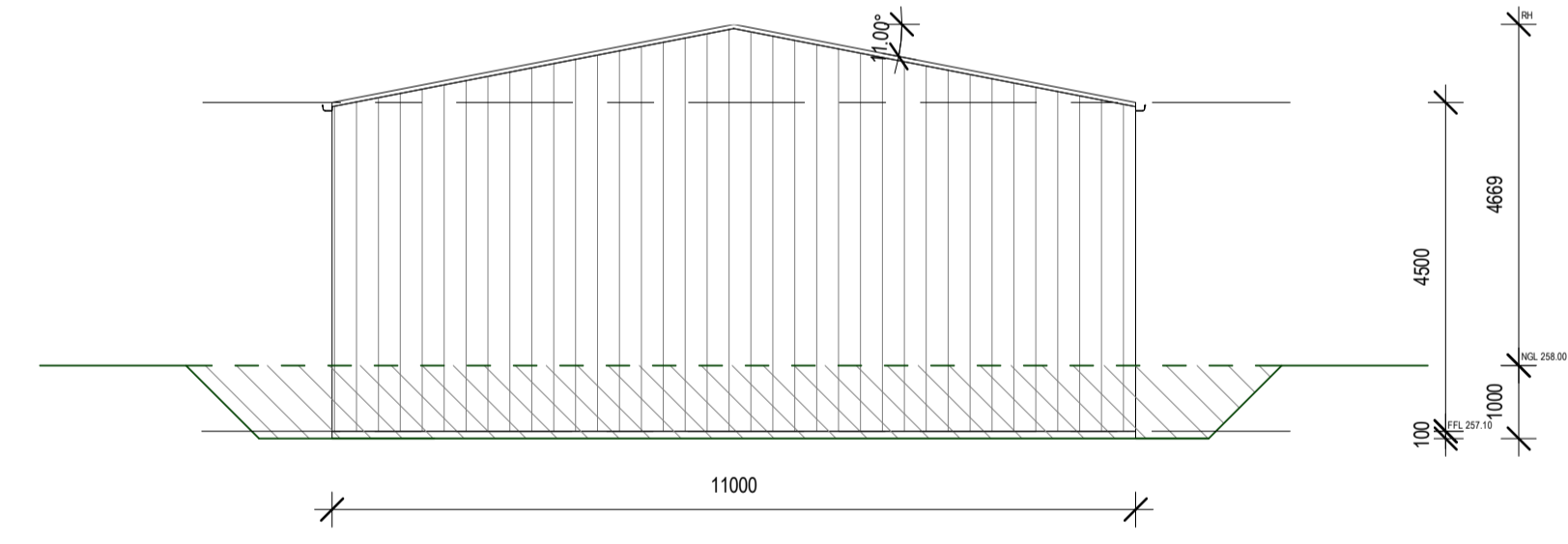
This copied document is made available for the purpose of the planning process as set out in the *Planning and Environment Act 1987*. The information must not be used for any other purpose. By taking a copy of this document you acknowledge and agree that you will only use the document for the purpose specified above and that any dissemination, distribution or copying of this document is strictly prohibited.



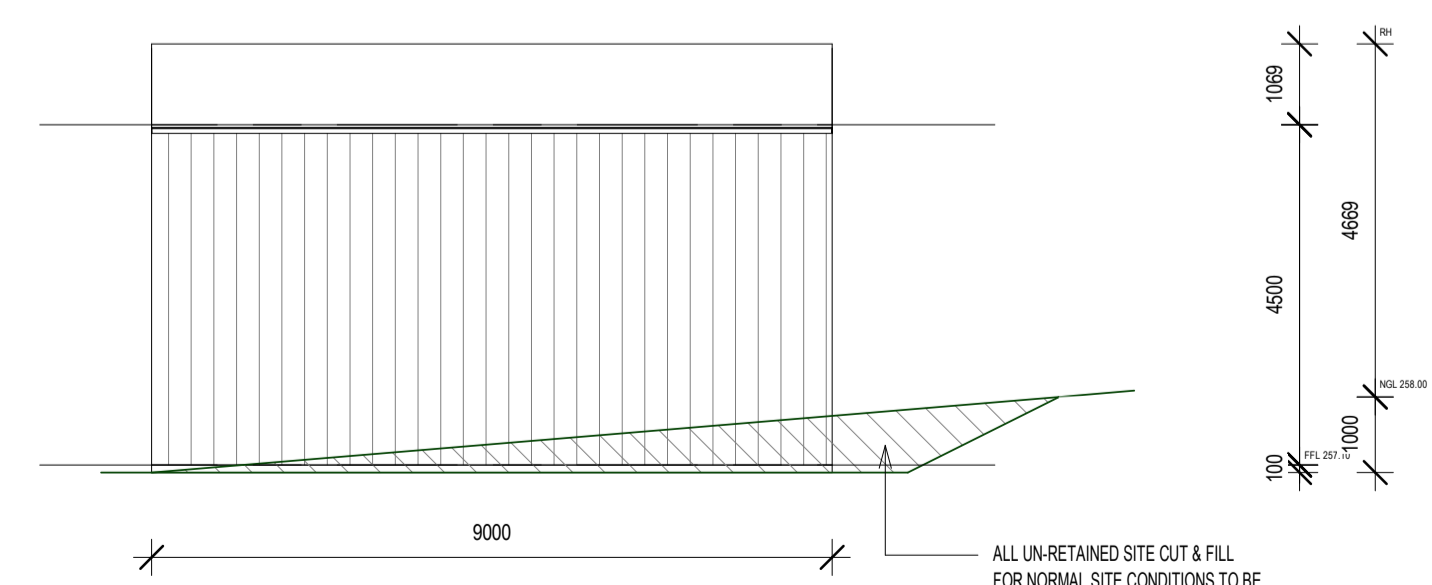
3 NORTH EAST ELEVATION
 1 : 100



1 SHED FLOOR PLAN
 1 : 100



4 SOUTH EAST ELEVATION
 1 : 100



5 SOUTH WEST ELEVATION
 1 : 100

ALL UN-RETAINED SITE CUT & FILL FOR NORMAL SITE CONDITIONS TO BE BATTERED BACK TO AN ANGLE OF 1 VERTICAL TO 2 HORIZONTAL (1V:2H) & TO NCC 3.1.1.1

