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HUME CITY COUNCIL

Office Use Only	
Application No.:	Date Lodged: / /

Application for
Planning Permit

Planning Enquiries
Phone: 03 9205 2200
Web: http://www.hume.vic.gov.au

If you need help to complete this form, read How to complete the Application for Planning Permit form.

⚠ Any material submitted with this application, 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.* If you have any concerns, please contact Council's planning department.

⚠ **Questions marked with an asterisk (*) are mandatory and must be completed.**

⚠ **If the space provided on the form is insufficient, attach a separate sheet.**

Clear Form

The Land i

1 Address of the land. Complete the Street Address and one of the Formal Land Descriptions.

Street Address *

Unit No.: | St. No.: | St. Name:

Suburb/Locality: | Postcode:

Formal Land Description *
Complete either A or B.

⚠ This information can be found on the certificate of title.

A Lot No.: ◯ Lodged Plan ◯ Title Plan ◯ Plan of Subdivision No.:

OR

B Crown Allotment No.: | Section No.:

Parish/Township Name:

If this application relates to more than one address, please click this button and enter relevant details. Add Address

The Proposal

⚠ You must give full details of your proposal and attach the information required to assess the application. Insufficient or unclear information will delay your application.

2 i **For what use, development or other matter do you require a permit? ***

If you need help about the proposal, read: How to Complete the Application for Planning Permit Form

Impact vegetation pursuant to Clause 42.01 (ESO2 and ESO10), Clause 52.17 – Native vegetation and Clause 45.01 (PAO2)

Use land pursuant to Clause 45.01 (PAO2)

Provide additional information on the proposal, including: plans and elevations; any information required by the planning scheme, requested by Council or outlined in a Council planning permit checklist; and if required, a description of the likely effect of the proposal.

3 i **Estimated cost of development for which the permit is required ***

Cost $0 - veg removal and use only

⚠ You may be required to verify this estimate. Insert `0' if no development is proposed.

If the application is for land within **metropolitan Melbourne** (as defined in section 3 of the *Planning and Environment Act 1987*) and the estimated cost of the development exceeds $1 million (adjusted annually by CPI) the Metropolitan Planning Levy **must** be paid to the State Revenue Office and a current levy certificate **must** be submitted with the application.
Visit www.sro.vic.gov.au for information.

Existing Conditions i

4 **Describe how the land is used and developed now ***

eg. vacant, three dwellings, medical centre with two practitioners, licensed restaurant with 80 seats, grazing.

YVW easement, agricultural land, road reserve

Provide a plan of the existing conditions. Photos are also helpful.

Title Information

5 Encumbrances on title *

If you need help about the title, read: How to complete the Application for Planning Permit form

Does the proposal breach, in any way, an encumbrance on title such as a restrictrive covenant, section 173 agreement or other obligation such as an easement or building envelope?

- ○ Yes. (If 'yes' contact Council for advice on how to proceed before continuing with this application.)
- ○ No
- ◉ Not applicable (no such encumbrance applies).

☑ Provide a full, current copy of the title for each individual parcel of land forming the subject site. (The title includes: the covering 'register search statement', the title diagram and the associated title documents, known as 'instruments', eg. restrictive covenants.)

Applicant and Owner Details

6 Provide details of the applicant and the owner of the land.

Applicant *

The person who wants the permit.

Name:
Title: Mrs | First Name: [redacted] | Surname: [redacted]
Organisation (if applicable): Yarra Valley Water
Postal Address: | If it is a P.O. Box, enter the details here:
Unit No.: | St. No.: 25 | St. Name: Lucknow Street
Suburb/Locality: Mitcham | State: VIC | Postcode: 3132

Where the preferred contact person for the application is different from the applicant, provide the details of that person.

Contact person's details * — Same as applicant (if so, go to 'contact information') ☐
Name:
Title: Ms | First Name: [redacted] | Surname: [redacted]
Organisation (if applicable): Nation Partners
Postal Address: | If it is a P.O. Box, enter the details here:
Unit No.: 3 | St. No.: 75-77 | St. Name: Flinders Lane
Suburb/Locality: Melbourne Water | State: VIC | Postcode: 3000

*Please provide at least one contact phone number **

Contact Information
Business Phone [redacted] | Email: [redacted]
Mobile Phone: | Fax:

Owner *

The person or organisation who owns the land

Where the owner is different from the applicant, provide the details of that person or organisation.

Name: — Same as applicant ☐
Title: | First Name: | Surname:
Organisation (if applicable): YVW and others (details provided in Section 1.5 of Planning Report)
Postal Address: | If it is a P.O. Box, enter the details here:
Unit No.: | St. No.: | St. Name:
Suburb/Locality: | State: | Postcode:
Owner's Signature (Optional): | Date: day / month / year

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Declaration

7 This form must be signed by the applicant *

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

I declare that I am the applicant; and that all the information in this application is true and correct; and the owner (if not myself) has been notified of the permit application.

[redacted] | Date: 4 Mar 2026 day / month / year

Need help with the Application?

If you need help to complete this form, read How to complete the Application for Planning Permit form
General information about the planning process is available at www.delwp.vic.gov.au/planning

Contact Council's planning department to discuss the specific requirements for this application and obtain a planning permit checklist. Insufficient or unclear information may delay your application.

8 Has there been a pre-application meeting with a Council planning officer?

○ No ◉ Yes

If 'yes', with whom?: Hayley Wu

Date: 23 October 2025 day / month / year

Checklist

9 Have you:

☐ Filled in the form completely?

☐ Paid or included the application fee?

⚠ Most applications require a fee to be paid. Contact Council to determine the appropriate fee.

☐ Provided all necessary supporting information and documents?

- ☐ A full, current copy of title information for each individual parcel of land forming the subject site
- ☐ A plan of existing conditions.
- ☐ Plans showing the layout and details of the proposal
- ☐ Any information required by the planning scheme, requested by council or outlined in a council planning permit checklist.
- ☐ If required, a description of the likely effect of the proposal (eg traffic, noise, environmental impacts).
- ☐ If applicable, a current Metropolitan Planning Levy certificate (a levy certificate expires 90 days after the day on which it is issued by the State Revenue Office and then cannot be used). Failure to comply means the application is void.

☐ Completed the relevant Council planning permit checklist?

☐ Signed the declaration (section 7)?

Lodgement

Lodge the completed and signed form, the fee payment and all documents with:

Hume City Council
PO Box 119 Dallas VIC 3047
Pascoe Vale Road Broadmeadows VIC 3047

Contact information:

Telephone: 61 03 9205 2200
Email: email@hume.vic.gov.au
DX: 94718
Translation: 03 9205 2200 for connection to Hume Link's multilingual telephone information service

Deliver application in person, by fax, or by post:

Print Form

Make sure you deliver any required supporting information and necessary payment when you deliver this form to the above mentioned address. This is usually your local council but can sometimes be the Minister for Planning or another body.

Save Form:

Save Form To Your Computer

You can save this application form to your computer to complete or review later or email it to others to complete relevant sections.

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Aurora to Bald Hill Non-Drinking Water Main

Planning Report – Hume City Council

Prepared for Yarra Valley Water

Prepared by Ripple JV | **February 2026**

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Revision schedule

Rev No.	Date	Description	Prepared by	Checked by	Reviewed by	Approved by
A	24 November 2025	Draft for client review	Hannah Littlejohn and Annie Harwood	Amy Gason	Amy Gason	Amy Gason
B	24 February 2026	Final for submission to Council	Hannah Littlejohn and Annie Harwood	Amy Gason	Amy Gason	Amy Gason

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This document was prepared by the Beca Stantec JV ("Ripple") for the account of Yarra Valley Water (the "Client"). The material in it reflects Ripple's professional judgment in light of the scope, the Client's brief (if any) and other limitations stated in the document and in the contract between Ripple and the Client. The opinions in the document are based on conditions and information existing at the time the document was published. In preparing the document, Ripple may have relied on information supplied to it by others. Any use which a third party makes of this document is the responsibility of such third party. No liability is accepted by Ripple or any employee or sub-consultant of Ripple with respect to its use by a third party.

Quality statement

Ripple Project Manager	Ripple Project Delivery Manager
Carmen Loo	Alisha Printz

PREPARED BY	Hannah Littlejohn and Annie Harwood	24 / 02 / 2026
CHECKED BY	Amy Gason	24 / 02 / 2026
REVIEWED BY	Amy Gason	24 / 02 / 2026
APPROVED FOR ISSUE BY	Amy Gason	24 / 02 / 2026

Reference Number	Reference Number Owner
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TEL +61 3 9272 1582

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1 Introduction

1.1 Purpose

This Planning Report has been prepared by Ripple JV on behalf of Yarra Valley Water (YVW) for construction activities associated with the Aurora to Bald Hill non-drinking water (NDW) main works (the Project). A planning permit is triggered under the Hume Planning Scheme to:

- Impact vegetation pursuant to:
  - Clause 42.01, including Environmental Significance Overlay – Schedule 2 (ESO2) and Environmental Significance Overlay – Schedule 10 (ESO10)
  - Clause 52.17 – Native vegetation
  - Clause 45.01, including Public Acquisition Overlay – Schedule 2 (PAO2)
- Use land pursuant to:
  - Clause 45.01, including Public Acquisition Overlay – Schedule 2 (PAO2)

1.2 Project overview

YVW is planning for growth in Melbourne's Northern Growth Area (NGA), which extends from Craigieburn in the south to Wallan in the north, and has identified the need to augment supply of recycled water to the NGA via new transfer pipelines. To improve reliability and operational flexibility, the Project provides for:

- Eliminating flow restrictions and supply limitations in the existing recycled water network.
- Enhancing reliability and operational flexibility to service current and future demands within the NGA.
- Enabling transfer of recycled water from the Aurora Recycled Water Treatment Plant (RWTP) to Mt Ridley Reservoir, interfacing with future Wollert tanks, and integrating with the broader network (including provision for supply northwards to Bald Hill Reservoir as the scheme develops).

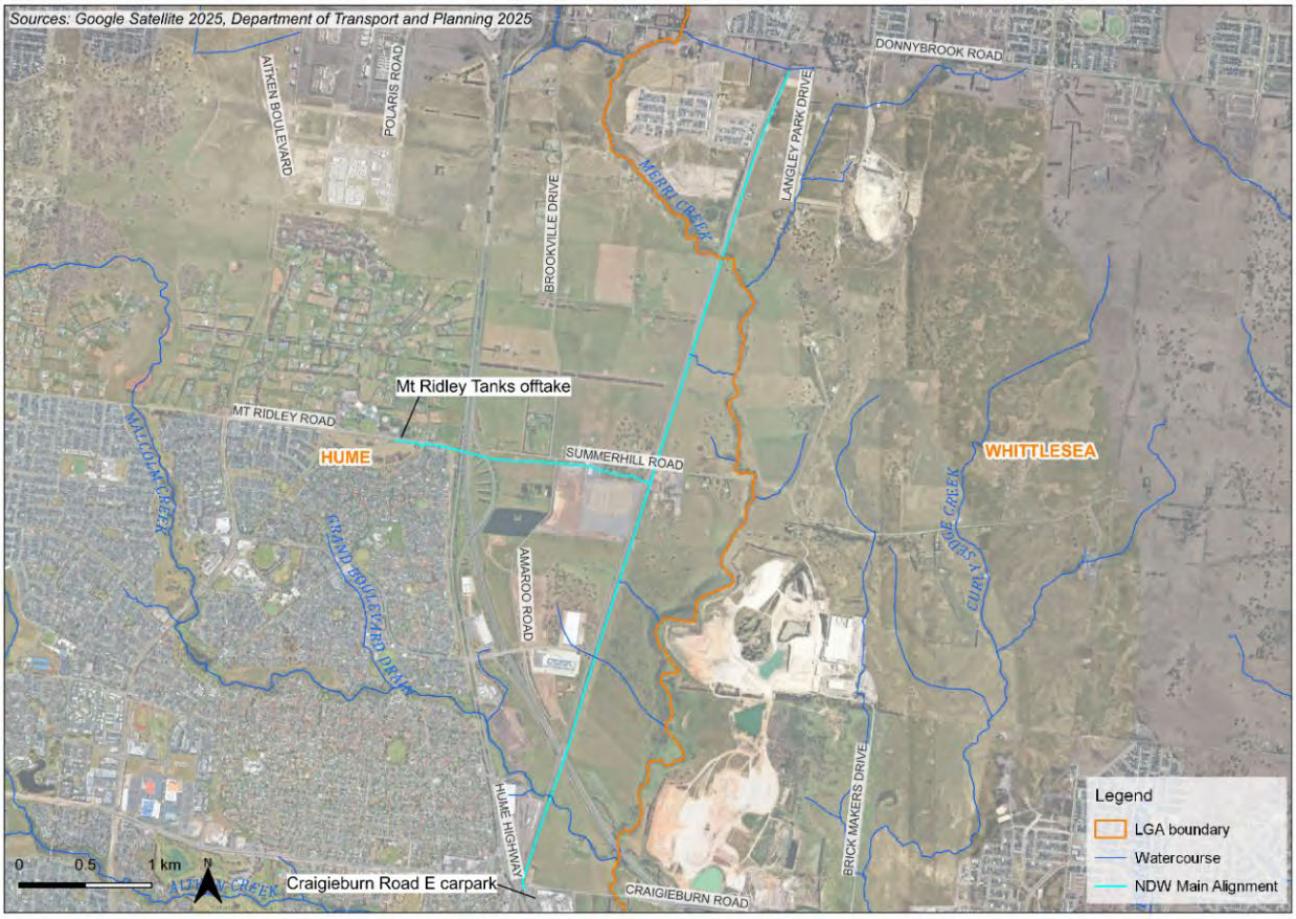

Figure 1-1 NDW main alignment overview

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This planning permit relates to Stage 1 of the Project, which, is located in Craigieburn and Donnybrook and comprises three sub-stages:

- Stage 1A: A North-South alignment of the NDW main between the Aurora RWTP and Donnybrook Road, including the rail crossing on the West-East alignment.
- Stage 1B: A West-East alignment of the NDW main between the North-South alignment and Mt Ridley Reservoir.
- Stage 1C: Permanent access track and shared user path along the North-South and East West alignment.

An overview of the Stage 1 alignment of the NDW main is shown in Figure 1. The section of the alignment within the City of Whittlesea extends from the Merri Creek to Donnybrook Road. Additional drawings of the alignment and construction corridor are provided at Appendix A.

1.3 Project Area

The Project Area (refer to Figure 2) is located approximately 24 kilometres north of Melbourne's central business district, and spans the City of Hume, and City of Whittlesea local government areas (LGAs).

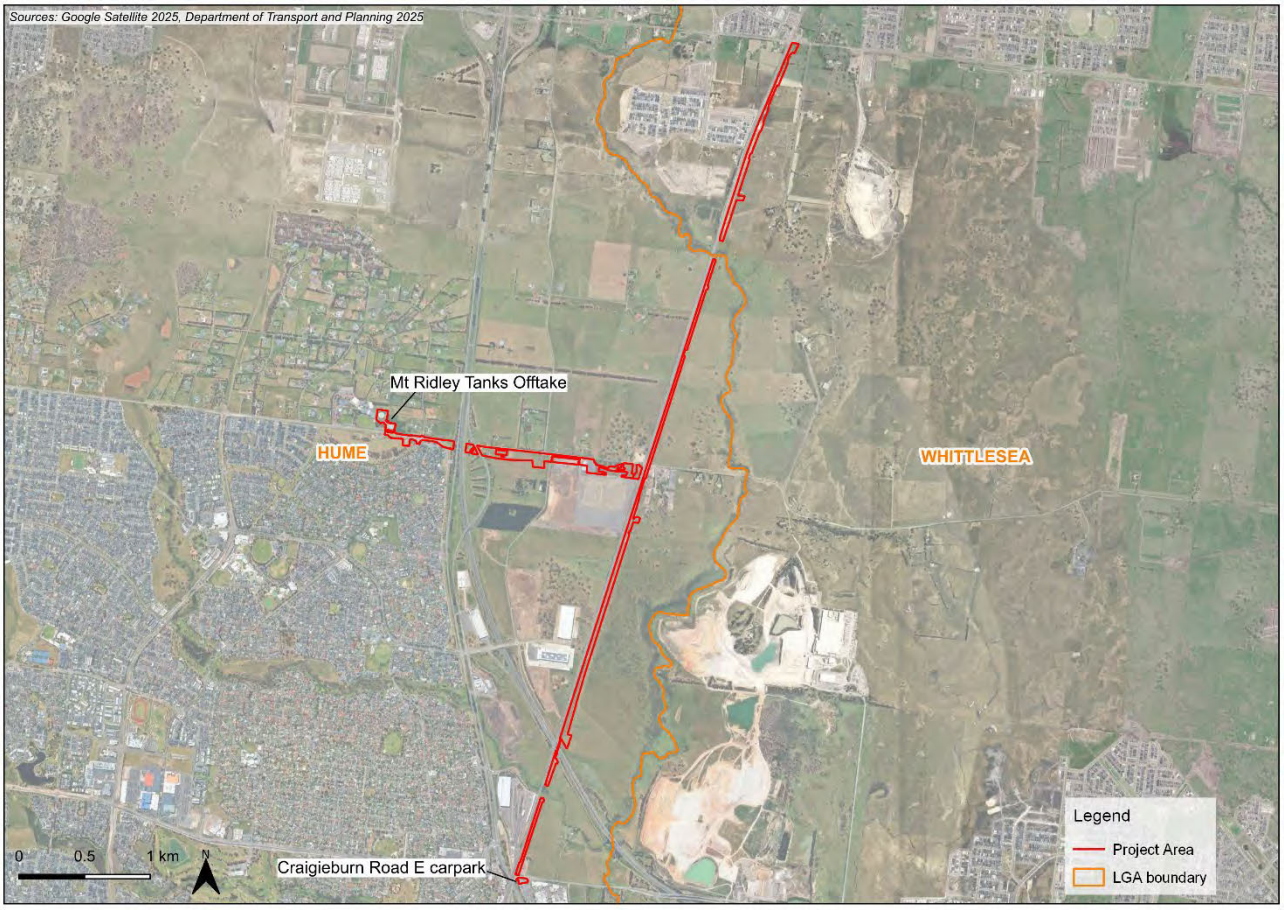

Figure 2: Project Area map

The Project Area comprises a 6.75 km NDW main alignment that runs parallel to the railway line and existing YVW recycled water (RW) main (R012) at Craigieburn Road East car park to the existing RW main (R023) offtake located south of Donnybrook Rd, including a section of alignment along Summerhill Rd that connects into the Mount Ridley Reservoir Outlet Main (refer to Figure 2).

Two (2) creeks intersect with the Project Area, Malcom Creek and Merri Creek, with the Merri Creek forming the border between the two (2) LGAs. The portion of the Project Area north of the Merri Creek is within the City of Whittlesea, and the portion of the Project Area to the south is within the City of Hume.

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1.4 Environmental and planning approvals review

Environmental planning, ecological and heritage due diligence assessments were undertaken for the Project to inform understanding of the environmental context of the Project area (Figure 2). Findings from these due diligence assessments were utilised to guide and facilitate Project development, identify the most significant environmental values to prioritise avoidance, and support relevant statutory approval processes for residual impacts. An overview of how these investigations informed the Project's primary approval pathway is outlined in Table 1.

Table 1: Approvals overview

Relevant legislation & approval	Authority	Approval required?	Discussion
Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) **Referral to the Minister for the Environment**	Department of Climate Change, Energy, the Environment and Water (DCCEEW)	Unlikely	As per the Detailed Flora and Fauna Assessment (DFFA; see Appendix B), Matters of National Environmental Significance (MNES) most likely to be impacted by the Project were the Natural Temperate Grassland of the Victorian Volcanic Plain Ecological Community (EC), which is an EC listed as Critically Endangered under the EPBC Act. Following refinement of the Project Area, this EPBC Act listed EC has been avoided (i.e. habitat zone 5 and 6). Several EPBC Act-listed threatened flora and fauna species known to occur in the Project Area include the Growling Grass Frog (GGF), River Swampy Wallaby-grass and areas which may provide critical habitat for the GGF will be avoided by the Project through the use of trenchless techniques in areas of critical habitat (i.e. creek crossings). Assuch, it is considered unlikely that there will be any significant impacts to any MNES and that referral under the EPBC Act is not required for the Project.
EPBC Act **Works in Conservation Area (WICA)**	DEECA	Yes	Part of the Project Area passes through Conservation Area 34 and as such a WICA approval for works within that area will be sought from DEECA.
Environmental Effects Act 1978 (EE Act) **Environmental Effects Statement (EES)**	Department of Transport and Planning	No	Given the existing site conditions, history of disturbance along the construction corridor, highly degraded nature of the native vegetation present within the Project Area and minimal amount of native vegetation removal required, it is considered that approval under the EE Act is not required for the Project.
Planning and Environment Act 1987 **Planning Permit**	Whittlesea City Council	Yes	A planning permit will be required to impact vegetation under the following clauses of the Whittlesea Planning Scheme: • Clause 42.01 (ESO3, ESO4, ESO6) • Clause 52.17 – Native vegetation
	Hume City Council	Yes	A planning permit will be required under the following clauses of the Hume Planning Scheme: • Clause 42.01 (ESO2, ESO10) (vegetation impacts) • Clause 45.01 (PAO2) (vegetation impacts and use of land) • Clause 52.17 – Native Vegetation (vegetation impacts)
Aboriginal Heritage Act 2006 **Cultural Heritage Management Plan (CHMP)**	Wurundjeri Woi Wurrung Cultural Heritage Aboriginal Corporation	Yes	CHMP 19688 has been prepared and approved for the Project. A copy of CHMP 19688 is provided at Appendix C.
Heritage Act 2017	Heritage Victoria	Yes	There is one (1) historical archaeological site included in the Victorian Heritage Inventory in the Project Area, VHI H7822-0731 (Occupation Stock

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Relevant legislation & approval	Authority	Approval required?	Discussion
Heritage Permit or exemption or Consent to uncover, excavate or damage			Crossing Site), which is located within City of Hume. A Consent to Damage (Less than 50%) of this site will be sought from Heritage Victoria.
Flora and Fauna Guarantee Act 1988 (FFG Act) **Permit to take protected flora**	Department of Energy, Environment and Climate Action (DEECA)	Yes	Parts of two (2) FFG Act threatened ecological communities located on public land will be impacted by the proposed works and will require an FFG Act "Permit to remove protected flora". This includes the following within the City of Hume; six Fragrant Saltbush (*Rhagodia parabolica*) individuals, 0.33 ha of 'Westen (Basalt) Plains Grasslands Community' (synonymous with EVC132 Plains Grassland) and 0.22 ha of 'Western Basalt Plains (River Red Gum) Grassy Woodland Community' (synonymous with EVC 55 Plains Grassy Woodland).
Water Act 1989 **Works on waterways**	Melbourne Water	Yes	The Project Area intersects with the Merri Creek and Malcolm Creek. As such, consent is required from Melbourne Water for works and activities in, under, on or over the bed and banks of these waterways.
Application to Landowner consent for use and development of Crown land (LOC)	DEECA	Yes	The Project Area includes the following Crown land parcel where it intersects with the Merri Creek in both Whittlesea and Hume LGAs: • 2001\PP2819 (SPI) located at Summerhill Road Wollert 3750 As such, LOC will be required from DEECA where the Project intersects with the above parcel.

1.5 Land subject to planning approval

Within the Hume City Council portion of the Project Area, planning approval is required to facilitate the proposed works in the parcels of land identified in Table 2. Figure 3, Figure 4, Figure 5 and Figure 6 show the parcels of land subject to planning approval with a Map ID number that corresponds with Table 2.1. Title particulars are provided in Appendix D.

Table 2: Title particular and land ownership

Map ID	Figure ref.	Address	Standard Parcel Identifier (SPI)	Registered landowner	Encumbrances	Relevant permit triggers
1	Figure 3	Not applicable – Road reserve	R1\PS724901	Hume City Council	Not applicable – no title available	PAO2 – land use
2		Not applicable – Road reserve	R1\PS724902	Hume City Council	Not applicable – no title available	PAO2 – land use, tree removal
3		Not applicable – Road reserve	L\PS521532	Roads Corporation	No	PAO2 – land use, tree removal
4	Figure 4	650A Summerhill Road, Craigieburn	RES1\PS743424	YVW	No	ESO2, ESO10, Clause 52.17
5		720 Summerhill Road, Craigieburn	RES1\PS743425	YVW	No	ESO10, Clause 52.17
6		650 Summerhill Road, Craigieburn	1\PS743425	Golina Holdings Pty Ltd	No	ESO10, Clause 52.17
7		Summerhill Road, Craigieburn	Not applicable – no SPI available, however listed as Allotment 10D (part), Parish of Kalkallo	Unknown – no title available	Not applicable – no title available	Clause 52.17

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Map ID	Figure ref.	Address	Standard Parcel Identifier (SPI)	Registered landowner	Encumbrances	Relevant permit triggers
8	Figure 5	743 Summerhill Road, Craigieburn	RES1\PS743427	YVW	No	Clause 52.17
9		715 Summerhill Road, Craigieburn	1\PS743427	Steven Mustica	No	Clause 52.17
10		794-798 Craigieburn Road E, Craigieburn	1\TP251903	Victorian Rail Track	No	Clause 52.17
11	Figure 5 & Figure 6	752A Craigieburn Road E, Craigieburn	A\PS743428	YVW	No	Clause 52.17
12	Figure 6	752A Craigieburn Road E, Craigieburn	A\PS743429	YVW	No	Clause 52.17
13		790 Craigieburn Road E, Craigieburn	1\LP222180	YVW	No	Clause 52.17
14	Figure 5 & Figure 6	752A Craigieburn Road E, Craigieburn	1\PS743428	Landream Craigieburn Pty Ltd	No	Clause 52.17

A declaration that YVW has notified all relevant landowners have been notified is provided at Appendix E.

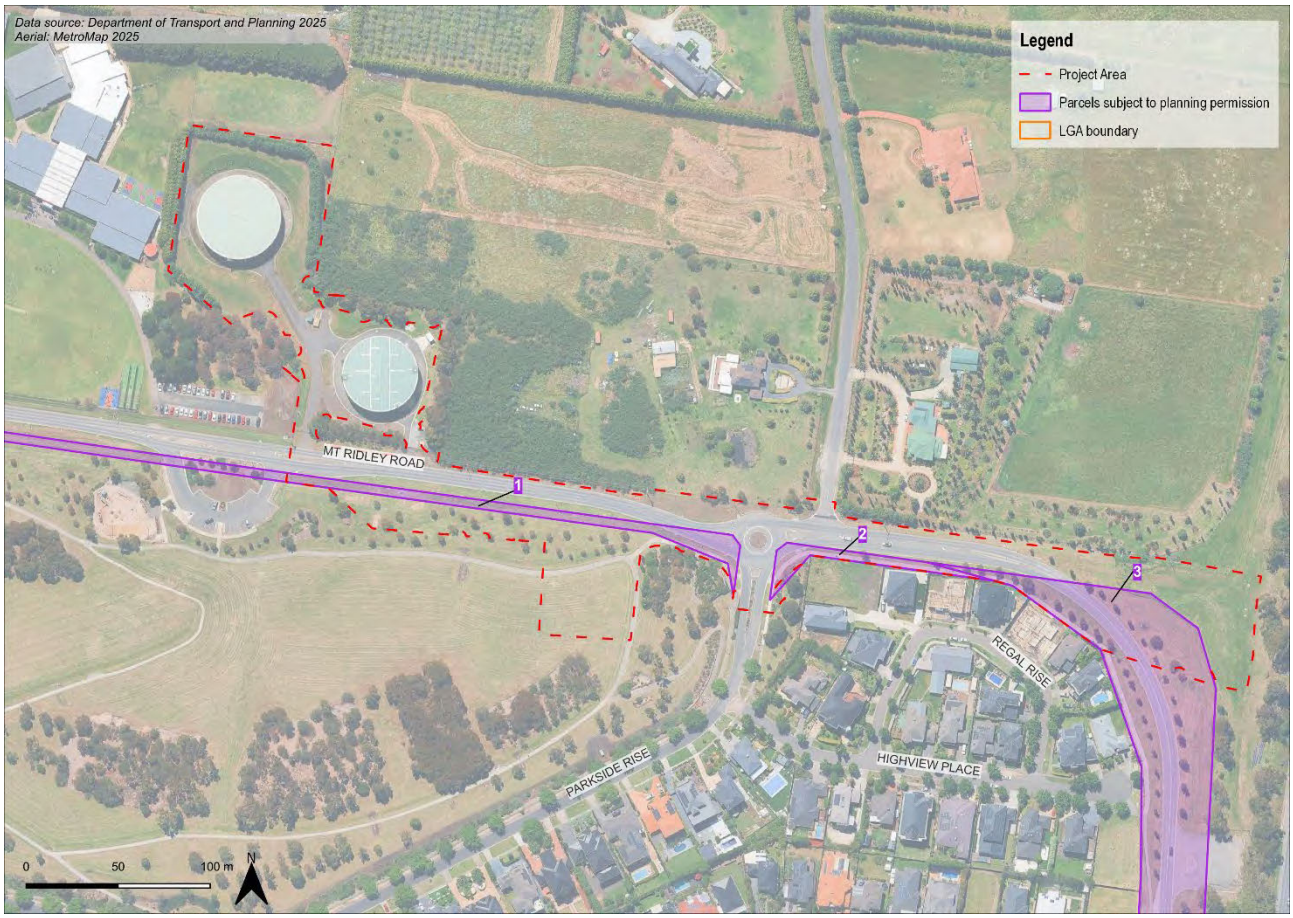

Figure 3: Land subject to planning approval – Mt Ridley Road (numbers relate to the Map IDs in Table 2)

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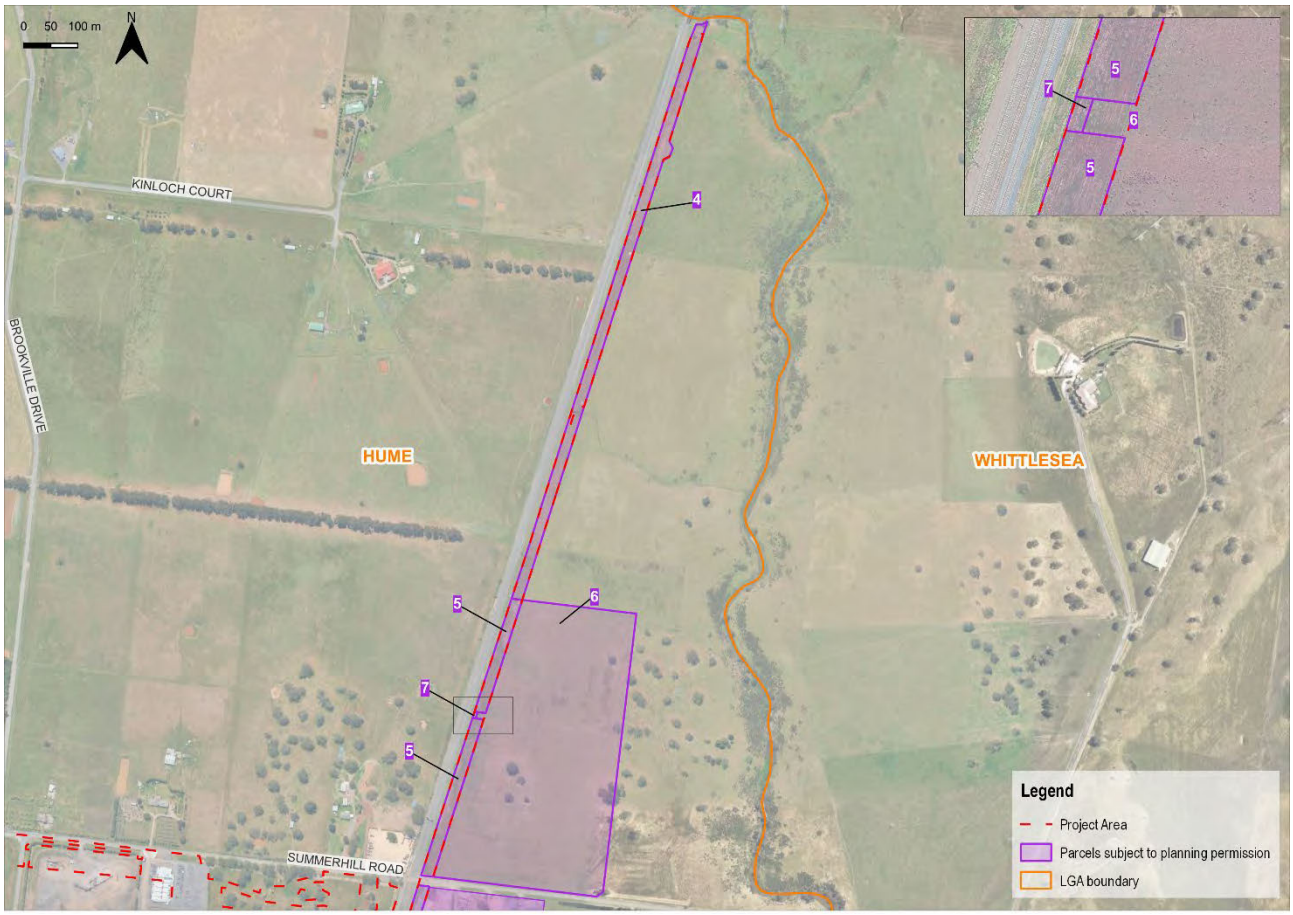

Figure 4: Land subject to planning approval – north of Summerhill Road (numbers relate to the Map IDs in Table 2)

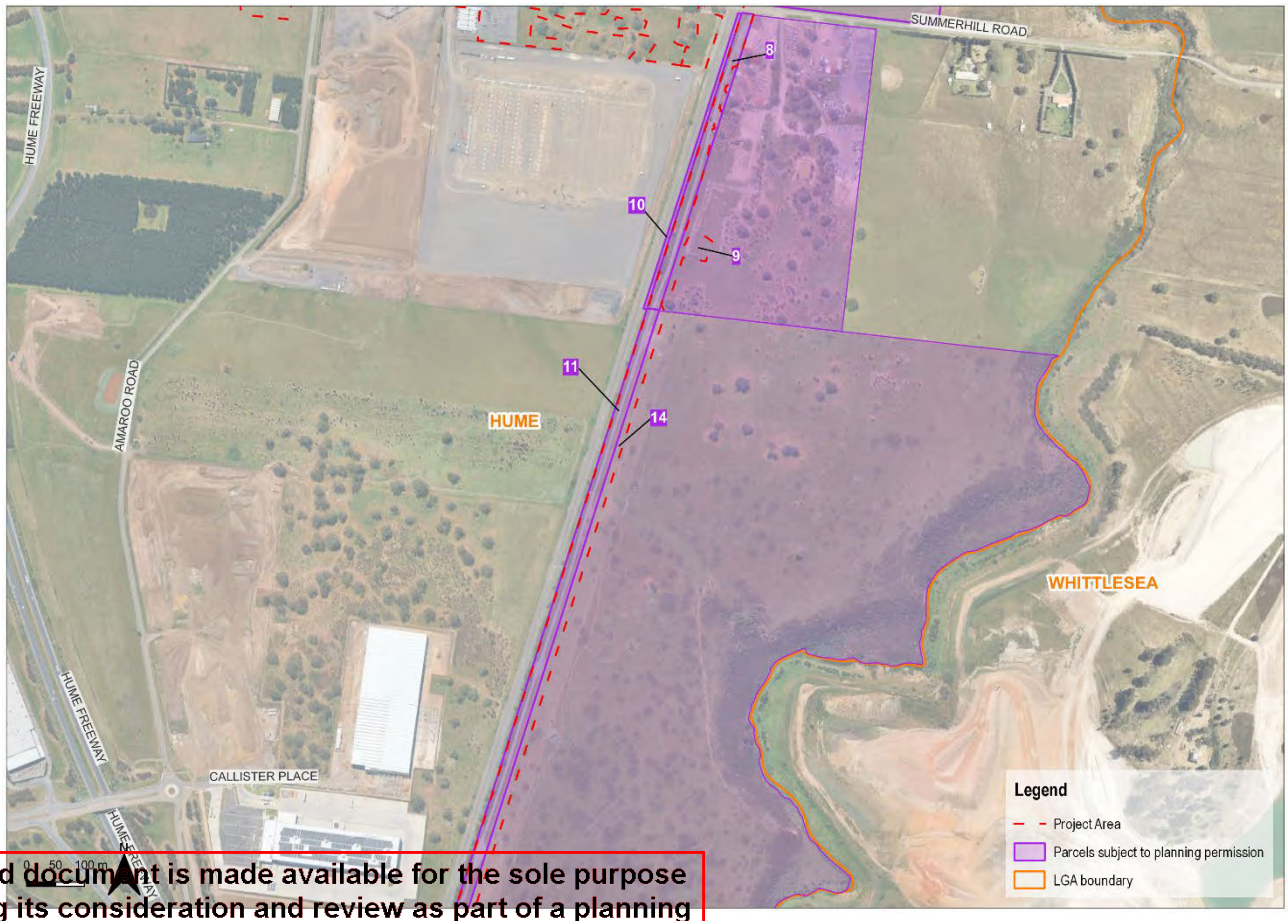

Figure 5: Land subject to planning approval – south of Summerhill Road (numbers relate to the Map IDs in Table 2)

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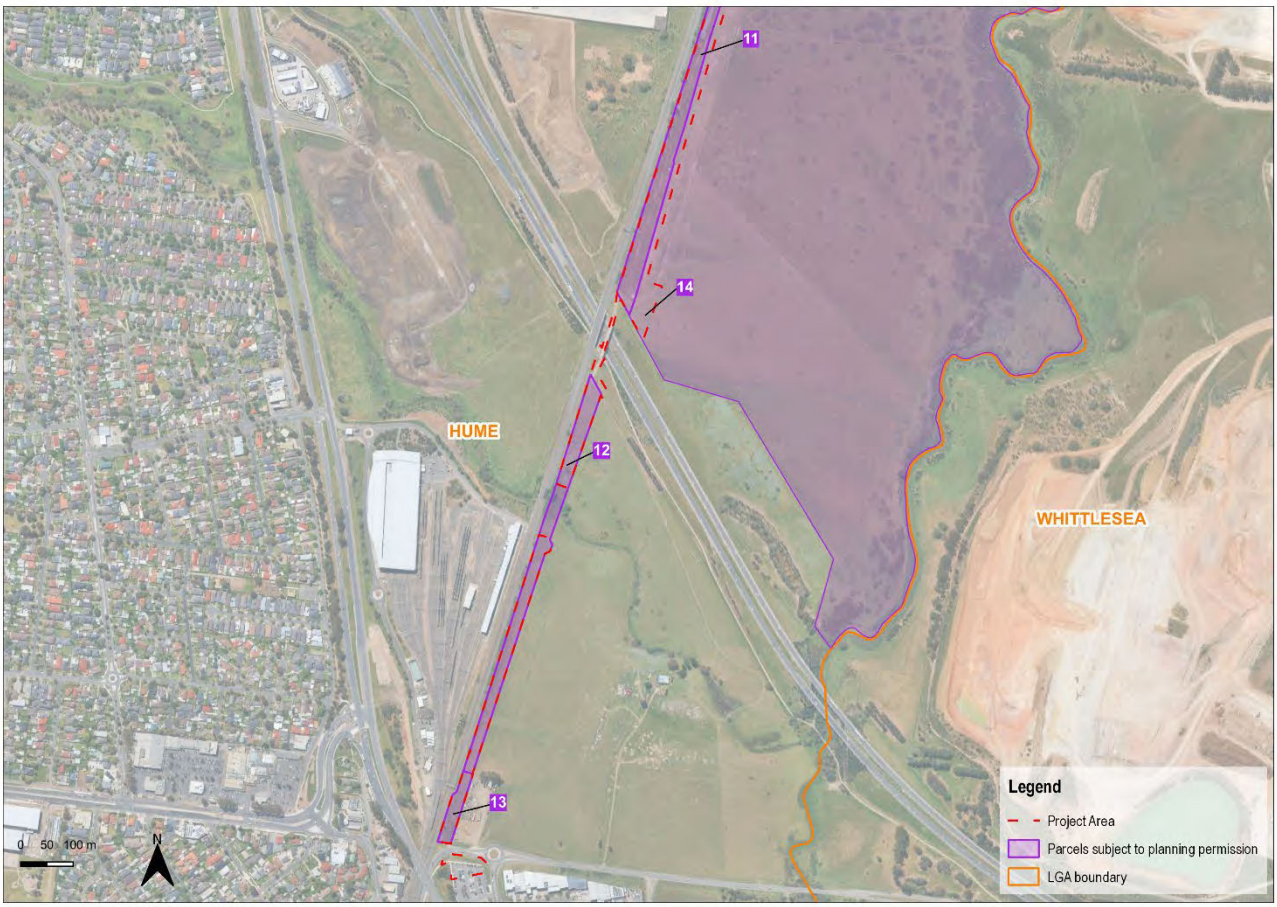

Figure 6: Land subject to planning approval – north of Craigieburn Road E (numbers relate to the Map IDs in Table 2)

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2 Legislation and planning context

The Hume Planning Scheme provides the framework that prescribes the statutory planning controls under the *Planning and Environment Act 1987* for the potion of the Project Area within the Hume City Council.

The proposed works are considered a 'minor utility installation' which is defined at *Clause 73.03 – Land Use Terms* of the Hume Planning Scheme as *'Land used for a utility installation comprising any of the following:*

a) Sewerage or water mains'

2.1 Planning policy framework

The planning policy framework includes a number of policies that are relevant to the consideration of the application, including:

- Clause 12.01-1S Protection of biodiversity
- Clause 12.01-2S Native vegetation management
- Clause 12.05-1S Environmentally sensitive areas
- Clause 12.06-1S Urban forests
- Clause 12.15-2S Landscapes
- Clause 14.02-2S Water quality
- Clause 15.03-1S Heritage conservation
- Clause 15.03-2S Aboriginal cultural heritage
- Clause 19.03-3S Integrated water management

The Project's response to each of the strategic planning policies identified above is outlined in Table 3.

2.2 Zones

As shown in Figure , the portion of the Project Area within the Hume LGA traverses several different zones under the Whittlesea Planning Scheme, including:

- Rural Conservation Zone – Schedule 1 (RCZ1)
- Transport Zone 2 (TRZ2)
- Rural Living Zone (RLZ)
- Urban Growth Zone (UGZ)
- Urban Growth Zone – Schedule 8 (UGZ8)
- Commercial Development Zone – Schedule 1 (CDZ1)
- Urban Floodway Zone (UFZ)
- Industrial 3 Zone (IN3Z)

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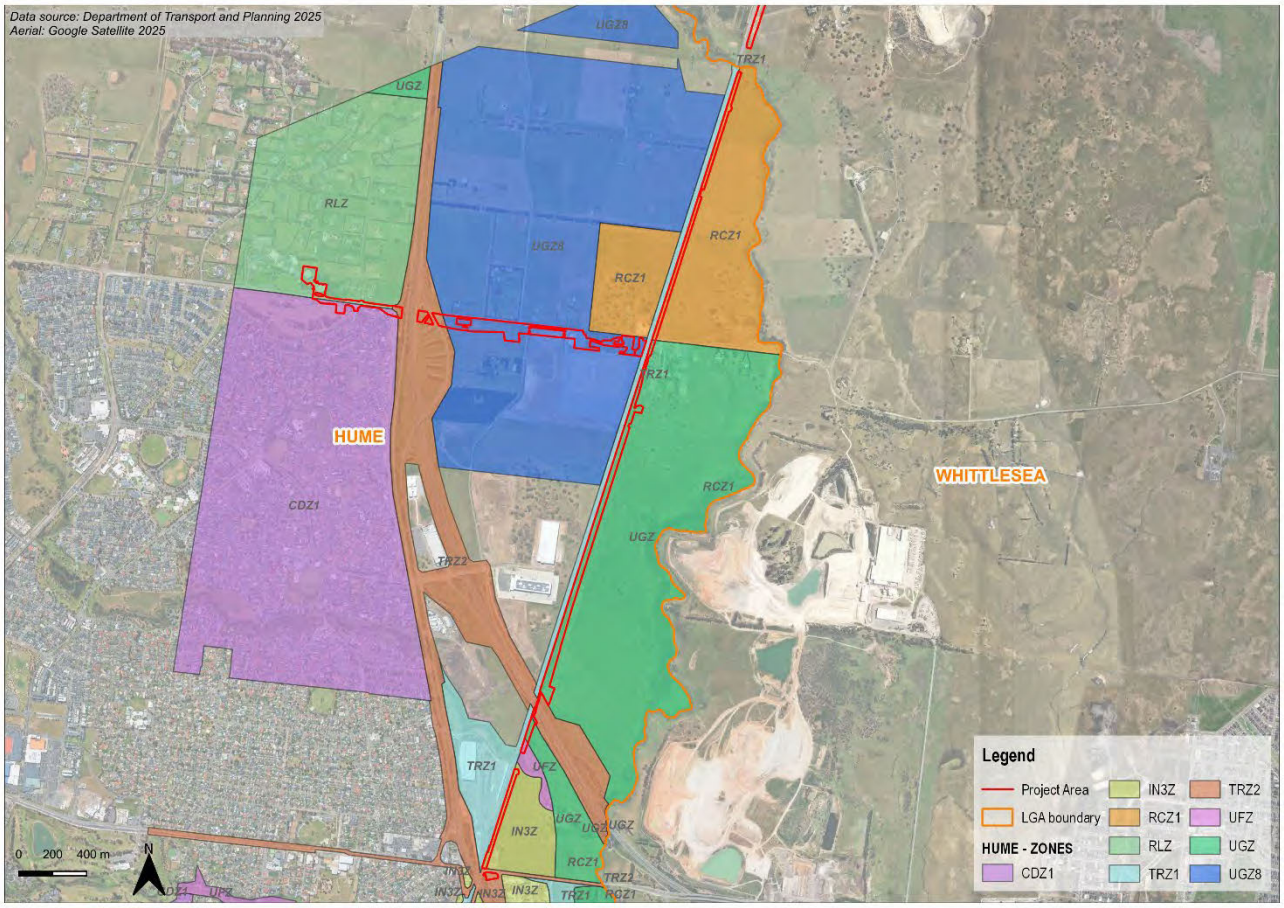

Figure 7: Hume planning zones in the Project Area

2.3 Overlays

The portion of the Project Area within the Hume LGA is affected by a number of overlays under the Hume Planning Scheme, as identified in Table 3.

Table 3: Hume planning overlays

Overlay	Figure reference
Environmental Significance Overlay – Schedule 2 (ESO2)	Figure 8
Environmental Significance Overlay – Schedule 10 (ESO10)	
Development Contributions Overlay – Schedule 8 (DCPO8)	Figure 9
Design and Development Overlay – Schedule 1 (DDO1)	
Development Plan Overlay – Schedule 7 (DPO7)	
Development Plan Overlay – Schedule 8 (DPO8)	
Public Acquisition Overlay – Schedule 2 (PAO2)	
Public Acquisition Overlay – Schedule 4 (PAO4)	
Rural Flood Overlay (RFO)	Figure 10
Bushfire Management Overlay (BMO)	

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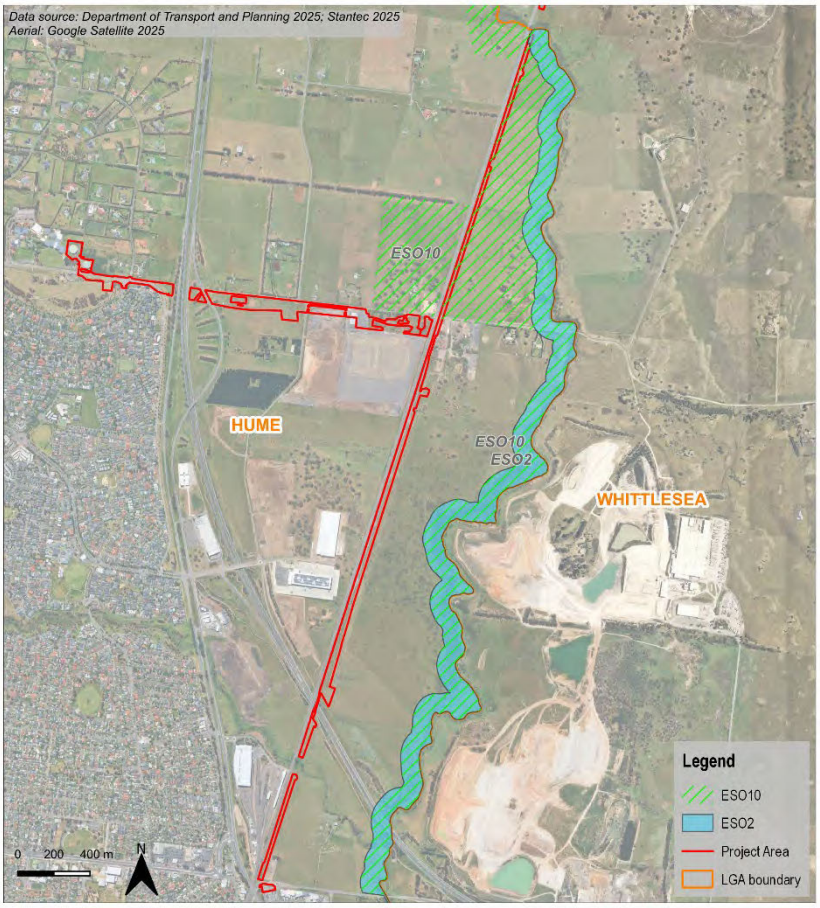

Figure 8: Hume planning overlays in the Project Area (ESO2, ESO10)

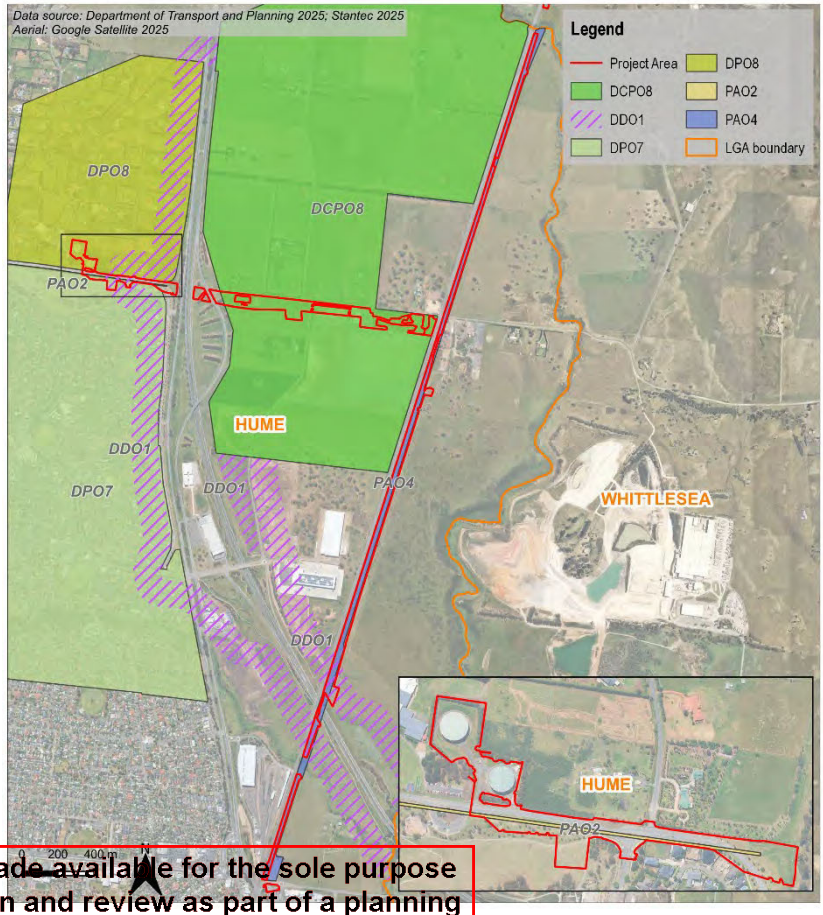

Figure 9: Hume planning overlays in the Project Area (DCPO8, DDO1, DPO7, DPO8, PAO2, PAO4)

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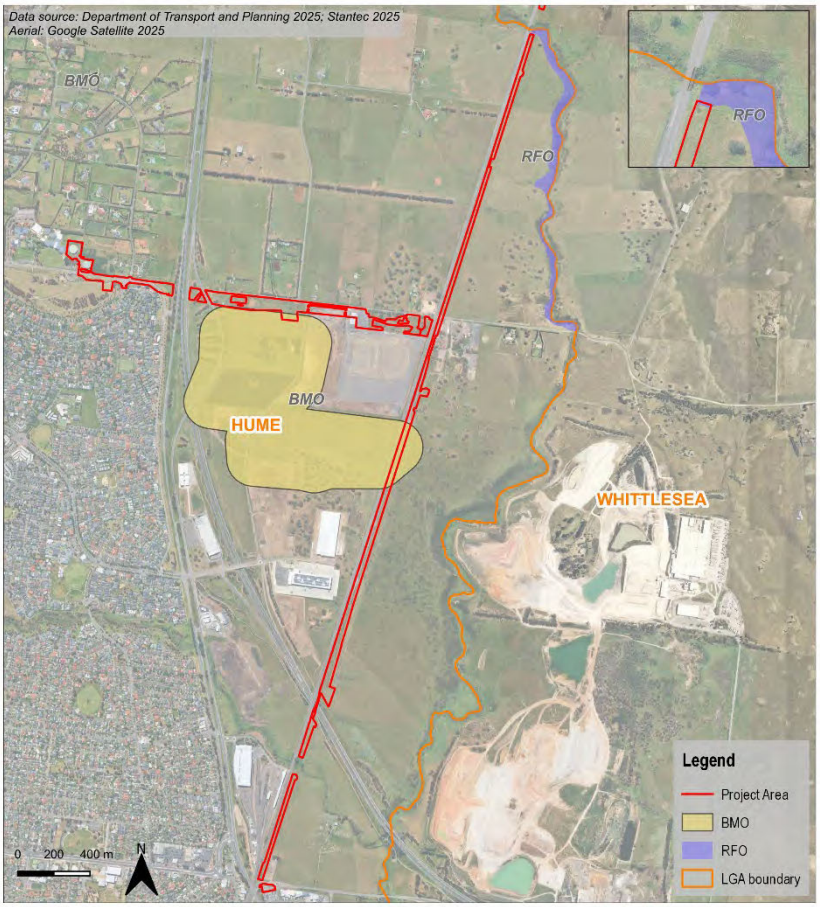

Figure 10: Hume planning overlays in Project Area (BMO, LSIO, RFO)

2.4 Particular provisions

Further to the relevant policies, zones and overlays, the proposed development triggers a permit for the removal of native vegetation pursuant to *Clause 52.17 – Native Vegetation* (Clause 52.17).

2.4.1 Clause 52.17

Clause 52.17 provides the framework for the management of native vegetation within the municipality. The purpose of Clause 52.17 is:

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):

- Avoid the removal, destruction or lopping of native vegetation.
- Minimise impacts from the removal, destruction or lopping of native vegetation that cannot be avoided.
- 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.

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3 Planning permit triggers

An assessment of the proposed works against the relevant controls of the Hume Planning Scheme was undertaken to determine the planning permit triggers.

The Project is considered a 'minor utility installation' as defined under Clause 73.03 – Land use terms of the Hume Planning Scheme as land used for a utility installation comprising of sewerage or water mains.

Under Clauses 62.01 (Uses not requiring a permit) and 62.02-1 (Buildings and works not requiring a permit) of the Hume Planning Scheme, minor utility installations are exempt from the requirements of a planning permit for land use and buildings and works.

The Project does however trigger a planning permit pursuant to the following clauses of the Hume Planning Scheme:

- Clause *42.01 – Environmental Significance Overlay* (ESO) under the following schedules:
  - ESO2 for removal of any vegetation
  - ESO10 for removal of native vegetation
- Clause *45.01 – Public Acquisition Overlay* (PAO) under the following schedule:
  - PAO2 for removal of vegetation and land use
- Clause *52.17 - Native Vegetation* for removal of native vegetation

The complete assessment of the planning controls under the Hume Planning Scheme is provided at Appendix F.

3.1 Environmental Significance Overlay – Schedule 2

Under the Hume Planning Scheme, the ESO2 ('Merri Creek and Moonee Ponds Creek and Environs') aims restore and revitalise the creeks, ensure the health of the creeks' natural systems, improve creek water quality and protect and enhance the local native riparian vegetation. The area covered by the ESO2 within the Project Area is south of the Merri Creek and is also covered by a Melbourne Strategic Assessment (MSA) conservation area.

A planning permit is triggered for the removal of one (1) scattered *Juncus species*, as shown in Figure 11 and Appendix G.

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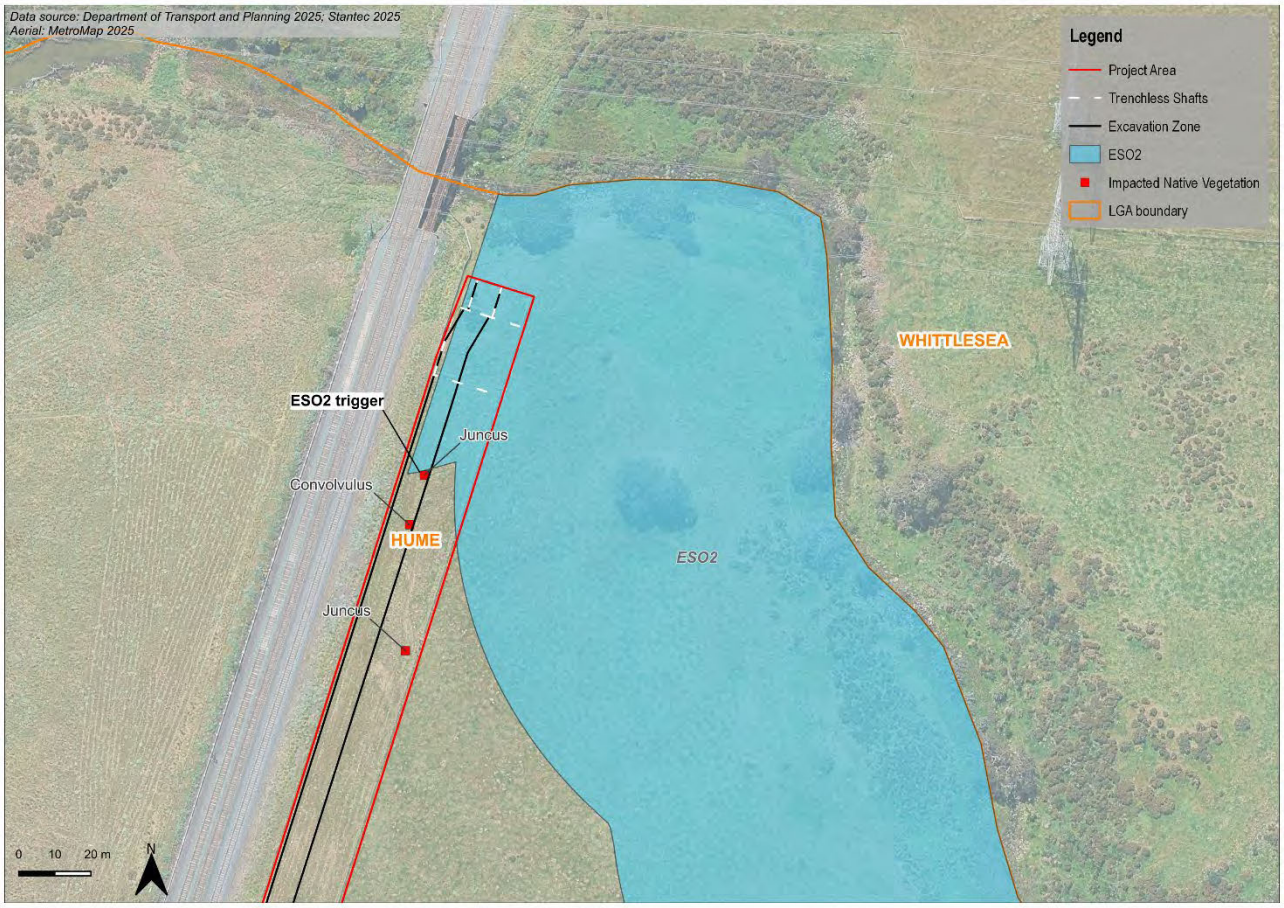

Figure 11: Vegetation impacts triggering a permit under the ESO2

3.2 Environmental Significance Overlay – Schedule 10

Under the Hume Planning Scheme, the ESO10 ('Rural Conservation Area') aims to protect and improve the viability of habitats, ecological communities, flora and fauna and genetic diversity, as well as to enhance the environmental and landscape values of the area. The areas covered by the ESO10 include some existing conservation areas, areas of significant remnant vegetation and a number of areas that provide habitat for threatened flora and fauna.

A planning permit is triggered for the removal of scattered vegetation across where the Project Area intersects with the ESO10, as identified in Figure 12 and Appendix G. The vegetation which requires removal within the ESO10 to facilitate the Project comprises:

- Five (5) patches of vegetation
- Four (4) x Convolvulus
- Five (5) x Juncus[1]
- Three (3) x Wallaby Grass
- One (1) x Kangaroo Grass
- One (1) x Blue Devil
- One (1) x Brown Black Wallaby Grass

Further information on the native vegetation removal is provided in the Detailed Flora and Fauna Assessment (Ripple JV 2025) at Appendix B.

[1] One (1) of the Juncus species is the same specimen as the ESO2 trigger

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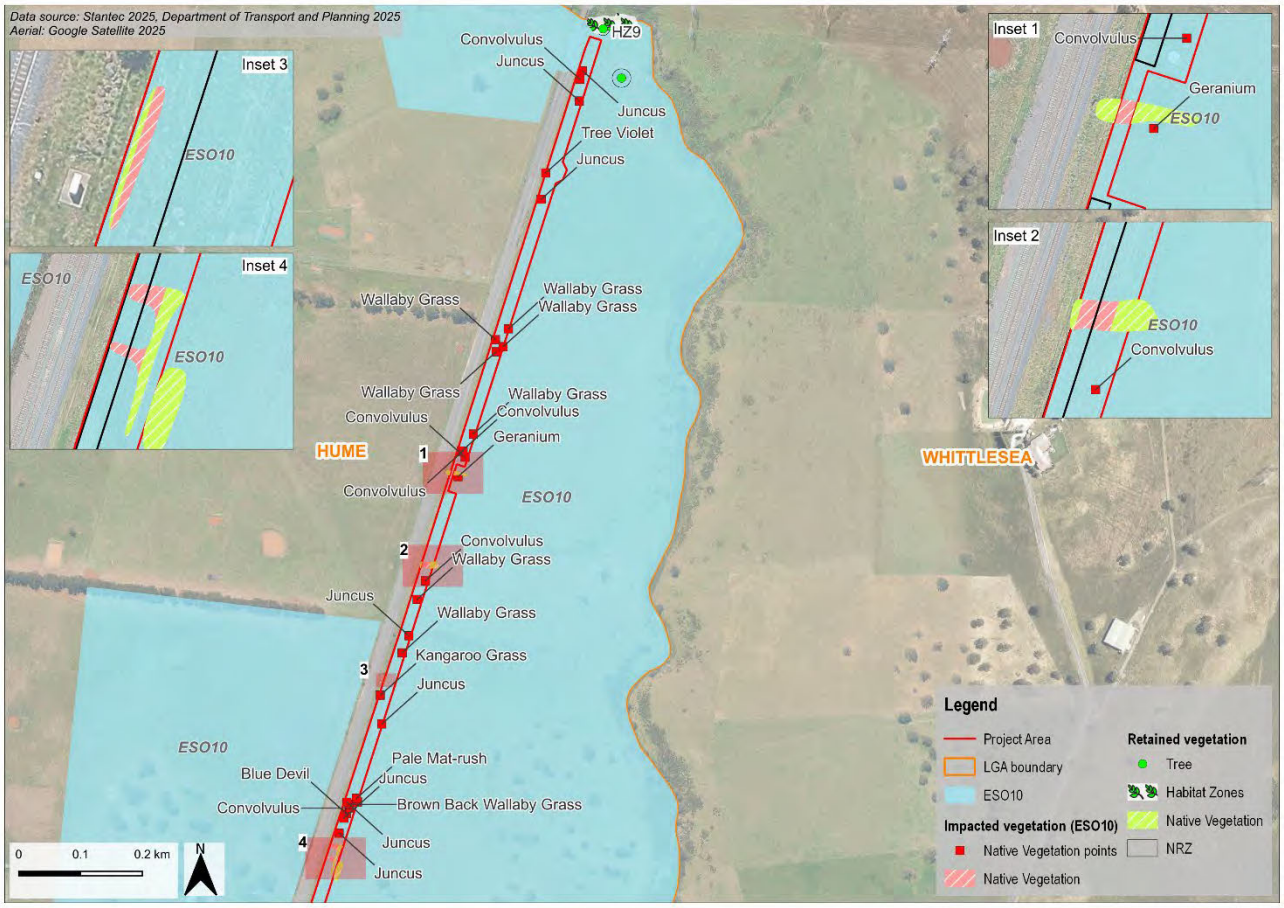

Figure 12: Vegetation impacts triggering a permit under the ESO10

3.3 Public Acquisition Overlay – Schedule 2

Under the Hume Planning Scheme, the PAO2 aims to reserve land for the purpose of 'road construction and widening', for which Hume City Council is the designated acquiring authority. The PAO2 intersects with the Project Area along Mt. Ridley Road (refer to Figure 13).

A planning permit is for the following pursuant to the PAO2 for:

- Use of land for a minor utility installation, and
- Removal of vegetation

3.3.1 Land use

The extent of the use of the land within the PAO2 for the purposes of a minor utility include the NDW pipeline alignment, excavation zone and access corridor as shown in Figure 13 and Appendix G.

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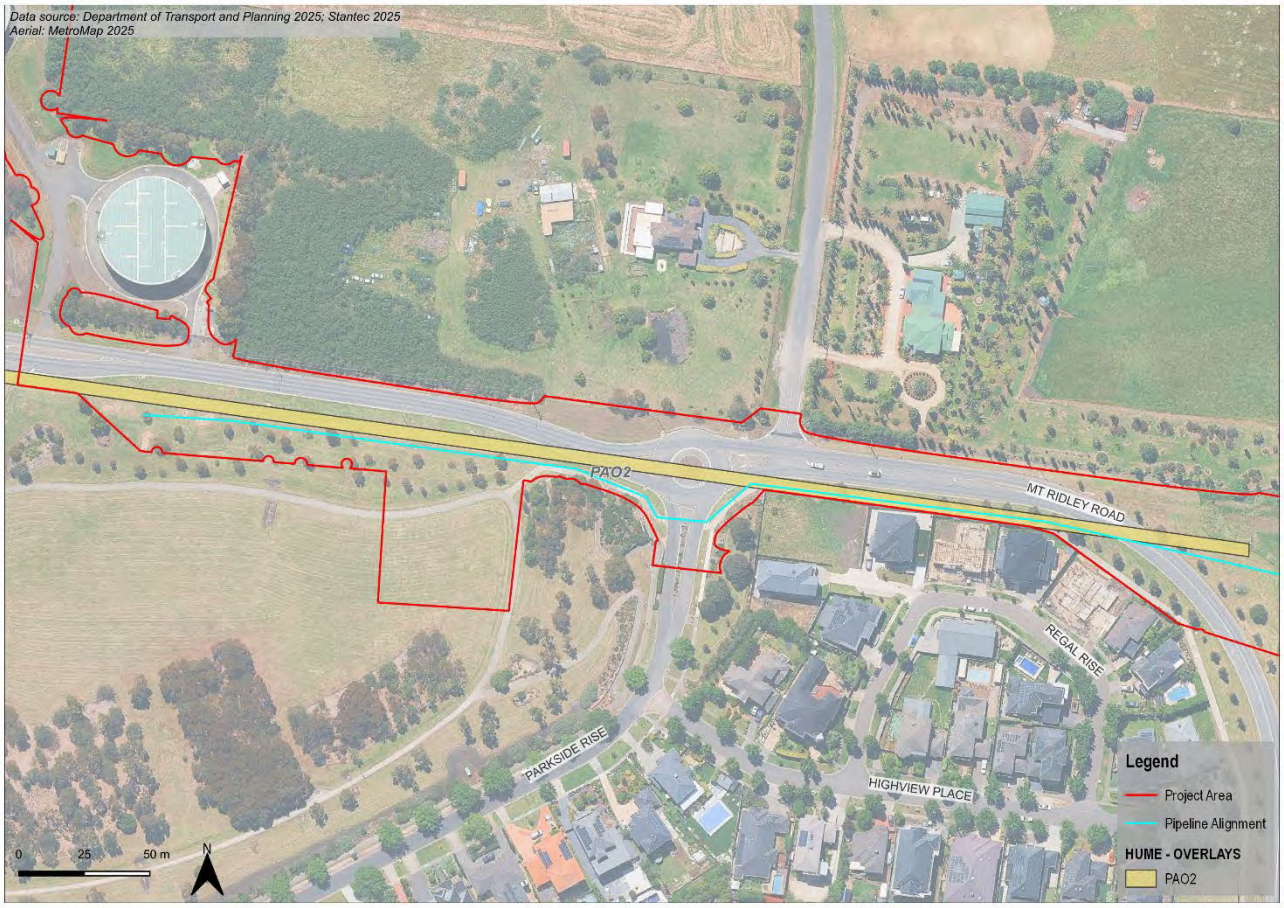

Figure 13: Land use triggering a permit under the PAO2

3.3.2 Vegetation removal

Vegetation including 10 trees are required to be removed withing the PAO2 to facilitate the Project as shown in Figure 14 and Appendix G. Details of these trees are provided in Table 4.

Table 4: Vegetation (trees) to be removed within the PAO2

Tree ID	Botanical name	Common name	Height (m)	TPZ (m)	DSH (m)	Health	Retention value
53	*Eucalyptus polyanthemos*	Red Box	10	2.76	0.23	Good	Medium
54	*Eucalyptus polyanthemos*	Red box	6	2.28	0.19	Good	Medium
55	*Eucalyptus polyanthemos*	Red box	7	2.52	0.21	Fair	Medium
56	*Eucalyptus melliodora*	Yellow box	7	2.4	0.2	Good	Medium
57	*Eucalyptus melliodora*	Yellow box	8	2.4	0.2	Good	Medium
58	*Eucalyptus melliodora*	Yellow box	9	2.64	0.22	Good	Medium
59	*Eucalyptus melliodora*	Yellow box	10	2.88	0.24	Good	Medium
60	*Acacia melanoxylon*	Blackwood	9	4.56	0.38	Fair	Low
64	*Corymbia maculata*	Spotted Gum	10	2.64	0.22	Good	Low
89	*Corymbia maculata*	Spotted Gum	9	2.04	0.17	Good	Low

NOTE:
TPZ = Tree protection zone
DSH = diameter at standard height (1.4 metre)

Further information on the vegetation (tree) removal is provided in the Arboricultural Impact Assessment (AIA) (Ripple JV 2025) at Appendix H.

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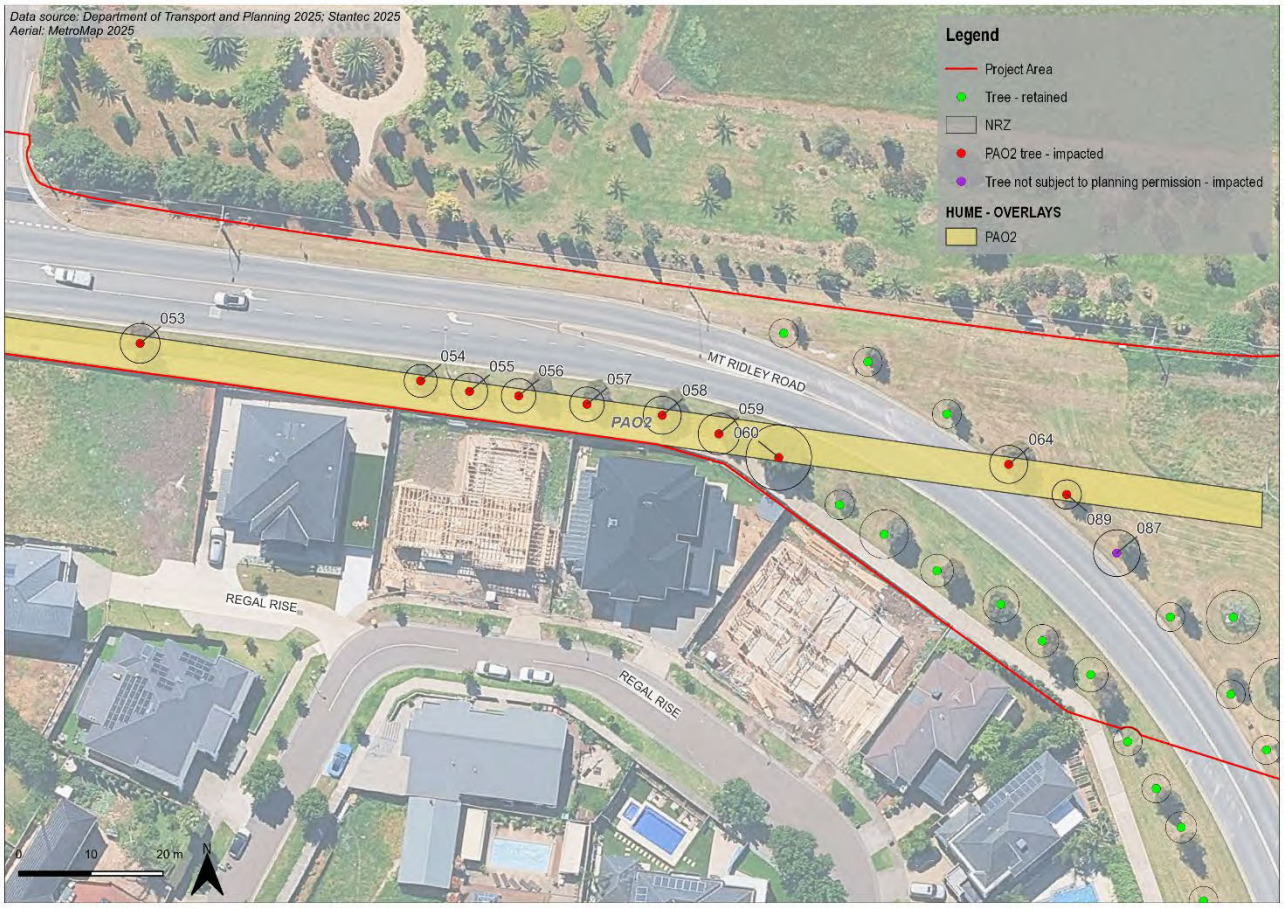

Figure 14: Vegetation impacts triggering a permit under the PAO2

3.4 Clause 52.17 – Native vegetation

A planning permit is also triggered for the removal of native vegetation pursuant to Clause 52.17 of the Hume Planning Scheme.

The extent of native vegetation removal triggering a permit under Clause 52.17 to facilitate the project within the City of Hume is shown in Figure 15, Figure 16, Figure 17 and Appendix G, and comprises:

- 0.444 hectares of patch quality native vegetation. This includes:
    - 0.318 hectares of Plains Grassland (EVC132_61)
    - 0.126 hectares of Plains Grassy Woodland (EVC55_61), and
- Scattered native flora at low density (well under 25% coverage to be considered patch-quality native vegetation). Species composition varies across the construction corridor; however, scattered individuals to be removed include Windmill Grass, Bindweed, Blue Devil, Rush (Juncus sp.), Tree Violet, Brown-back Wallaby-grass, Wallaby Grass, Spear Grass and Kangaroo Grass.

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Figure 15: Vegetation impacts triggering a permit under Clause 52.17 (~110 metres south of Summerhill Road)

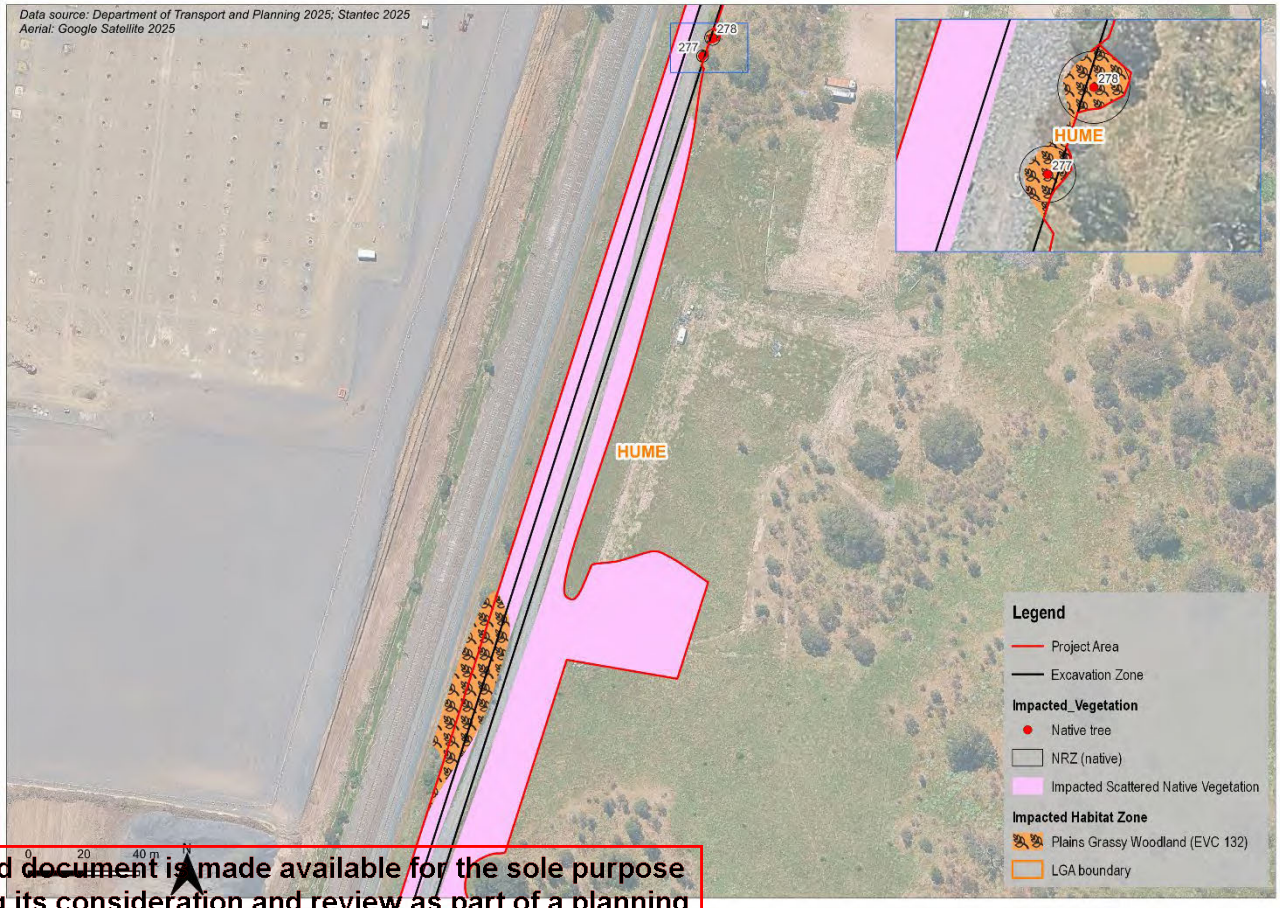

Figure 16: Vegetation impacts triggering a permit under Clause 52.17 (~230 metres south of Summerhill Road)

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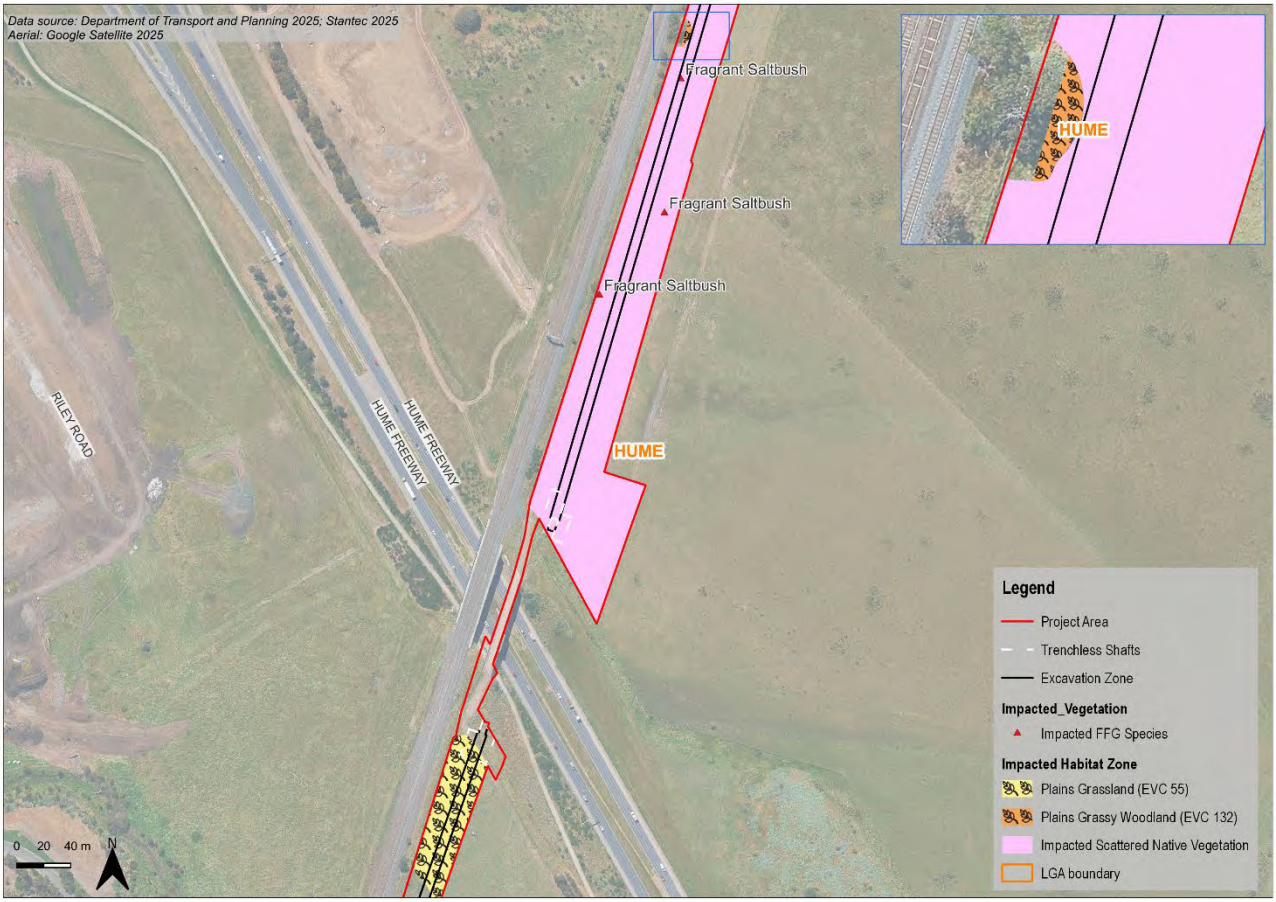

Figure 17: Vegetation impacts under Clause 52.17 (north and south of Hume Freeway)

Further information on the native vegetation removal is provided in the Detailed Flora and Fauna Assessment (Ripple JV 2025) at Appendix B.

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4 Planning analysis

4.1 Policy planning framework

In addition to the clauses that trigger a planning permit, the application has considered the relevant sections of the Planning Scheme's planning policy framework. This framework was reviewed against the proposed works. It is considered that the proposed works support the objectives of the planning policy framework as outlined in Table .

Table 5: Planning policy framework

Clause	Relevant objectives	Response
Environment and landscape values		
Clause 12.01-1S Protection of biodiversity Clause 12.01-1L River Red Gum Protection Clause 12.01-2S Native vegetation management Clause 12.05-1S Environmentally sensitive areas Clause 12.05-2L Urban forests	• To protect and enhance Victoria's biodiversity • To retain and provide for the long-term viability of River Red Gums. • To ensure that there is no net loss to biodiversity as a result of the removal, destruction or lopping of native vegetation. • To protect and conserve environmentally sensitive areas (e.g. the Merri Creek). • To protect and enhance tree canopy in urban areas.	YVW has identified biodiversity values present within the Project Area through undertaking a Detailed Flora and Fauna Assessment (DFFA). The values identified such as threatened species, ecological communities and remnant native vegetation have been considered during the Project's design where the Project has sought to avoid impacts to vegetation and fauna habitat where practicable. For example, the Project has adopted non-destructive construction methodologies at certain ecologically sensitive locations along the alignment (e.g. the creek crossings) and has altered the alignment to avoid sensitive areas where possible. The Project Team has embedded the mitigation measures proposed in the DFFA into design considerations to reduce the impact to ecologically sensitive areas where possible. Works will be delivered in accordance with a project-specific Environmental Management Plan EMP), which will define the environmental management controls during construction, including the protection of ecological values. Controls such as no-go zones for trees and vegetation to be retained will be implemented.
Natural resource management		
Clause 14.02-2S Water quality	• To protect water quality.	The Project's EMP will include management controls for erosion, sediment and surface water runoff impacts associated with the Project, to prevent the degradation of local waterways and waterbodies.
Built environment and heritage		
Clause 15.03-1S Heritage conservation	• To ensure the conservation of places of heritage significance.	One (1) historical archaeological site, VHI H7822-0731 (Occupation Stock Crossing Site), is located within the Project Area in the City of Hume. A Consent to Damage (Less than 50%) of this site will be sought from Heritage Victoria, the conditions of which will be included in the Project's EMP. The Project's EMP will also consider management of historical through outlining an unexpected finds procedure, in the event an unexpected historical artefact is encountered.

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Clause	Relevant objectives	Response
Clause 15.03-2S Aboriginal cultural heritage	• To ensure the protection and conservation of places of Aboriginal cultural heritage significance.	CHMP 19688 has been approved for the Project. General conditions and conditions relating to the management of Aboriginal Places prescribed in the CHMP will be implemented before, during and after the proposed works, as required by the CHMP. Ongoing management of Aboriginal cultural heritage will also be documented in the Project's EMP, such as an unexpected finds procedure.
Development infrastructure		
Clause 19.03-3S Integrated water management	• To sustainably manage water supply and demand, water resources, wastewater, drainage and stormwater through an integrated water management approach.	The provision of non-potable water (i.e. non-drinking water) to households and businesses is an important aspect of a sustainable water system as it reduces demand for drinking water, which is a resource predicted to become scarcer in the future due to population growth and climate change. As such, the Project is playing an important role in helping achieve the integrated water management objectives of the Whittlesea/Hume area.

4.2 Clause 42.01 (ESO2 and ESO10)

YVW has sought to identify the biodiversity values present within the Project Area, including within the ESO2 and ESO10, through commissioning a DFFA). Patch quality native vegetation 'habitat zones' comprising dense, emergent vegetation including Spiny Rush and Giant Rush, with multiple mature River Red Gums was observed along the Merri Creek corridor (within the ESO2), which is also known habitat for the Growling Grass Frog. To minimise impact to this ecologically important remnant native vegetation and threatened species habitat, trenchless construction methodologies will be adopted for the Merri Creek crossing, reducing the amount of vegetation and habitat impacted within the riparian area and the applicable ESOs (ESO2 and ESO10). As such, impacts to Escarpment Shrubland (EVC895) have been completely avoided within Hume and the impacted vegetation is limited to a small coverage of native vegetation (five small patches) and several scattered shrubs and grasses (Wallaby and Kangaroo grasses, *Convovuvlus* and *Juncus species*) within the ESOs, which predominantly consist of exotic agricultural grasses or weeds.

Due to the small scale of vegetation removal proposed, it is unlikely to result in a change to the landscape and natural characteristics of the Merri Creek and its environs, and the urban and rural conservation areas. Similarly, the pipeline infrastructure itself will be underground, resulting in no impact to the environmental character of the area.

Mitigation measures outlined in the DFFA and AIA will be implemented during construction to reduce off-site impacts to the Merri Creek and conservation areas, such as installing sediment control measures to prevent run-off and preserve water quality of the Merri Creek, and installing no-go zones around vegetation to be retained.

Overall, vegetation removal has been minimised through careful selection of the alignment route, including realignment in sections, restricting the construction footprint largely to existing, highly disturbed YVW freehold land or agricultural/grazed paddocks and implementing the use of trenchless excavation at waterway crossings to avoid areas of high-quality native vegetation.

4.3 Clause 45.01 (PAO2)

Land use within the PAO2 will be limited to less than 370 meters in length (total length of the PAO2 is approximately 924 metres) to allow for the NDW main pipeline alignment. The pipeline will be underground, resulting in no impacts to Hume City Council for the subsequent road works for the which the PAO was placed. The new pipeline alignment and depth will be reflected in YVW's asset location system, enabling the new infrastructure to be identified for future works (i.e. road works relating to the PAO).

The 10 trees proposed to be removed within the PAO2 have a retention value of either low or medium and can therefore be readily replaced with similar species once the works are complete. Consultation with

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Council will take place prior to vegetation replacement to confirm species and avoid planting in areas that will subsequently require removal for Council's road works.

The land use and consequent vegetation removal is consistent with the Hume City Council's municipal planning strategies and Planning Policy Framework, as the NDW main infrastructure proposed will provide the municipality with essential water supply services that will lessen the burden on drinking water, supporting a sustainable water management approach.

4.4 Clause 52.17 – Native vegetation

Pursuant to Clause 52.17 of the Hume Planning Scheme, an application to remove, destroy or lop native vegetation must comply with the application requirements specified in the Guidelines.

An assessment against the Guidelines is provided in Table 6.

Table 6: Clause 52.17 application requirements under the intermediate assessment pathway

No.	Application requirement	Response
1	Information about the native vegetation to be removed, including: • the assessment pathway and reason for the assessment pathway. • a description of the native vegetation to be removed • maps showing the native vegetation and property in context • the offset requirement, that will apply if the native vegetation is approved to be removed.	The native vegetation proposed to be removed is within Location, as per the Guidelines with a total of 0.444 hectares of patch quality native vegetation to be impacted. As such, the permit application falls under the intermediate assessment pathway. The patch quality native vegetation comprises: • 0.318 hectares of Plains Grassland (EVC132_61), and • 0.126 hectares of Plains Grassy Woodland (EVC55_61). Additionally, scattered native flora at low density (well under 25% coverage to be considered patch-quality native vegetation) will be impacted to facilitate the project. The offset requirement for native vegetation removal is 0.250 General Habitat Units (GHUs) and 0 large trees. No offsets are required for the scattered native flora at low density, as this does not meet the definition of a patch, a patch tree or a scattered tree outlined in the Guidelines. Further detail is provided in the Detailed Flora and Fauna Assessment (Ripple JV 2025) at Appendix B.
2	Topographic and land information relating to the native vegetation to be removed, showing ridges, crests and hilltops, wetlands and waterways, slopes of more than 20 percent, drainage lines, low lying areas, saline discharge areas, and areas of existing erosion, as appropriate. This may be represented in a map or plan.	Provided in the Detailed Flora and Fauna Assessment (Ripple JV 2025) at Appendix B.
3	Recent, dated photographs of the native vegetation to be removed.	Photographs of the native vegetation to be removed is provided in the Detailed Flora and Fauna Assessment (Ripple JV 2025) at Appendix B.
4	Details of any other native vegetation approved to be removed, or that was removed without the required approvals, on the same property or on contiguous land in the same ownership as the applicant, in the five year period before the application for a permit is lodged.	There are no records of native vegetation removal by YVW on the same property or on contiguous land in the same ownership as the applicant in the past five (5) years.
5	An avoid and minimise statement. The statement describes any efforts to avoid the removal of, and minimise the impacts on the biodiversity and other values of native vegetation, and how these efforts focussed on areas of native vegetation that have the most value. The statement should include a description of the following: • Strategic level planning – any regional or landscape scale strategic planning process that the site has been subject	Native vegetation removal within the City of Hume has been minimised as far as reasonably practicable through careful selection of the alignment route, including realignment in sections, restricting the construction footprint largely to existing, highly disturbed YVW freehold land or agricultural/grazed paddocks and

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No.	Application requirement	Response
	to that avoided and minimised impacts on native vegetation across a region or landscape • Site level planning – how the proposed use or development has been sited or designed to avoid and minimise impacts on native vegetation. • That no feasible opportunities exist to further avoid and minimise impacts on native vegetation without undermining the key objectives of the proposal.	implementing the use of trenchless excavation at waterway crossings to avoid areas of high-quality native vegetation.
6	A copy of any Property Vegetation Plan contained within an agreement made pursuant to section 69 of the Conservation, Forests and Lands Act 1987 that applies to the native vegetation to be removed	Not applicable.
7	Where the removal of native vegetation is to create defendable space, a written statement explaining why the removal of native vegetation is necessary. This statement must have regard to other available bushfire risk mitigation measures. This statement is not required when the creation of defendable space is in conjunction with an application under the Bushfire Management Overlay	Not applicable as the vegetation clearance is not for defendable space.
8	If the application is under Clause 52.16, a statement that explains how the proposal responds to the Native Vegetation Precinct Plan considerations at decision guideline 8.	Not applicable as the application responds to Clause 52.17.
9	An offset statement providing evidence that an offset that meets the offset requirements for the native vegetation to be removed has been identified, and can be secured in accordance with the Guidelines. A suitable statement includes evidence that the required offset: • is available to purchase from a third party, or • will be established as a new offset and has the agreement of the proposed offset provider, or can be met by a first party offset.	A report listing native vegetation credits available to purchase through the Native Vegetation Credit Register is provided at Appendix I.

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5 Construction management

Environmental and approvals management throughout construction of the Project will be governed by a project-specific EMP to support compliance with environmental regulatory requirements. The EMP will outline the construction methodology in further detail and define construction and environmental management controls.

The EMP will be a 'live' document for the duration of construction, assessing the risk and likelihood of potential construction related hazards, such as dust, erosion and sediment, noise, flora and fauna, runoff and spills. Environmental controls will be implemented to reduce the risk of harm to human health and the environment.

Prior to construction, temporary environmental controls will be installed in accordance with the EMP including tree protection, sediment controls and identifying no-go zones for sensitive areas of the Project Area. All contractors engaged in construction of the Project will be made aware of the ecologically sensitive areas to reduce the likelihood of disturbance and unauthorised incursions into protected areas.

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6 Summary

The proposal to grant a planning permit to facilitate the construction of the Aurora to Bald Hill NDW main is considered consistent with the purpose and intent of the policies and requirements contained within the Planning Scheme.

The proposed NDW Main is required to improve the reliability of recycled water supply to YVW's customers in Melbourne's Northern Growth Area.

The works have been iteratively designed and sited to protect the environmental values of the Project Area and surrounding landscape. Where possible, YVW has sought to avoid impacts to ecological and heritage values and where not possible, appropriate mitigations will be implemented to minimise impact under the required regulatory approval regimes (i.e. implementation of a EMP and CHMP).

We have determined that the NDW Main is appropriate and has demonstrated due regard to all of the relevant planning considerations. We therefore request that a permit be granted in respect of the associated application.

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APPENDICES

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Appendix A: Design drawings

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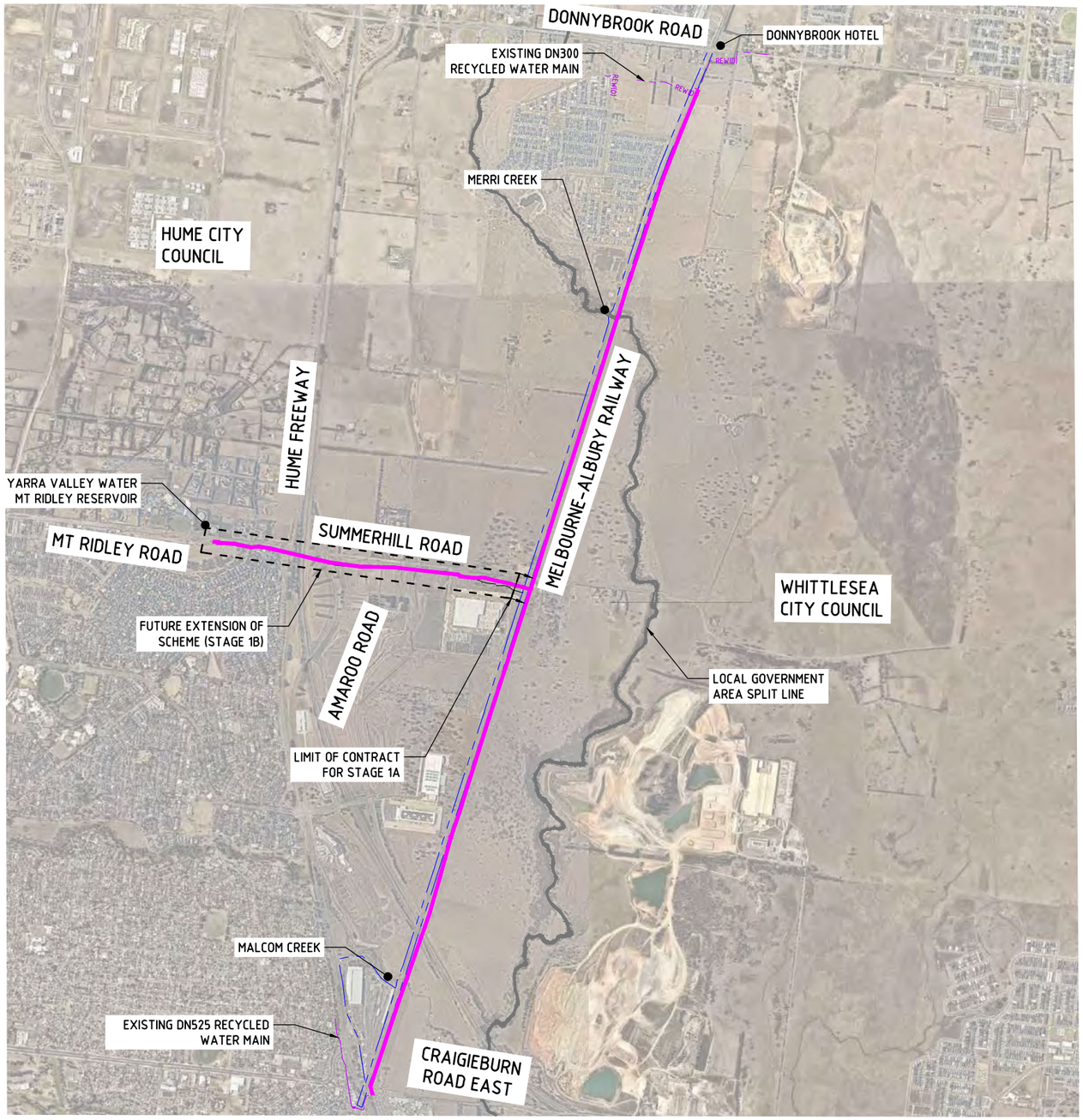
PWGW0684 - AURORA TO BALD HILL RECYCLED WATER MAIN STAGE 1



SITE PLAN

SCALE: NTS

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WARNING

BEWARE OF UNDERGROUND SERVICES THE LOCATION OF UNDERGROUND SERVICES ARE APPROXIMATE ONLY AND THEIR EXACT POSITION SHALL BE PROVEN ON SITE. NO GUARANTEE IS GIVEN THAT ALL EXISTING SERVICES ARE SHOWN.

ISSUED FOR TENDER
NOT FOR CONSTRUCTION

REV	DATE	DRAWN	DESIGNED	CHECKED	APPROVED	DESCRIPTION
D	03.10.25	RIPPLE	PG	PA	LS	ISSUED FOR REVIEW
C	02.09.25	RIPPLE	PG	PA	LS	ISSUED FOR REVIEW
B	02.07.25	RIPPLE	PG	PA	LS	ISSUED FOR REVIEW
A	02.04.25	RIPPLE	PG	PA	LS	ISSUED FOR REVIEW

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PROJECT NAME: PWGW0684 - AURORA TO BALD HILL RECYCLED WATER MAIN - STAGE 1

RIPPLE
BECA STANTEC JOINT VENTURE

DRAWN	DRAWING CHECK
PG	SB
DESIGNED	DESIGN REVIEW
AA	PA
DESIGN MANAGER	APPROVED
AA	LS

LOCATION ID: -
LOCATION: -
SUBURB | MELWAY REF

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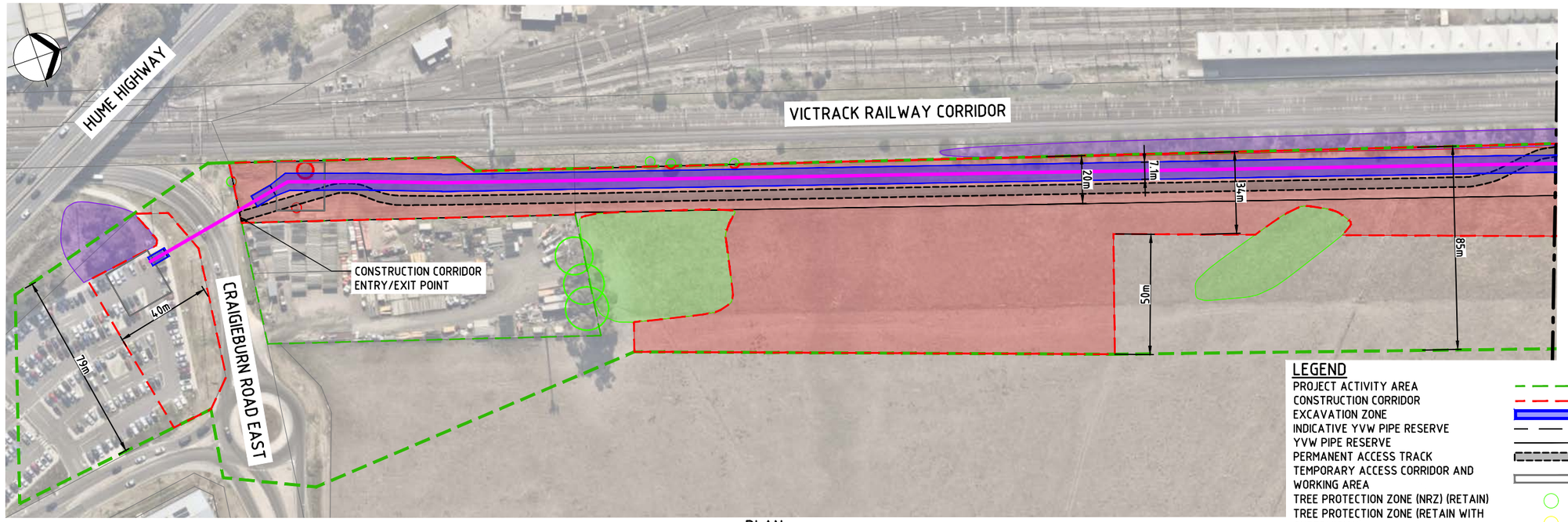
ASSET: R012
AURORA TO BALD HILL RECYCLED WATER MAIN - STAGE 1
TITLE: COVER SHEET

SCALE: AS SHOWN
SURVEY DATUM: MGA2020
SUPERSEDED DWG No: -
REVISION: C

YVW PROJECT No: PWGW0684
DISCIPLINE: G
DRAWING No: R012-G-0001

XREFS: 6590950-X-NewMap; 6590110-X-Subdivision Masterplan Summerhill Rd (Rev H - 23-06-23); 6590119-X-DoPT Reservoir Road Widening; 6590950-X-VicTrack Railway Boundary (from nearmap)
Plotted: 29/10/2025 12:15pm by Dinushka Fernando File: P:\659\65590950\I-WIP\00-CAD\6590950-R012-G-0001.dwg Plot style: ----
YVW GENERAL DRAWING TEMPLATE 1.1 - 11.12.2020



PLAN

SCALE: 1:1000

REFER TO PLAN BELOW

LEGEND

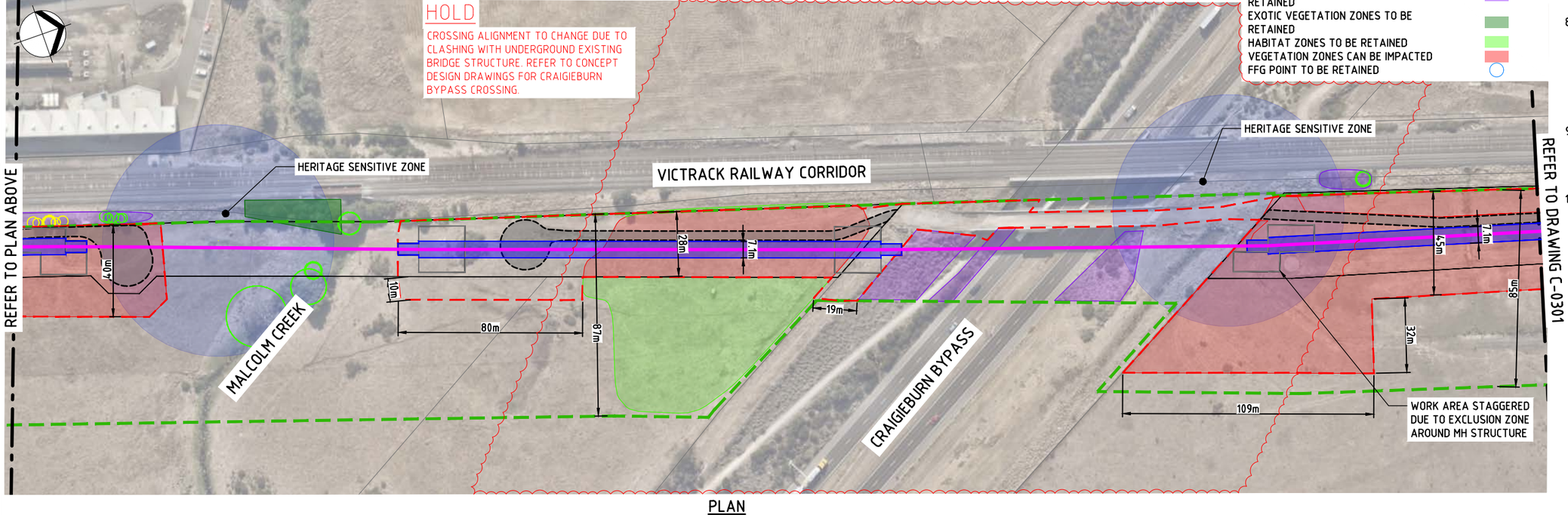
- PROJECT ACTIVITY AREA
- CONSTRUCTION CORRIDOR
- EXCAVATION ZONE
- INDICATIVE YVW PIPE RESERVE
- YVW PIPE RESERVE
- PERMANENT ACCESS TRACK
- TEMPORARY ACCESS CORRIDOR AND WORKING AREA
- TREE PROTECTION ZONE (NRZ) (RETAIN)
- TREE PROTECTION ZONE (RETAIN WITH SUPERVISION)
- TREE PROTECTION ZONE (REMOVE)
- NATIVE VEGETATION ZONES TO BE RETAINED
- EXOTIC VEGETATION ZONES TO BE RETAINED
- HABITAT ZONES TO BE RETAINED
- VEGETATION ZONES CAN BE IMPACTED
- FFG POINT TO BE RETAINED

NOTES:

1. REFER TO DRAWING R012-G-0002 FOR DRAWING LIST AND LEGEND, REFER TO R012-G-0003 FOR LOCALITY PLAN AND GENERAL NOTES.
2. THE CONSTRUCTION CORRIDOR DRAWINGS SHALL BE READ IN CONJUNCTION WITH THE RECYCLED WATER MAIN ALIGNMENT PLAN AND LONGITUDINAL SECTION.
3. REFER TO DRAWING R012-C-0400 SERIES FOR WEST-EAST ALIGNMENT CONSTRUCTION CORRIDOR PLANS.
4. PROJECT ACTIVITY AREA IS THE CHMP-APPROVED CORRIDOR. WORKS OUTSIDE THIS CORRIDOR WILL REQUIRE A CHMP AMENDMENT.
5. CONSTRUCTION CORRIDOR IS THE ECOLOGICAL STUDY AREA AND IS CONFINED WITHIN THE PROJECT ACTIVITY AREA. THE CORRIDOR IS LOCALLY REDUCED TO RETAIN ECOLOGICAL VALUE; WHERE IMPACTS ARE UNAVOIDABLE, APPROPRIATE MITIGATION MEASURES APPLY. ANY WORKS OUTSIDE OF THE CORRIDOR WILL REQUIRE FURTHER ECOLOGICAL STUDY (IF NOT ALREADY COMPLETED) AND ADDITIONAL ENVIRONMENTAL APPROVALS/PERMITS.
6. EXCAVATION FOOTPRINT ADOPTS A 7.1m FOOTPRINT. CHMP PERMITS A 5.0m EXCAVATION CORRIDOR; THE CONTRACTOR MAY LOCATE THIS 5.0m CORRIDOR ANYWHERE WITH THE 7.1m FOOTPRINT TO OPTIMISE CONSTRUCTABILITY AND MINIMISE IMPACTS.
7. PERMANENT ACCESS TRACK IS DEVELOPED TO FUNCTIONAL DESIGN LEVEL; DETAILED DESIGN TO BE COMPLETED BY THE CONTRACTOR.
8. TRENCHLESS SHAFTS AND WORKING AREAS: SHAFT FOOTPRINT 9m x 5m PER SHAFT (PER CONSTRUCTABILITY INPUT). WORKING AREA 20m x 20m ADJACENT TO EACH SHAFT. ARRANGE WORKING AREAS TO AVOID IMPACTS TO EXISTING FEATURES (E.G., SEWER MAINTENANCE HOLES) WHERE PRACTICABLE.
9. WORKS NEAR AMAROO SEWER MAINTENANCE HOLE STRUCTURES SHALL MAINTAIN A 1m EXCLUSION ZONE TO AVOID ADJACENT EXCAVATION AND ACCIDENTAL DAMAGE.
10. PROJECT ACTIVITY AREA AND CORRIDORS WERE DEVELOPED WITH INPUT FROM EARLY CONTRACTOR ENGAGEMENT (ECE) WORKSHOPS.

HOLD

CROSSING ALIGNMENT TO CHANGE DUE TO CLASHING WITH UNDERGROUND EXISTING BRIDGE STRUCTURE. REFER TO CONCEPT DESIGN DRAWINGS FOR CRAIGIEBURN BYPASS CROSSING.



PLAN

SCALE: 1:1000

WARNING

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ISSUED FOR TENDER
NOT FOR CONSTRUCTION

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REV	DATE	DESCRIPTION	DRAWN	CHECKED	APPROVED	ISSUED
D	14.11.25	ISSUED FOR TENDER	RIPPLE	PG	SB	LS
C	07.10.25	ISSUED FOR APPROVAL	RIPPLE	PG	PA	LS
B	02.04.25	ISSUED FOR REVIEW	RIPPLE	PG	PA	LS
A	20.03.25	ISSUED FOR REVIEW	RIPPLE	PG	PA	LS

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PROJECT NAME: PWGW0684 - AURORA TO BALD HILL RECYCLED WATER MAIN - STAGE 1

RIPPLE

BECA STANTEC JOINT VENTURE

DRAWN	DRAWING CHECK
PG	SB
DESIGNED	DESIGN REVIEW
AA	PA
DESIGN MANAGER	APPROVED
AA	LS

LOCATION ID: -

LOCATION: -

SUBURB: CRAIGIEBURN

MELWAY REF: 387 D9

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Yarra Valley Water

ASSET: R012

AURORA TO BALD HILL RECYCLED WATER MAIN - STAGE 1

TITLE: CONSTRUCTION CORRIDOR PLAN SHEET 1

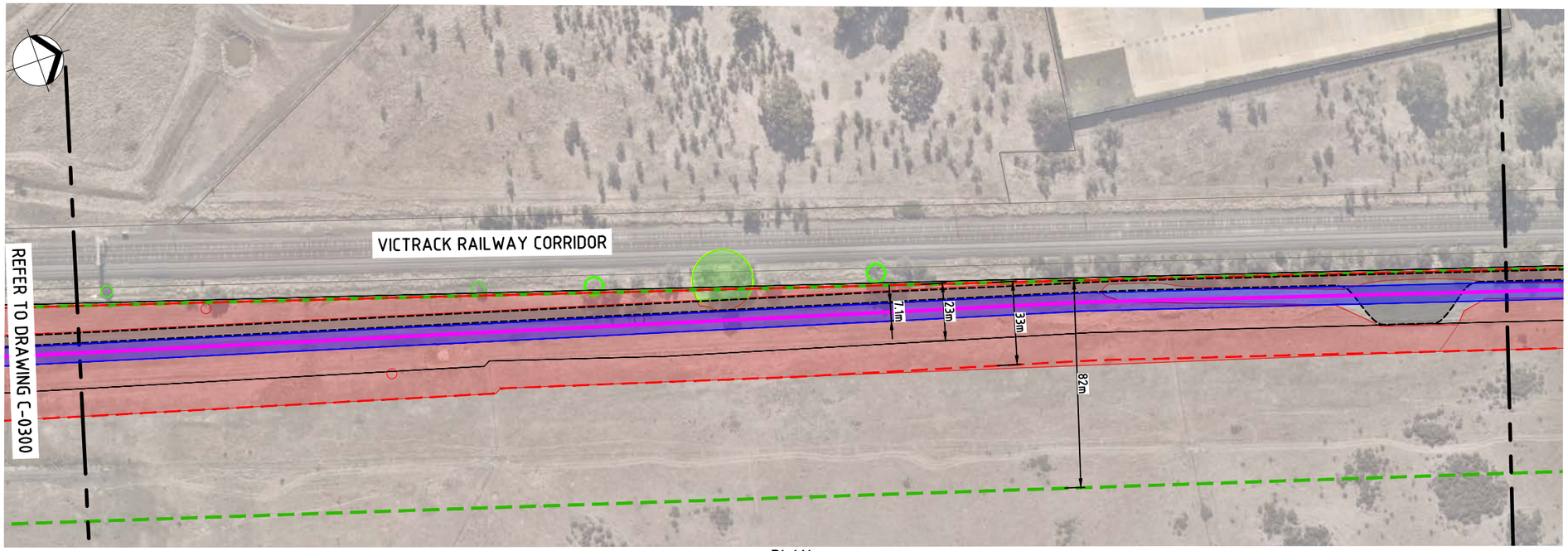
YVW PROJECT No.	DISCIPLINE	DRAWING No	REVISION
PWGW0686	C	R012-C-0300	D

SCALE: 1:1000

SURVEY DATUM: MGA2020

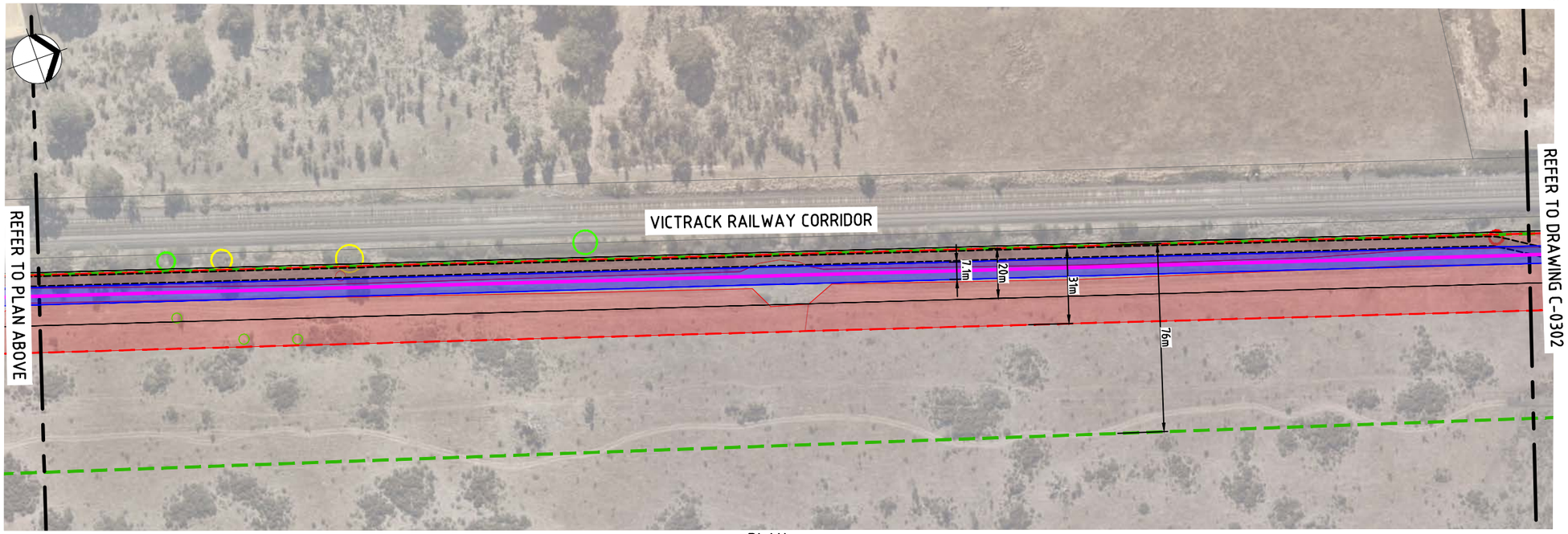
SUPERSEDED DWG No: -

XREFS: 6590950-X-MetaMap; 6590950-X-Heritage Sensitive Locations-EHP-10.04.2025; 6590950-X-EHP-Heritage; 6590950-X-Trenchless Shafts; 6590950-X-YVW Pipe Easement (Civil Boundary); 6590950-X-Activity Area; 6590950-X-Construction Boundary; 6590950-X-Cadastral Boundary; 6590910-X-Subdivision Masterplan Summerhill Rd (Rev H - 23.06.23); 6590950-X-Vegetation-TPZ and SRZ; 6590950-X-Access Track; 6590950-X-Construction Corridor



PLAN

SCALE: 1:1000



PLAN

SCALE: 1:1000

NOTES:

1. REFER TO DRAWING R012-G-0002 FOR DRAWING LIST AND LEGEND, REFER TO R012-G-0003 FOR LOCALITY PLAN AND GENERAL NOTES.
2. THE CONSTRUCTION CORRIDOR DRAWINGS SHALL BE READ IN CONJUNCTION WITH THE RECYCLED WATER MAIN ALIGNMENT PLAN AND LONGITUDINAL SECTION.
3. REFER TO DRAWING R012-C-0400 SERIES FOR WEST-EAST ALIGNMENT CONSTRUCTION CORRIDOR PLANS.
4. PROJECT ACTIVITY AREA IS THE CHMP-APPROVED CORRIDOR. WORKS OUTSIDE THIS CORRIDOR WILL REQUIRE A CHMP AMENDMENT.
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7. PERMANENT ACCESS TRACK IS DEVELOPED TO FUNCTIONAL DESIGN LEVEL; DETAILED DESIGN TO BE COMPLETED BY THE CONTRACTOR.
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9. WORKS NEAR AMAROO SEWER MAINTENANCE HOLE STRUCTURES SHALL MAINTAIN A 1m EXCLUSION ZONE TO AVOID ADJACENT EXCAVATION AND ACCIDENTAL DAMAGE.
10. PROJECT ACTIVITY AREA AND CORRIDORS WERE DEVELOPED WITH INPUT FROM EARLY CONTRACTOR ENGAGEMENT (ECE) WORKSHOPS.

LEGEND

- PROJECT ACTIVITY AREA
- CONSTRUCTION CORRIDOR
- EXCAVATION ZONE
- INDICATIVE YVW PIPE RESERVE
- YVW PIPE RESERVE
- PERMANENT ACCESS TRACK
- TEMPORARY ACCESS CORRIDOR AND WORKING AREA
- TREE PROTECTION ZONE (NRZ) (RETAIN)
- TREE PROTECTION ZONE (RETAIN WITH SUPERVISION)
- TREE PROTECTION ZONE (REMOVE)
- NATIVE VEGETATION ZONES TO BE RETAINED
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- HABITAT ZONES TO BE RETAINED
- VEGETATION ZONES CAN BE IMPACTED
- FFG POINT TO BE RETAINED

WARNING

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REV	DATE	DRAWN	DESIGNED	DESIGN MANAGER	CHECKED	APPROVED	DESCRIPTION
D	04.11.2025	RIPPLE	PG	AA	PA	LS	ISSUED FOR TENDER
C	07.08.25	RIPPLE	PG	AA	PA	LS	ISSUED FOR REVIEW
B	04.04.25	RIPPLE	PG	AA	PA	LS	ISSUED FOR REVIEW
A	02.04.25	RIPPLE	PG	AA	PA	LS	ISSUED FOR REVIEW

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PROJECT NAME: PWGW0684 - AURORA TO BALD HILL RECYCLED WATER MAIN - STAGE 1

RIPPLE

BECA STANTEC JOINT VENTURE

DRAWN: PG | DRAWING CHECK: SB | DESIGNED: AA | DESIGN REVIEW: PA | DESIGN MANAGER: AA | APPROVED: LS

LOCATION ID: - | LOCATION: - | SUBURB: CRAIGIEBURN | MELWAY REF: 387 D9

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ASSET: R012

AURORA TO BALD HILL RECYCLED WATER MAIN - STAGE 1

TITLE: CONSTRUCTION CORRIDOR PLAN SHEET 2

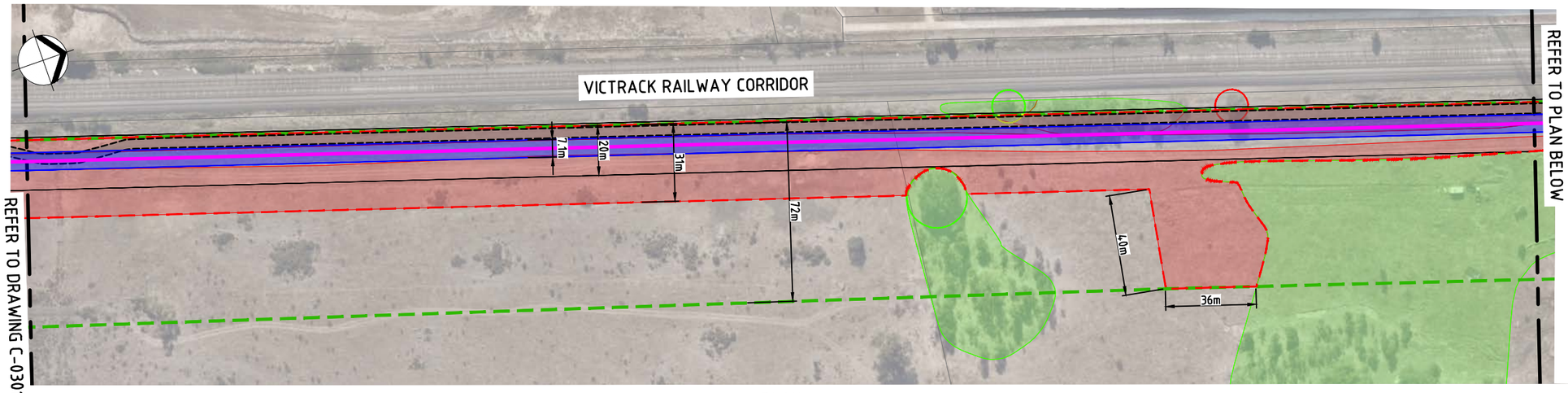
SCALE: 1:1000 | SURVEY DATUM: MGA2020 | SUPERSEDED DWG No: - | REVISION: C

YVW PROJECT No: PWGW0686 | DISCIPLINE: C | DRAWING No: R012-C-0301

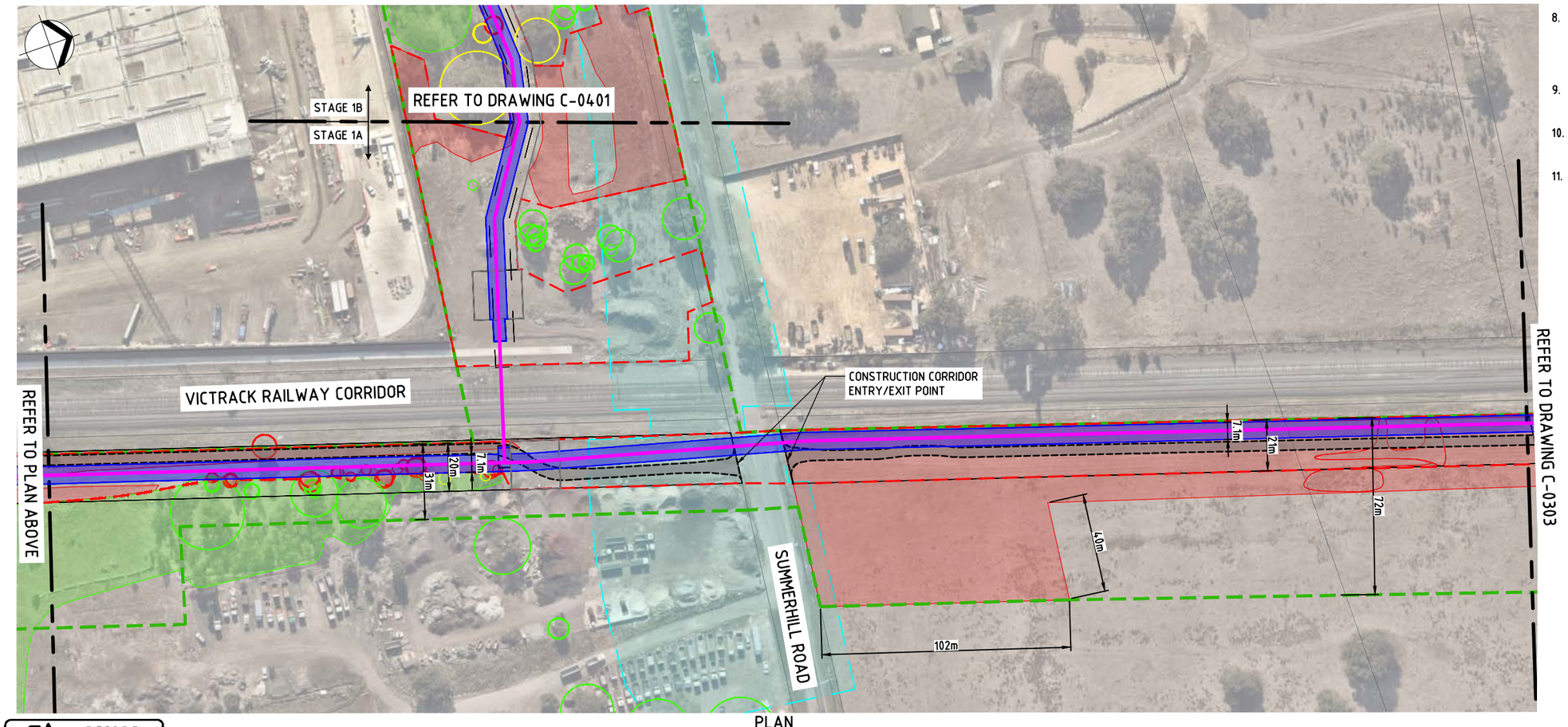
XREFS: 6590950-X-MassMap; 6590950-X-Heritage Sensitive Locations-EHP-10.04.2025; 6590950-X-EHP-Heritage; 6590950-X-Cadastral Boundary; 6590110-X-Subdivision Masterplan Summerhill Rd (Rev H - 23.09.25); 6590950-X-Vegetation-TPZandSRZ; 6590950-X-Access Track; 6590950-X-Construction Boundary; 6590950-X-Trenchless Shafts; 6590950-X-YVW Pipe Easement (Cad Boundary); 6590950-X-Activity Area

Plotted: 12/11/2025 1:37pm by Henry Bennett File: P:\6591\6590950\1-WIP\00-CAD\6590950-R012-C-0300.dwg Plot style: ----

YVW GENERAL DRAWING TEMPLATE 1.1 - 11.12.2020



PLAN
SCALE: 1:1000



PLAN
SCALE: 1:1000

NOTES:

1. REFER TO DRAWING R012-G-0002 FOR DRAWING LIST AND LEGEND, REFER TO R012-G-0003 FOR LOCALITY PLAN AND GENERAL NOTES.
2. THE CONSTRUCTION CORRIDOR DRAWINGS SHALL BE READ IN CONJUNCTION WITH THE RECYCLED WATER MAIN ALIGNMENT PLAN AND LONGITUDINAL SECTION.
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10. PROJECT ACTIVITY AREA AND CORRIDORS WERE DEVELOPED WITH INPUT FROM EARLY CONTRACTOR ENGAGEMENT (ECE) WORKSHOPS.
11. THE TEMPORARY ACCESS CORRIDOR FOR WEST EAST ALIGNMENT RUNS PARALLEL TO THE PIPELINE, WITH A 3.55m OFFSET FROM THE PIPELINE CENTRELINE TO THE EDGE OF THE ACCESS TRACK; LIKELY FUTURE CONVERSION TO A SHARED USER PATH BY COUNCIL.

LEGEND

- PROJECT ACTIVITY AREA
- CONSTRUCTION CORRIDOR
- EXCAVATION ZONE
- INDICATIVE YVW PIPE RESERVE
- YVW PIPE RESERVE
- PERMANENT ACCESS TRACK
- TEMPORARY ACCESS CORRIDOR AND WORKING AREA
- TREE PROTECTION ZONE (NRZ) (RETAIN)
- TREE PROTECTION ZONE (RETAIN WITH SUPERVISION)
- TREE PROTECTION ZONE (REMOVE)
- NATIVE VEGETATION ZONES TO BE RETAINED
- EXOTIC VEGETATION ZONES TO BE RETAINED
- HABITAT ZONES TO BE RETAINED
- VEGETATION ZONES CAN BE IMPACTED
- FFG POINT TO BE RETAINED
- FUTURE ROAD WIDENING (BY OTHERS)

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WARNING
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REV	DATE	DRAWN	CHECKED	APPROVED	DESCRIPTION
D	14.11.25	RIPPLE	PG	LS	ISSUED FOR TENDER
C	03.10.25	RIPPLE	PG	LS	ISSUED FOR APPROVAL
B	02.04.25	RIPPLE	PG	LS	ISSUED FOR REVIEW
A	02.04.25	RIPPLE	PG	PA	ISSUED FOR REVIEW

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PROJECT NAME: PWGW0684 - AURORA TO BALD HILL RECYCLED WATER MAIN - STAGE 1
RIPPLE
BECA STANTEC JOINT VENTURE
DRAWN: PG | DRAWING CHECK: SB
DESIGNED: AA | DESIGN REVIEW: PA
DESIGN MANAGER: AA | APPROVED: LS

LOCATION ID: -
LOCATION: -
SUBURB: CRAIGIEBURN | MELWAY REF: 387 D9

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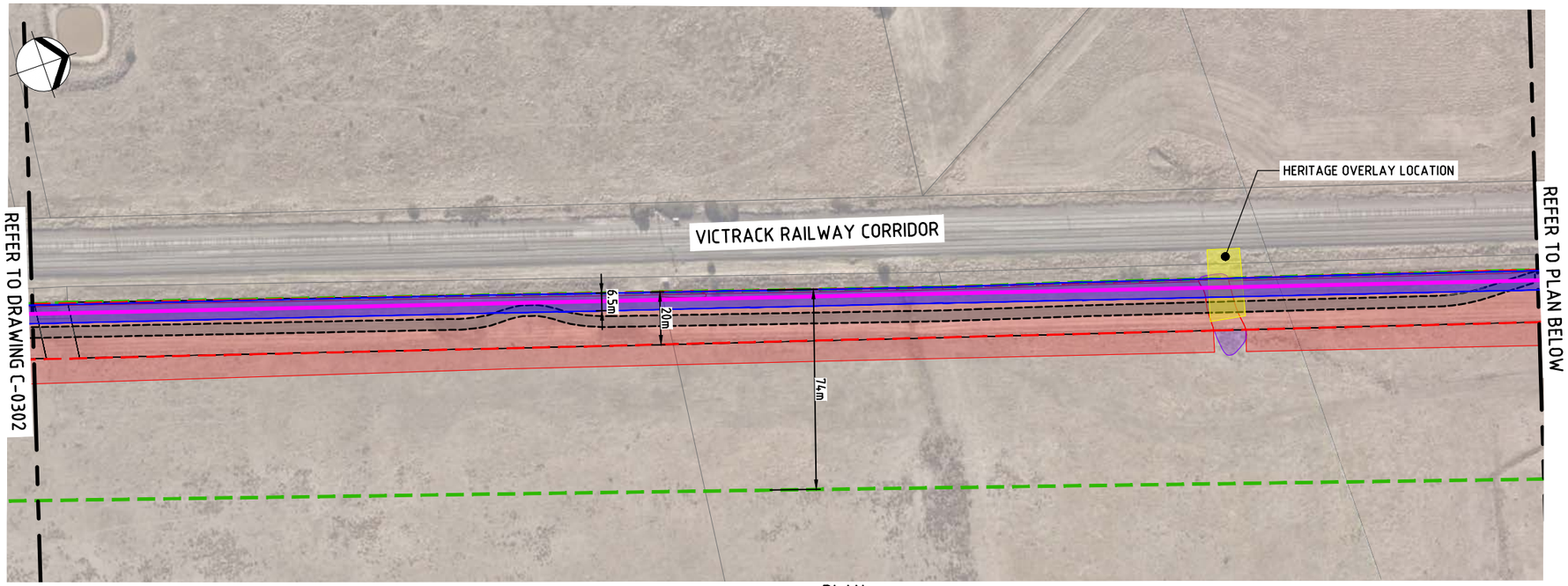
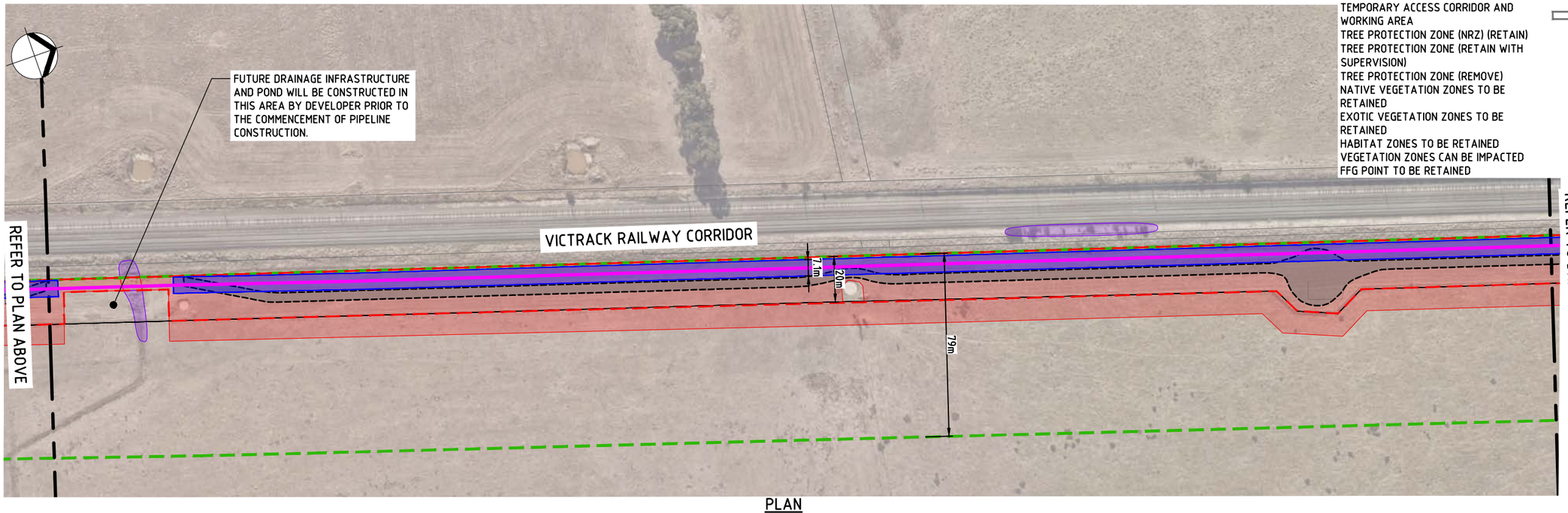
ASSET: R012
AURORA TO BALD HILL RECYCLED WATER MAIN - STAGE 1
TITLE: CONSTRUCTION CORRIDOR PLAN SHEET 3
SCALE: 1:1000
SURVEY DATUM: MGA2020
SUPERSEDED DWG No: -
YVW PROJECT No: PWGW0686
DISCIPLINE: C
DRAWING No: R012-C-0302
REVISION: D

XREFS: 6590950-X-MeetMap; 6590950-X-Heritage Sensitive Locations-EHP-10.04.2025; 6590950-X-EHP-Heritage; 6590950-X-Cadastral Boundary; 6590110-X-Subdivision Masterplan Summerhill Rd (Rev H - 23-06-23); 6590950-X-Vegetation-TPZandSRZ; 6590950-X-Access Track; 6590950-X-Access Track; 6590950-X-Construction Boundary; 6590950-X-Trenchless Shafts; 6590950-X-YVW Pipe Easement (Cad Boundary); 6590950-X-Activity Area
Plotted: 13/11/2025 2:03pm by Dinushka Fernando File: P:\6591\6590950\1-WIP\00-CAD\6590950-R012-C-0300.dwg Plot style: ----
YVW GENERAL DRAWING TEMPLATE 1.1 - 11.12.2020



PLAN

SCALE: 1:1000



PLAN

SCALE: 1:1000

NOTES:

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LEGEND

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REV	DATE	DESIGNED	DRAWN	CHECKED	APPROVED	DESCRIPTION
D	14.11.25	RIPPLE	PG	RA	LS	ISSUED FOR TENDER
C	30.10.25	RIPPLE	PG	PA	LS	ISSUED FOR REVIEW
B	09.10.25	RIPPLE	PG	PA	LS	ISSUED FOR REVIEW
A	02.04.25	RIPPLE	PG	PA	LS	ISSUED FOR REVIEW

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PROJECT NAME: PWGW0684 - AURORA TO BALD HILL RECYCLED WATER MAIN - STAGE 1

RIPPLE

BECA STANTEC JOINT VENTURE

DRAWN	DRAWING CHECK
PG	SB
DESIGNED	DESIGN REVIEW
AA	PA
DESIGN MANAGER	APPROVED
AA	LS

LOCATION ID: -

LOCATION: -

SUBURB: CRAIGIEBURN

MELWAY REF: 387 D9

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ASSET: R012

AURORA TO BALD HILL RECYCLED WATER MAIN - STAGE 1

TITLE: CONSTRUCTION CORRIDOR PLAN SHEET 4

YVW PROJECT No	DISCIPLINE	DRAWING No	REVISION
PWGW0686	C	R012-C-0303	D

SCALE: 1:1000

SURVEY DATUM: MGA2020

SUPERSEDED DWG No: -

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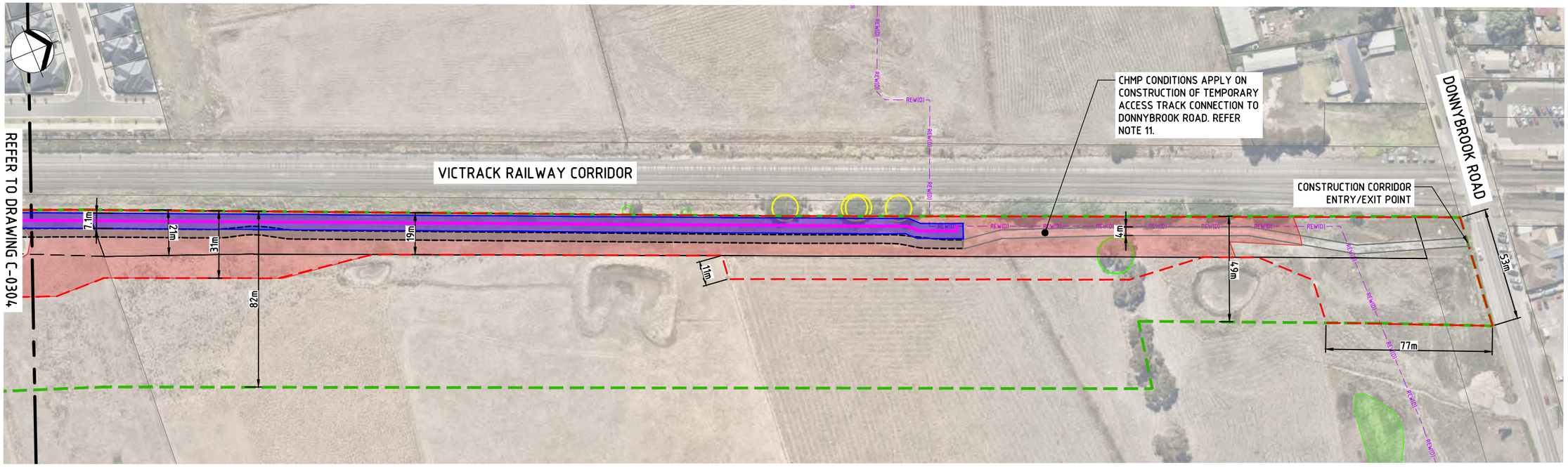

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11. TEMPORARY ACCESS CORRIDOR FROM ALIGNMENT CONNECTION POINT TO THE DONNYBROOK ROAD INTERSECTION. PERMANENT ACCESS IS NOT ALLOCATED DUE TO HERITAGE RESTRICTIONS AND THE NEED FOR FURTHER INVESTIGATIONS; PROVIDE A TEMPORARY ACCESS TRACK (GEOFABRIC AND CRUSHED ROCK) FOR STAGE 1A WORKS.

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- NATIVE VEGETATION ZONES TO BE RETAINED
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TITLE: CONSTRUCTION CORRIDOR PLAN SHEET 6

YVW PROJECT No: PWGW0686

DISCIPLINE: C

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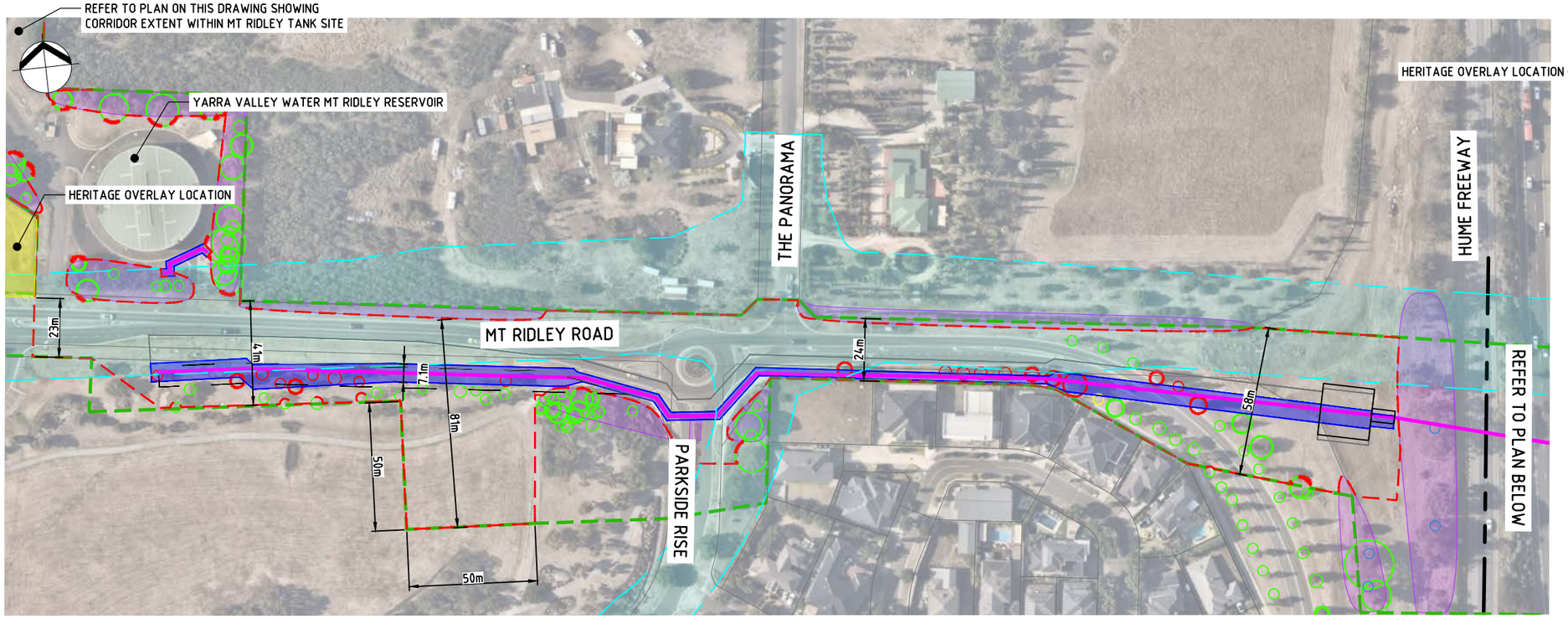

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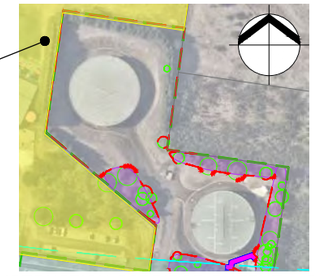

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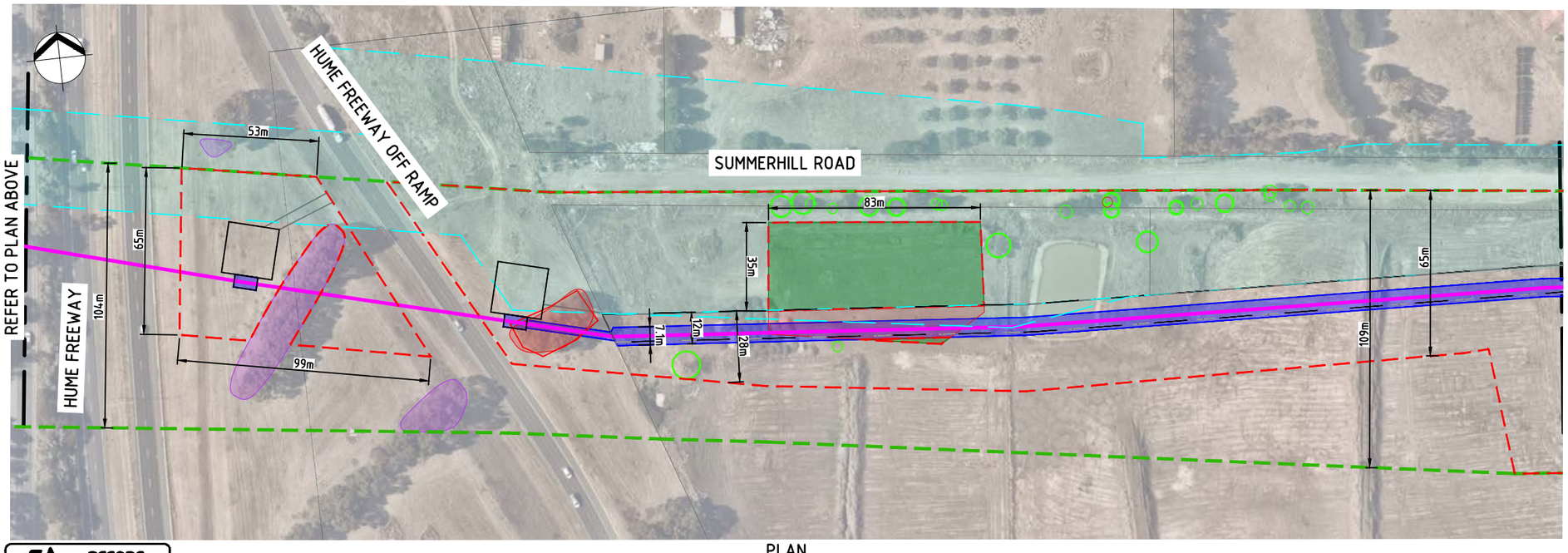

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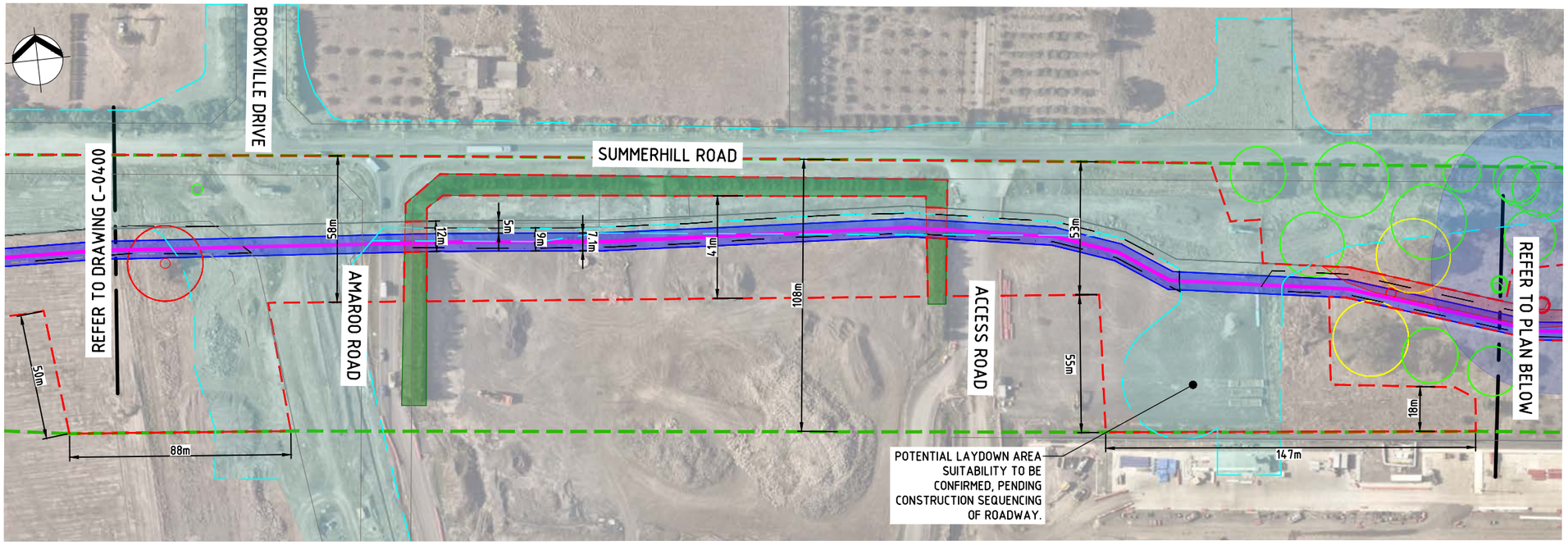

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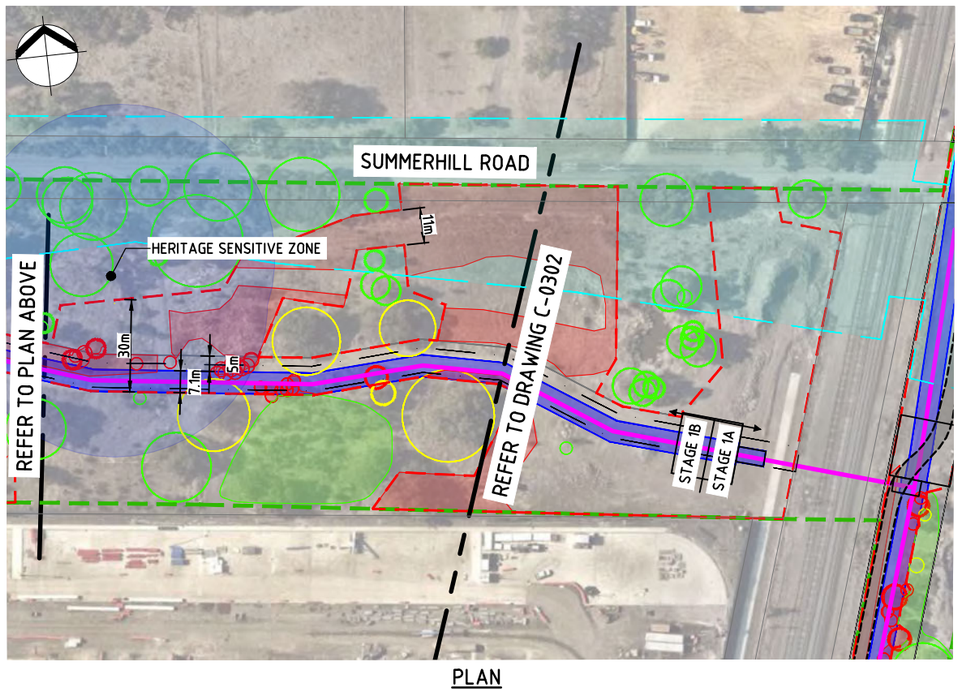

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Appendix B: Detailed Flora and Fauna Assessment

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Aurora to Bald Hill NDW Main – Stage 1 Detailed Design

Detailed Flora and Fauna Assessment

Prepared for Yarra Valley Water

Prepared by Ripple JV | November 2025

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Revision schedule

Rev No.	Date	Description	Prepared by	Checked by	Reviewed by	Approved by
01	13/06/2023	Draft Preliminary Assessment	Ruby Broadway	Kylie Annett	Ross Bartel	Jessica Maxfield
02	19/12/2024	Draft Detailed Assessment	Ruby Broadway	Kylie Annett	Carmen Loo Langford Sue	Jessica Maxfield
03	12/11/2025	Final Detailed Assessment	Ruby Broadway	Kylie Annett	Carmen Loo Langford Sue	Jessica Maxfield

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Glossary

The following interpretations apply to terms and acronyms used in this document:

Term	Definition
Exotic vegetation (e.g., exotic grass, exotic tree)	Any plant species which does not occur naturally in the locality in which it is growing. For the purposes of this report, this is considered any vegetation that is not native to Victoria or Australia.
Native vegetation	Any plant species which occurs naturally in the locality in which it is growing.
Remnant vegetation	Naturally occurring native vegetation which has not been planted or artificially established on the site.
EPBC	*Environment Protection and Biodiversity Conservation Act 1999* (Federal)
FFG	*Flora and Fauna Guarantee Act 1988* (State) (Amendment Act 2019)
VBA	Victorian Biodiversity Atlas
GGF	Growling Grass Frog
MFL	Matted Flax Lily
EVC	Ecological Vegetation Class
TPZ	Tree Protection Zone
DW	Drinking Water
NDW	Non-Drinking Water
FD	Functional Design (for proposed future YVW infrastructure)
MSA	Melbourne Strategic Assessment
NVRRP	Native Vegetation Retention and Removal Plan
NVPP	Native Vegetation Precinct Plan
PSP	Precinct Structure Plan (MSA)
PAO	Public Acquisition Overlay

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Executive Summary

Yarra Valley Water (YVW) is planning for growth in Melbourne's Northern Growth Corridor (North Growth Area, NGA) and has identified significant new infrastructure upgrades to meet future demands.

Ripple JV has been engaged by YVW to undertake a Detailed Flora and Fauna Assessment (this report), to identify areas of significant biodiversity value, provide recommendations to avoid impacts on biodiversity values, and to provide sufficient detail for the application of any biodiversity approval requirements under the relevant environmental legislation for Stage 1 of the Aurora to Bald Hill Main Non-Drinking Water (NDW) pipeline. Stage 1 comprises a 6.75 km NDW main alignment that runs parallel to the railway line and existing YVW recycled water (RW) main (R012) at Craigieburn Rd E car park, to the existing RW main (R023) offtake located south of Donnybrook Rd, including a section of alignment along Summerhill Rd that connects into the Mount Ridley Reservoir Outlet Main.

Ecological Values

Much of the pipeline construction corridor is contained within YVW freehold land, with vegetation consisting of predominantly managed exotic grasses, however scattered native ground cover species were consistently present along the alignment, as well as *Flora and Fauna Guarantee* (FFG) Act protected flora and ecological communities. Areas of patch-quality native vegetation were observed at numerous sections along the alignment including Plains Grassland and Plains Grassy Woodland Ecological Vegetation Classes (EVCs). Plains Grassland is generally considered synonymous with the FFG listed threatened ecological community 'Western (Basalt) Plains Grasslands Community' as well as likely meeting the criteria to be considered the *Environment Protection and Biodiversity Conservation* (EPBC) Act listed threatened community 'Natural Temperate Grasslands of the Victorian Volcanic Plain'. Plains Grassy Woodland is generally considered synonymous with the FFG listed threatened ecological community 'Western Basalt Plains (River Red Gum) Grassy Woodland' as well as likely meeting the criteria to be considered the EPBC listed threatened community 'Grassy Eucalypt Woodland of the Victorian Volcanic Plain'. EPBC Act listed species and ecological communities are accounted for under the Melbourne Strategic Assessment (MSA) (within the boundary of the strategic assessment area) and do not require additional approval, however, FFG Act protected species and communities require a permit for impacts/removal under the FFG Act as they are located within public land.

Although no threatened fauna species were observed during the site assessments the following was noted:

- The Merri Creek is known habitat for the Growling Grass Frog (*Litoria raniformis*).
- Deep soil cracks were present in grassed areas which may provide habitat for the Striped Legless Lizard (*Delma impar*), as well as other threatened fauna species including the Victorian Grassland Earless Dragon (*Tympanocryptis pinguicolla)*.
- Dense, tussock forming grasses may provide habitat for the Golden Sun Moth (*Synemon plana*); and
- Multiple significant hollow bearing trees present are likely to provide habitat for other fauna species (some may be threatened).

Legislative Requirements

The following conclusions and recommendations relating to flora and fauna approvals and controls have been outlined to ensure the project adheres to relevant environmental legislation:

- **CaLP weeds were noted** across the construction corridor. Management will be required during construction and measures to minimise weed spread should be outlined in a project Construction Environmental Management Plan (CEMP) to comply with legal obligations under the *Catchment and Land Protection Act 1994*.
- **An Environmental Effects Statement is not required** for the project under the *Environmental Effects Act 1978*, as none of the biodiversity referral criteria under the EE Act are likely to be triggered by the proposed works. As such, the proposed works are unlikely to have a significant impact on a regional or state context (with respect to biodiversity).

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- **An EPBC referral is not required** under the *Environment Protection and Biodiversity Conservation Act 1999* for the project as there are unlikely to be any significant impacts on any matters of national environmental significance.
- **An FFG Permit to Remove Protected Flora is required** for the removal of four Fragrant Saltbush (*Rhagodia parabolica*) individuals, one Studley Park Gum (*Eucalyptus* x*studleyensis*), 0.318 ha of 'Westen (Basalt) Plains Grasslands Community' and 0.126 ha of 'Western Basalt Plains (River Red Gum) Grassy Woodland Community' under the *Flora and Fauna Guarantee Act 1988*.

- **A planning permit is required for vegetation removal** under the *Planning and Environment Act 1987* including:
    - within Hume City Council for vegetation impacts within ESO2, ESO10, PAO2 and Clause 52.17
    - within Whittlesea City Council for vegetation impacts within ESO3, ESO4, ESO6 and Clause 52.17.

  Under Clause 52.17 of the Hume Planning Scheme, the removal of 0.444 ha of native vegetation will result in a requirement to offset 0.250 General Habitat Units with a minimum strategic biodiversity value score of 0.473 within the Melbourne Water CMA or Hume City LGA areas. Scattered native vegetation triggering a planning permit under Clause 52.17 of the Whittlesea Planning Scheme does not require offsetting (in line with the 'Guidelines for the removal destruction or lopping of native vegetation').

- Under the ***Wildlife Act 1975***, a qualified wildlife specialist (ecologist/zoologist) who holds management authorisation under the Act is to be engaged to undertake a pre-construction fauna/habitat check, and to be onsite during any vegetation/habitat removal works, to supervise works and relocate any displaced fauna.

- **Works in a Conservation Area (WICA) approval is required** for works within Conservation Area 34 (CA34) that intersect with the alignment in line with the EPBC Act and the *Melbourne Strategic Assessment (Environment Mitigation Levy) Act 2020*. Additionally, a **'Salvage Enquiry Form'** is to be completed and submitted to DEECA as the construction corridor falls within MSA areas labelled as 'Potential Salvage Operations' for Matted Flax-lily.

Next Steps

The following next steps relating to flora and fauna are advised to ensure impact to ecological values are managed and minimised, and that the project adheres to relevant environmental legislation:

- **Consultation with Hume and Whittlesea Council** to confirm the interpretation of the planning scheme, any permit requirements, any applicable exemptions, and to discuss any reinstatement requirements.

- **Preparation and submission of applicable biodiversity approvals** including:

    - **Planning Permit**
        - for vegetation removal from Hume City Council under ESO2, ESO10, PAO2 and Clause 52.17.
        - for vegetation removal from City of Whittlesea Council under ESO3, ESO4, ESO6 and Clause 52.17.

    - **FFG Act permit** for four Fragrant Saltbush (*Rhagodia parabolica*) individuals, one Studley Park Gum (*Eucalyptus xstudleyensis*), 0.318 ha of 'Westen (Basalt) Plains Grasslands Community' and 0.126 ha of 'Western Basalt Plains (River Red Gum) Grassy Woodland Community' from DEECA.

    - **WICA Approval** for works within Conservation Area 34 and **'Salvage Enquiry Form'** for Matted Flax-lily from DEECA.

- **Preparation of a Construction Environmental Management Plan (CEMP)** to ensure environmental impacts are minimised and the control of noxious weeds are addressed during the construction phase. The CEMP must be approved by DEECA for works in Conservation Area 34 as part of the WICA application prior to the commencement of works.

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1 Introduction

1.1 Background and Project Description

Yarra Valley Water (YVW) is planning for growth in Melbourne's Northern Growth Corridor (North Growth Area, NGA) and has identified significant new infrastructure upgrades to meet future demands. The NGA extends from Craigieburn in the south to Wallan in the north. The YVW Northern Growth Area Drinking & Non-Drinking Water Transfer Report Sept 2021 identifies, at a high level, transfer pipelines and pump stations required to supply the Northern Growth Corridor with drinking water (DW) and non-drinking water (NDW) over the next 20 years.

Reliability of supply is considered a key component of the overall strategy. It has been identified that a NDW transfer between the Aurora Recycled Water Treatment Plant (RWTP) and the future Mt Fraser Reservoir, as well as transfer from the existing Wallan RWTP to the future Mt Fraser Reservoir, would provide two independent sources of supply to each NDW reservoir within the NGA.

A route feasibility assessment has been completed for the transfer pipelines and pump station (PS) locations required in the NGA DW & NDW Transfer Strategy including:

- Aurora RWTP (RTP074) to Mt Ridley Reservoir (RRS010) NDW transfer mains.
- Mt Ridley Reservoir (RRS010) to Bald Hill Reservoir (RRS011) NDW transfer mains via Wollert RWTP.
- Bald Hill Reservoir (RRS011) to Mt Fraser Reservoir (RRS007) NDW transfer mains and PS.
- Wallan RWTP (RTP075) to Mt Fraser Reservoir (RRS007) NDW transfer main.
- Bald Hill Reservoir (WRS615) to Mt Fraser Reservoir (WRS607) DW transfer mains and PS.

YVW requires all DW and NDW transfer assets to be located within land controlled by YVW (freehold land or water supply easement) where possible, and not road reserves/pavements unless a road crossing is required. To ensure that all future pipelines and assets in the transfer system remain within YVW control, YVW prefers freehold title over any land that is used solely for those assets.

To give effect to this outcome, YVW is seeking to introduce a Public Acquisition Overlay (PAO) over the identified sections of pipeline alignment not currently under a YVW freehold title as concluded in the Northern Growth Area Water Transfer Assets Feasibility Assessment main report (GHD, 2022).

In terms of priority, YVW is seeking to prioritise land acquisition for the design and delivery of the NDW pipelines between the Aurora Recycled Water Treatment Plant (RWTP) and Donnybrook Road Transfer Main comprising:

- Aurora RWTP to Mt Ridley Reservoir transfer main (NDW only)
- Mt Ridley Reservoir to Wollert RWTP (NDW only)
- Wollert RWTP Offtake to Donnybrook Road Transfer Main (NDW only)

As a part of this process, Ripple completed a Preliminary Flora and Fauna Assessment in June 2023, to help facilitate and guide the PAO land acquisition in order to expedite securing the land and further facilitate the Functional Design (FD) of the NDW pipeline. The preliminary assessment identified the need for a Detailed Flora and Fauna Assessment (this report) of the FD alignment, to provide biodiversity information to the design engineers to help refine the construction footprint at the Detailed Design (DD) stage of the project. The report has subsequently been updated during the DD stage to reflect the final proposed vegetation impacts after avoidance and minimisation principles were applied.

The aim of this assessment is to identify areas of significant biodiversity value, provide recommendations to avoid impacts on biodiversity values, and to provide sufficient detail for the application of any biodiversity approval requirements under the relevant environmental legislation for sensitive design of the YVW infrastructure.

The DD alignment and construction corridor are shown in **Figure 1-1** below. Detailed environmental mapping is attached in **Appendix A**.

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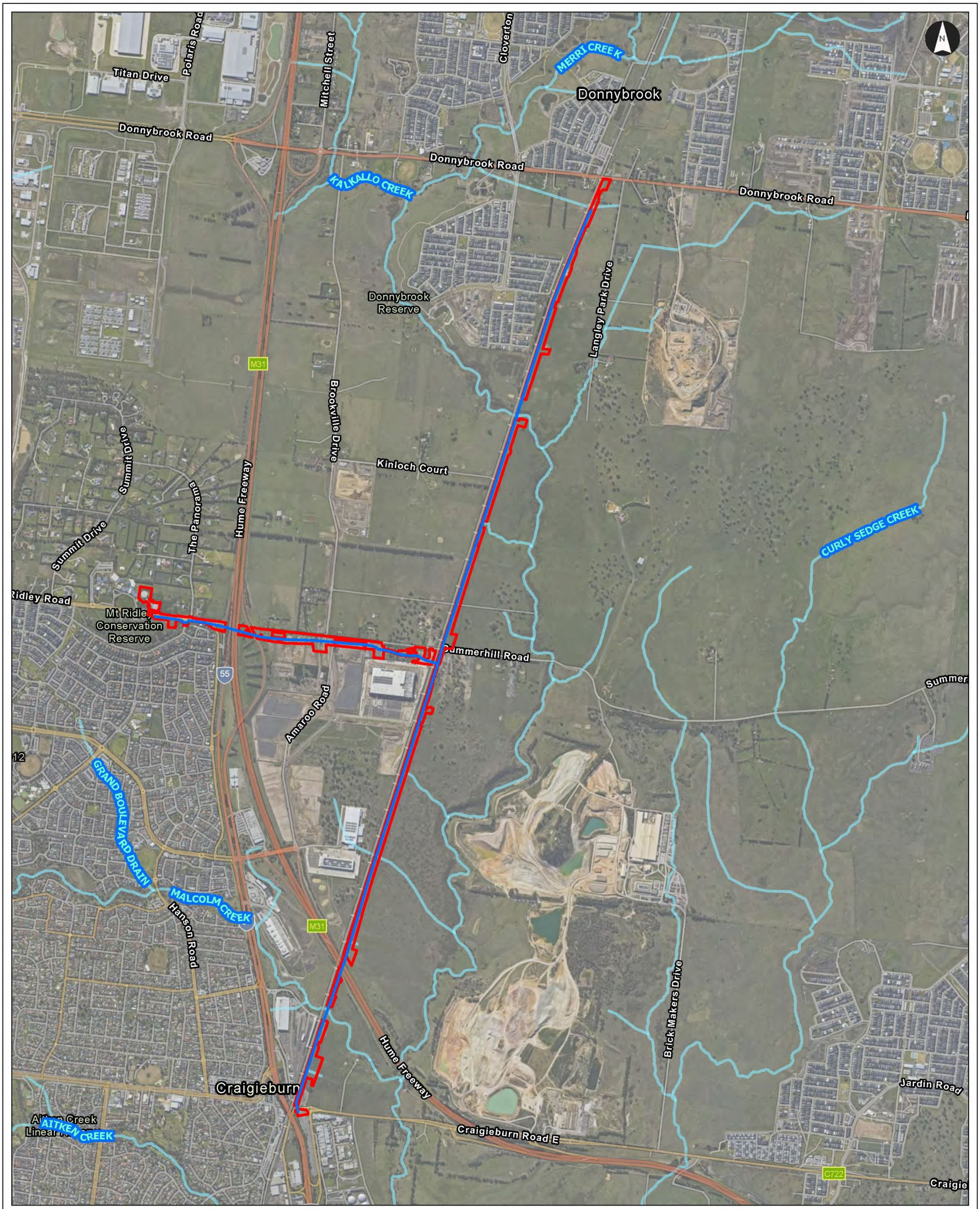

Overview

Aurora to Bald Hill Tanks NDW Main – Detailed Design
Aurora, Victoria

Client: Yarra Valley Water
Project Code: 300250055
Drawn By: TG, Checked By: RB
Figure: 1 | Rev: 01
Date: 2025-10-31

Legend

- Pipeline Alignment
- Construction Corridor

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. Metromap (August 2025)

0 200 400 600 800 1,000
Metres
Scale at A3: 1:24,000



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Figure 1-1: Aurora to Bald Hill Main NDW construction corridor and pipeline alignment. Inset show's location in Craigieburn, Victoria.

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1.2 Objectives

This report outlines the results of the detailed flora and fauna assessment of the Detailed Design alignment and construction corridor as outlined within **Figure 1-1** (hereafter referred to as "The Alignment").

The objectives of this detailed assessment include:

1) To undertake a desktop review of information supplied by YVW along with publicly available biodiversity and biodiversity planning databases to identify potential ecological site constraints and legislative requirements.

2) To undertake a detailed site assessment (in spring) to identify impacts to flora (in particular FFG protected flora), fauna, and ecological communities, along with potential fauna habitat; and

3) To prepare a report (this report) detailing the desktop review, site inspection results and to quantify final vegetation impacts for environmental approvals.

1.3 Legislative Context

Australian (Federal) and Victorian (State) government legislation relevant to the protection of biodiversity that are covered in this assessment include (but are not limited to):

Federal legislation:

- *Environment Protection and Biodiversity Conservation Act 1999*

State legislation:

- *Catchment and Land Protection Act 1994*
- *Environmental Effects Act 1978*
- *Flora and Fauna Guarantee Act 1988 (Amendment Act 2019)*
- *Melbourne Strategic Assessment (Environment Mitigation Levy) Act 2020*
- *Planning and Environment Act 1987*
- *Wildlife Act 1975*

The 'Guidelines for the Removal, Destruction or Lopping of Native Vegetation' is also applicable.

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2 Methodology

2.1 Desktop Review

A review of publicly available information was carried out to identify and characterise the existing biodiversity and environmental features within the project area including aquatic and terrestrial habitats and biotic assemblages, threatened species, populations and communities, migratory species, protected species, matters of national environmental significance (MNES), critical habitats and declared areas of outstanding biodiversity value. Information was also reviewed to guide the assessment of potential impacts and legislative requirements. The review focused on database searches, State and Commonwealth legislation and policies and guidelines. Sources used include:

- Aerial imagery (NearMap)
- Department of Climate Change, Energy, the Environment and Water (DCCEEW) Protected Matters Search Tool (PMST)
- Department of Energy, Environment and Climate Action (DEECA) MSA MapShare/Levy Estimator
- DEECA Native Vegetation Regulations Map (NVR Map)
- DEECA NatureKit for Victorian Bioregions and Ecological Vegetation Classes (EVC) as of 2005
- DEECA Victorian Biodiversity Atlas (VBA)
- Department of Transport and Planning (DTP) VicPlan
- Hume Planning Scheme
- Whittlesea Planning Scheme

2.2 Site Inspections

Site inspections were undertaken by two Ripple ecologists on the 22.03.2023, 28.03.2023, 28.04.2023, 18.05.2023 and 22.05.2023 to complete a preliminary assessment of the flora, fauna, and ecological values within the originally proposed FD area, which extended from Potter Street, Craigieburn to the Wallan Recycled Water Treatment Plant (RWTP). **(Note: part of the alignment assessed during the preliminary assessment, Alignment 6 – between Wallan RWTP and Minton St, has been removed from the scope of works)**. A further site inspection was undertaken between the 01.11.2023 – 03.11.2023, to complete a detailed assessment of the flora and fauna habitat within the areas being taken to Detailed Design for Stage 1 of the Aurora and Bald Hill Main NDW pipeline (design dated 11.07.2023). Since the original detailed assessment was undertaken, updates to the associated construction corridor have been made. As such, an updated design was provided (dated 15.11.2024) and a further site inspection undertaken on the 20.11.2024. Minor changes have since been made to the construction corridor to reduce impacts to surrounding vegetation and cultural heritage sites; however, a further ecological site visit was not necessary as all data for the adjusted areas had been previously captured. The detailed site inspection was primarily undertaken on foot, and focused on assessing any flora, fauna or ecological communities present within the construction corridor. Descriptions of the areas assessed, along with recommendations and photos are outlined in **Appendix B.3**.

2.2.1 Native Flora

The following definitions from the *Guidelines for the removal, destruction or lopping of native vegetation* (DELWP, 2017) ('The Guidelines') were used for the site inspection.

Native Vegetation

Native vegetation is defined in the Victoria Planning Provisions as 'plants that are indigenous to Victoria, including trees, shrubs, herbs, and grasses. (Victoria Planning Provision Definitions, Clause 72). Under the 'The Guidelines' (DELWP, 2017) native vegetation is defined by two categories; patches and scattered trees, as outlined below.

Patch

A *patch* of native vegetation is:

- An area of vegetation where at least 25% 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.

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Scattered tree

A *scattered tree* is a native canopy tree that does not form part of a patch. A native canopy tree is a mature tree that is greater than three metres in height and is normally found in the upper layer of a vegetation type i.e., Ecological Vegetation Class (EVC).
Trees within the surrounds of the project area were identified as required.

AS 4970:2025 – Protection of trees on development sites

Diameter at Standard Height (DSH) measurements were taken of trees within and in proximity to the project corridor in order to calculate the Notional Root Zone (NRZ) required to safely retain trees as per the 'AS 4970:2025 – Protection of trees on development sites' (Australian Standards, 2025).

Tree impact/retention status' have been assigned to each tree as outlined in the Environmental Mapping attached in **Appendix A** and in the tree table attached in **Appendix B.3** as defined in the standard including the following categories:

- **Minor NRZ encroachment -** Encroachment ≤10% of NRZ. It is unlikely that there will be a significant impact on tree health and protection should be implemented during site works.
- **Moderate NRZ encroachment -** NRZ encroachment between 11-20%. The tree impacts must be reviewed by a project arborist and any other necessary investigation required to demonstrate the tree will remain viable is to be undertaken. This may be through the implementation of suitable design measures and construction controls to mitigate impacts including development of Tree Protection Specifications.
- **Major NRZ encroachment -** NRZ encroachment >20%. The project arborist must demonstrate that the tree(s) remain viable. This may require root investigation by non-destructive methods, soil analysis, review of historical records and consideration of relevant factors such as tree health, vigour, stability and species sensitivity. Measures to control and mitigate impacts during development should be detailed in Tree Protection Specifications.

Detailed tree data was also captured by the Ripple Consulting Arborist for trees determined as likely to be impacted (refer to "Aurora to Bald Hill NDW Main - Stage 1 Detailed Design - Arboricultural Impact Assessment" (Ripple, 2025)). The results of the AIA have been incorporated into this assessment.

2.2.2 Native Fauna

Opportunistic searches and observations were carried out during the site assessment for native and introduced fauna and potential habitat. Any fauna species observed during the site assessment by sight, sign (scats, tracks, scratchings, nests) or based on calling activity, were recorded. This includes birds that may have been flying over or near the project area.

2.3 Limitations

The purpose of the assessment was to highlight likely flora and fauna concerns (which may trigger approvals), assess the quality of native vegetation within the proposed construction corridor and quantify potential native vegetation loss. The scope of the assessment is limited to a detailed assessment of the proposed construction corridor as per the DD design drawings dated 28.10.2025 ("The Alignment"). As indicated in **Section 2.2**, a detailed assessment of the flora and fauna habitat within the FD alignment for the Aurora and Bald Hill Main NDW pipeline (design dated 11.07.2023) was undertaken between the 01.11.2023 – 03.11.2023. Further detailed flora and fauna habitat assessment work was undertaken on the 20.11.2024 due to an updated design being provided (dated 15.11.2024). Subsequent minor changes have been made to the construction corridor during the Detailed Design stage of the project to reduce impacts to surrounding vegetation and cultural heritage sites; however, further ecological site visits were not deemed necessary as all data for the adjusted areas had been captured during previous field assessment work undertaken for the project. An assessment of the wider area was outside of the scope of this assessment.

Consultation with regulatory authorities (aside from early consultation with DEECA regarding WICA approval requirements), landowners and wider stakeholders was also not undertaken.

This assessment solely focuses on biodiversity and relevant associated legislation, with cultural heritage and wider environmental issues such as contaminated land being outside the scope of this assessment. However, these are addressed in separate deliverables for the project. More detailed planning permit

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requirements are covered in the 'Aurora to Bald Hill NDW Main – Stage 1 Detailed Design - Planning and Approvals Assessment' (Ripple JV, 2025).

Although the site assessment was undertaken during the optimal period (late spring-early summer) for flora surveys when many flora species are flowering, and when many native fauna species are most active, seasonal and daily variations may have limited the ability to record all species present.

Mapping provided is based off GPS data captured on handheld devices using ArcGIS Field Maps which has a margin of error of 1-3m. This level of accuracy has been determined as adequate for the purposes of this assessment (i.e. providing information on biodiversity values present), however is not as accurate as survey data and should not be used for detailed surveying purposes.

The legislative implications as outlined within this assessment are applicable to impacts associated with the proposed alignment, construction corridor and methodology as outlined in **Section 1.1** of this assessment only. A review of the legislative implications is to be undertaken if there are any changes to the proposed design and construction methodology.

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3 Results

3.1 Desktop Review

Publicly available databases and past reports were reviewed, and results are contained below.

3.1.1 Previous Assessments

Feasibility Report (GHD, 2022)

YVW engaged GHD (GHD, 2022) to undertake a feasibility assessment of approximately 43 km of pipeline alignment and pump station locations, in order to meet system augmentations and water transfer infrastructure requirements identified in the Yarra Valley Water NGA Transfer Strategy. As part of this assessment, a desktop Ecology Assessment (GHD, 2022) was undertaken. A review of this report has been undertaken to better understand any environmental sensitivities that may have been considered during the multi-criteria analyses stage of the assessment.

Ecological values and constraints flagged within the survey area (which includes the alignment as assessed in this report) included:

- Assessments are required in non-MSA areas under the *Environment Protection and Biodiversity Act 1999 (EPBC Act)*. All other areas have EPBC Act requirements accounted for under the MSA.
- Utility infrastructure is not considered a 'levy event' under the *Melbourne Strategic Assessment (Environment Mitigation Levy) Act 2020* (unless it occurs on Crown land) and therefore the construction of utilities infrastructure is not liable to environmental mitigation levies for areas within the MSA.
- Part of the alignment passes through Conservation Area 34 and will require a Works in Conservation Area (WICA) approval if works are to occur in this area. Trenchless construction is recommended to avoid impacts on the Merri Creek.
- A 'salvage enquiry form' is required to be submitted to DEECA for any areas along the alignment that pass through MSA areas identified for Salvage and Translocation.
- 5 EPBC listed Threatened Ecological Communities may be present along the alignment.
- A planning permit under Clause 52.17 will be required for any native vegetation that requires removal in areas outside of the MSA.
- Threatened fauna may be present along the alignment. Within the MSA area, no further consideration to EPBC listed species is required, however FFG listed fauna impacts needs to be considered and mitigated. Outside the MSA area, all Commonwealth and State legislation needs to be considered for fauna.
- Environmental Effects (EE) Act referral may be required depending on the extent of impacts relating to works and the exceedance of thresholds relating to flora and fauna under the Act.

3.1.2 Victorian Bioregion and Ecological Vegetation Classes

DEECA's NatureKit mapping (DEECA, 2025e) has indicated that the entire assessment area is located in the Victorian Volcanic Plain bioregion and that multiple areas of Ecological Vegetation Class (EVC)-quality vegetation may exist along the proposed construction corridor. These are shown in **Figure 3-1** and **Figure 3-2** below.

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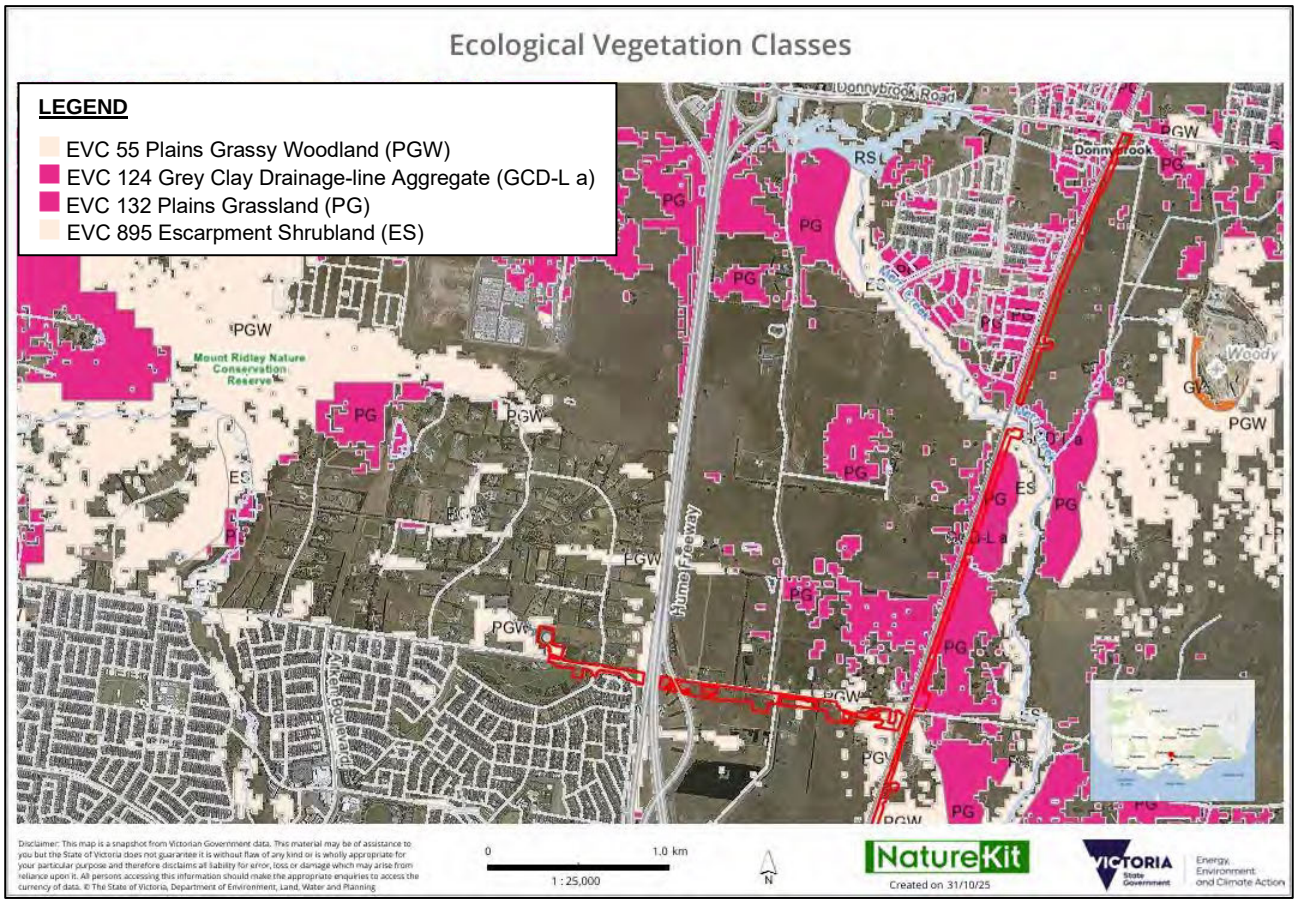

Figure 3-1: Mapped EVCs Part 1 (DEECA, 2025e)

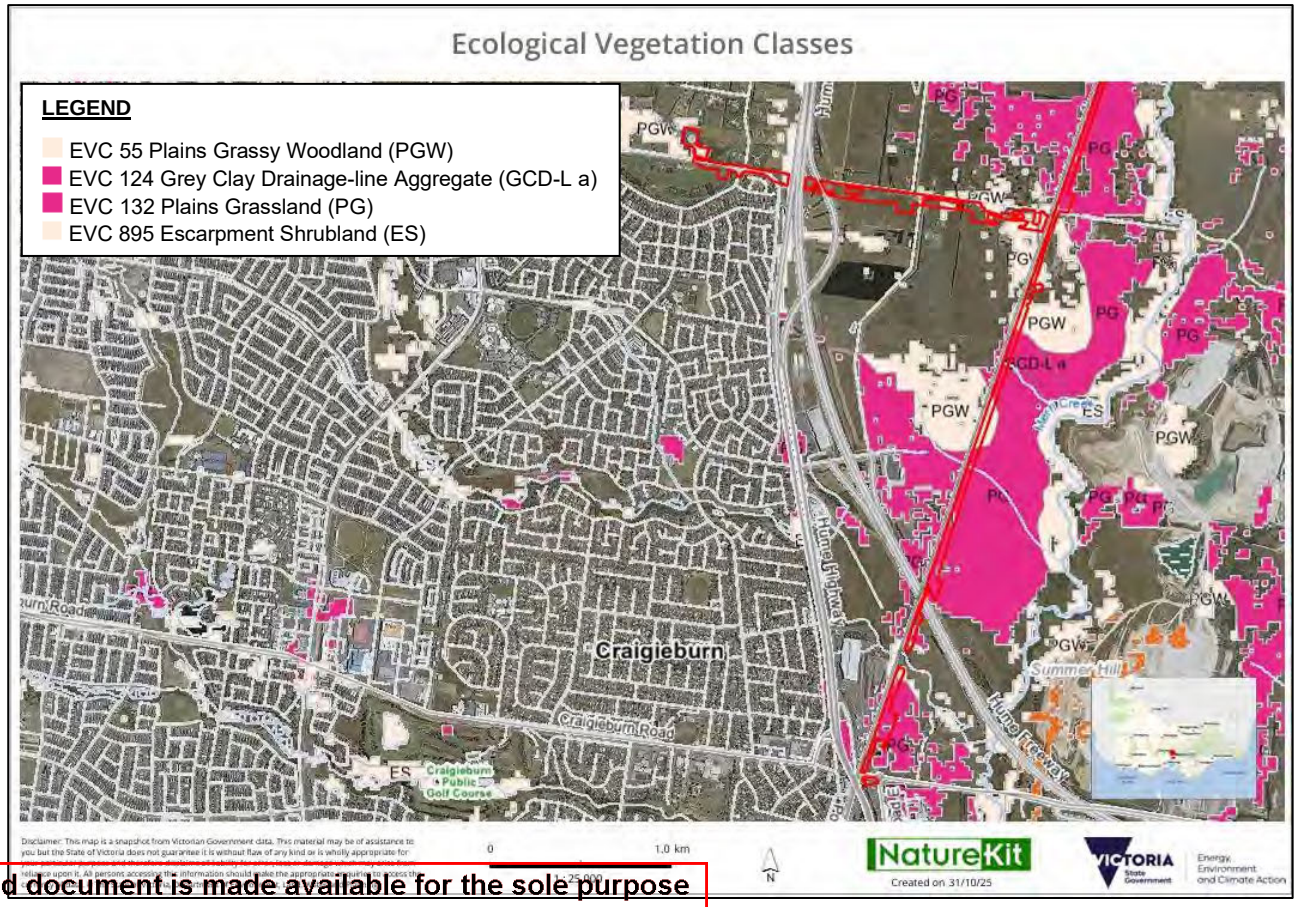

Figure 3-2: Mapped EVCs Part 2 (DEECA, 2025e)

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The mapped EVCs that intersect with the proposed alignment, their current Bioregional Conservation Status (BCS) and a brief description of each EVC (DSE, 2004) are outlined below:

EVC55: Plains Grassy Woodland (PGW) – Endangered
"An open, eucalypt woodland to 15 m tall. Occupies poorly drained, fertile soils on flat or gently undulating plains at low elevations. The understorey consists of a few sparse shrubs over a species-rich grassy and herbaceous ground layer. This variant occupies areas receiving approximately 500 – 700 mm annual rainfall." (DSE, 2004).

EVC124 Grey Clay Drainage-line Aggregate (GCD-L a) – Endangered
"Collective label for the various zones of vegetation associated with the inundation-prone habitat of slightly mineralised drainage lines in more elevated parts of the basalt plains. The EVC is rare and localised, identified from very few locations, and includes habitat of the extremely localised *Carex tasmanica*. The vegetation of associated grassy terraces, subject to occasional inundation, has affinities with Creekline Tussock Grassland." (DSE, 2004).

EVC132: Plains Grassland (PG) – Endangered
"Treeless vegetation mostly less than 1 m tall dominated by largely graminoid and herb life forms." (DSE, 2004).

EVC895: Escarpment Shrubland (ES) – Endangered
"Occurs on rocky escarpments in steep valleys or gorges, associated with limestone or basalt. Sites have moderate to high fertility, are well-drained but subject to regular summer drought due to shallow soils. Eucalypt woodland to 15 m tall or non-eucalypt shrubland to 8 m tall, with occasional eucalypts; lichen-covered rock outcrops are common." (DSE, 2004).

3.1.3 Threatened Ecological Communities

Threatened Ecological Communities synonymous with EVCs mapped along the construction corridor include:

Westen (Basalt) Plains Grasslands Community - FFG listed community (synonymous with EVC132 Plains Grassland).
Described as "open grassland community found mainly on undisturbed, poorly drained heavy clay soils on the basalt plains of western Victoria. These soils are usually waterlogged in winter and very hard, dry and cracking in summer. The vegetation is characteristically dominated by perennial native grasses, with very few eucalypts and shrubs." (DEECA, 2025b).

Western Basalt Plains (River Red Gum) Grassy Woodland Community - FFG listed community (synonymous with EVC 55 Plains Grassy Woodland).
Described as "a clearly recognizable structure made up of an open canopy of River Red Gum (*Eucalyptus camaldulensis*), a middle layer chiefly of scattered wattles such as Golden Wattle (*Acacia pycnantha*) and Hedge Wattle (*A. paradoxa*) but including a few other shrubs as well, such as Tree Violet (*Melicytus dentatus*), and a ground layer dominated by grasses." (DEECA, 2025b).

3.1.4 Threatened Species

The DEECA Victorian Biodiversity Atlas (VBA) contains a register of threatened flora and fauna species recorded in Victoria (DEECA, 2025g). A search has been generated encompassing a 5km buffer radius of the alignment for records of threatened species within the last 20 years. The search generated on the 30.10.2025 identified a total of 51 threatened species records, comprising of 19 threatened fauna species and 32 threatened flora species. The lists of species, their most recent record, habitat requirements and likelihood of occurrence are presented in **Table 3** and **Table 4** below. The criteria for determining the likelihood of threatened species occurring is outlined in **Table 1** below. **Table 2** indicates the criteria used for determining the likelihood of threatened species potentially being impacted by the project. Figures showing the locations of the closest VBA records can be found in **Appendix E**.

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Table 1: Criteria for determining the likelihood of threatened species occurring within the project area.

Likelihood	Criteria
High	• Recent records of species from VBA databases, especially those recorded within 200m of the project area • Review of EVC mapping suggesting potential habitat/vegetation within the project area • Review of habitat and distribution literature indicates the site is appropriate for the species
Moderate	• Historic records of species from VBA databases within the last 10 years • Review of EVC mapping suggesting potential habitat/vegetation within the project area • Review of habitat distribution literature indicates the site is appropriate for this species
Low	• Species has not been previously recorded within the VBA database in over 10 years • Review of EVC mapping suggests that available habitat/vegetation is not present on site • Review of literature regarding habitat and distribution indicates the site is unlikely to be utilised by this species
Very Low	• Conditions within the investigation area are incongruous with requirements of the species (e.g. marine pelagic species could not occur in a terrestrial investigation area; or a highly degraded environment lacking in habitat features required for species)

Table 2: Criteria for determining the likelihood of threatened species being impacted by the proposed works.

Likelihood	Criteria
High	• Species recorded within the assessment area during the site visit • Presence of high-quality habitat likely to be used by species within project area • High likelihood that suitable habitat will be removed/impacted by any future YVW infrastructure or development works within the assessment area.
Moderate	• Species observed passing through or near the Project Area (e.g. flying past, individual plants located nearby) • Presence of some habitat likely to be used by species within the project area • Potential for some suitable habitat to be removed/impacted by any future YVW infrastructure or development works within the assessment area.
Low	• Species not observed during site visit • Little to no suitable habitat recorded within the project area • Potential for some suitable habitat to be removed/impacted by any future YVW infrastructure or development works within the assessment area.
Very Low	• Species not observed during site visit • Conditions within the investigation area are incongruous with requirements of the species (e.g. marine pelagic species could not occur in a terrestrial investigation area; or a highly degraded environment lacking in habitat features required for species)

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Table 3: VBA Threatened Fauna Records within a 5km radius of the project area, within the last 20 years, generated on the 30.10.2025 (DEECA, 2025g).

Scientific Name	Common Name	Conservation Status EPBC	Conservation Status FFG	Last Record	Likelihood of Occurrence in the Project Area	Likelihood of Impacts Due to the Proposed Works
Ardea intermedia plumifera	Plumed Egret		cr	14/08/2021	**Moderate** - "Found in the shallow water at the edges of freshwater wetlands and the intertidal zone" (iNaturalist, 2025). Some suitable habitat for this species is located within the project area. Additionally, there are records of this species within the project area within the last 10 years.	**Low** – Species not recorded within the project area during the site assessments and minimal preferable habitat is present along the alignment.
Biziura lobata	Musk Duck		vu	07/03/2024	**Moderate** - "Predominately observed in densely reeded, deep, freshwater lagoons. Can be seen in medium to large flocks in the winter, but mostly seen solo or in pairs" (Birds in Backyards, 2025e). Some suitable habitat for this species is located within the project area. Additionally, there are records of this species within the project area within the last 10 years.	**Low** – Species not recorded within the project area during the site assessment. Potential habitat to be impacted by the proposed works is limited to highly degraded farm dams that are unlikely to form core habitat for this species.
Callocephalon fimbriatum	Gang-gang Cockatoo	EN	en	22/03/2023	**Moderate** - "In summer, this species is mostly found in tall, mountain woodlands and forests with a densely shrubby understorey. Over winter, they move to lower altitudes into drier, more open woodlands and forests and can often be seen in urban areas. This species relies on tall, hollowed trees for nesting" (Birds in Backyards, 2025b). Some suitable habitat for this species is located within the project area. Additionally, there are records of this species within the project area within the last 10 years.	**Low -** Species not recorded within the project area during the site assessment and minimal tree removal of suitable habitat for this species (hollow-bearing trees) is to occur to facilitate the proposed works.
Delma impar	Striped Legless Lizard	VU	en	18/03/2025	**Moderate -** "Mostly resides in native grasslands dominated by tussock forming grasses, predominantly in the Victorian Volcanic Plains. Is occasionally observed in areas dominated by exotic pasture grasses" (SWIFFT, 2025d). Some suitable habitat for this species is located within the project area. Additionally, there are records of this species within the project area within the last 10 years.	**Low to Moderate -** Species not recorded within the project area during the site assessment and minimal removal of preferable habitat for this species (native grasslands) is to occur to facilitate the proposed works. Additionally, the alignment has a history of disturbance due to previous pipeline construction work and as such, the species is unlikely to persist in the areas to be disturbed.
Falco subniger	Black Falcon		cr	25/05/2019	**Low** - "Found along tree-lined watercourses and in isolated woodlands, mainly in arid and semi-arid areas. It roosts in trees at night and often on power poles by day" (Birds in Backyards, 2025a). Minimal suitable habitat for this species is present within the	**Very Low** – Species not recorded within the project area during the site assessment and no suitable habitat for the species is to be impacted by the proposed works.

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Scientific Name	Common Name	Conservation Status EPBC	FFG	Last Record	Likelihood of Occurrence in the Project Area	Likelihood of Impacts Due to the Proposed Works
					project area and as such, it is likely that this species only moves through the area transiently.	
Gallinago hardwickii	Latham's Snipe	VU	vu	02/02/2024	**Low -** "Seen in small groups or singly in freshwater wetlands on or near the coast, generally among dense cover. They are found in any vegetation around wetlands, in sedges, grasses, lignum, reeds and rushes and also in saltmarsh and creek edges on migration. They also use crops and pasture." (Birds in Backyards, 2025c). Minimal suitable habitat for this species is present within the project area and as such, it is likely that this species only moves through the area transiently.	**Low** – Species not recorded within the project area during the site assessment and minimal preferable habitat is present along the alignment.
Hieraaetus morphnoides	Little Eagle		vu	29/11/2007	**Very Low** - "Seen over woodland and forested lands and open country, extending into the arid zone" (Birds in Backyards, 2025d). Conditions within the project area are incongruous with the habitat requirements for this species.	**Very Low** – Species not recorded within the project area during the site assessment and no suitable habitat for the species is to be impacted by the proposed works.
Jalmenus icilius	Amethyst Hairstreak Butterfly		en	07/04/2022	**Low** - Feeds on and pupates on or under a variety of plants including *Senna nemophila, Daviesia benthamii* and *Acacia melanoxylon* (Butterfly House, 2025). Minimal suitable habitat for this species is present within the project area.	**Very Low** – Species not recorded within the project area during the site assessment and suitable habitat for the species (*Acacia melanoxylon*) occurs in planted rail side reserves not to be impacted by the proposed works.
Litoria raniformis	Growling Grass Frog	VU	vu	28/08/2025	**High –** "Mostly found amongst emergent vegetation including *Typha* sp. (bullrush), *Phragmites* sp. (reeds) and *Eleocharis* sp.(sedges), in or at the edges of still or slow-flowing water bodies such as lagoons, swamps, lakes, ponds and farm dams. Can also occur in clays or well-watered sandy soils; open grassland, open forest, and ephemeral and permanent non-saline marshes and swamps; montane eucalypt forest, dry sclerophyll forest in coastal Victoria; steep-banked water edges (like ditches and drains) and gently graded edges containing fringing plants; and formerly, areas of high altitudes" (DCCEEW, 2024). There are multiple recent records of this species on VBA within the project area.	**Low to Moderate** – Presence of habitat likely to be used by the species along the alignment and recent sightings of the species recorded on the VBA (Merri Creek). However, only a small amount of potential transient habitat limited to farm dams and minor drainage lines are to be impacted by the proposed works.
Miniopterus orianae oceanensis	Eastern Bent-winged Bat		cr	*09/03/2022	**Very Low -** Tends to roost in caves (including coastal cliffs, old mine shafts and rock caves) located near foraging areas (SWIFFT, 2025b). Conditions within the project area are incongruous with the habitat requirements for this species.	**Very Low** – Species not recorded within the project area during the site assessment and no suitable habitat for the species is to be impacted by the proposed works.

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Scientific Name	Common Name	Conservation Status EPBC	Conservation Status FFG	Last Record	Likelihood of Occurrence in the Project Area	Likelihood of Impacts Due to the Proposed Works
Ornithorhynchus anatinus	Platypus		vu	06/12/2021	**Low** - "Prefers rivers or streams with earth banks and native vegetation that provides shelter within the water", particularly with the "presence of logs, twigs, and roots, as well as cobbled or gravel water substrate" … "Tends to be more abundant in areas with pool-riffle sequences" (Australian Museum, 2024). Conditions within the project area are unlikely to be preferable for this species, with only minimal records of this species within the project area on the VBA within the last 10 years.	**Very Low** – Species not recorded within the project area during the site assessment and no suitable habitat for the species is to be impacted by the proposed works.
Oxyura australis	Blue-billed Duck		vu	17/07/2021	**Moderate** - "Inhabits fresh to saline, deep permanent open wetlands and deep, densely vegetated lakes. During the breeding season (November - March) they prefer deep freshwater wetlands with abundant aquatic and emergent vegetation" (SWIFFT, 2025a). Some suitable habitat for this species is located within the project area. Additionally, there are records of this species within the project area within the last 10 years.	**Low** – Species not recorded within the project area during the site assessment. Potential habitat to be impacted by the proposed works is limited to highly degraded farm dams that are unlikely to form core habitat for this species.
Pseudemoia pagenstecheri	Tussock Skink		en	21/03/2025	**Moderate** - Tends to be found amongst "medium to long grass tussocks in open grasslands where trees are absent or sparse" (ALA, 2025a). Some suitable habitat for this species is located within the project area. Additionally, there are records of this species within the project area within the last 10 years.	**Low to Moderate -** Species not recorded within the project area during the site assessment and minimal removal of preferable habitat for this species (native grasslands) is to occur to facilitate the proposed works. Additionally, the alignment has a history of disturbance due to previous pipeline construction work and as such, the species is unlikely to persist in the areas to be disturbed.
Pteropus poliocephalus	Grey-headed Flying-fox	VU	vu	25/02/2020	**Low -** "Utilises vegetation communities including rainforests, open forest, closed and open woodlands, Melaleuca swamps and Banksia woodlands" (DCCEEW, 2025a). Although there are records of this species within the project area within the last 10 years on VBA, the species is likely to only utilise the project area transiently. Additionally, there are no known permanent colonies within the project area.	**Very Low** – Species not recorded within the project area during the site assessment and no known permanent colonies of this species are known to occur within the project area.
Saccolaimus flaviventris	Yellow-bellied Sheathtail Bat		vu	04/04/2024	**Moderate** - "Roost in hollows in old trees, and sometimes in the abandoned nests of sugar gliders. They usually form small colonies of up to 30" (Australian Museum, 2020). Some suitable habitat for this species is located within the project area. Additionally, there are records of this species within the project area within the last 10 years.	**Low -** Species not recorded within the project area during the site assessment and only one hollow-bearing tree is to be impacted by the proposed works.

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Scientific Name	Common Name	Conservation Status EPBC	Conservation Status FFG	Last Record	Likelihood of Occurrence in the Project Area	Likelihood of Impacts Due to the Proposed Works
Spatula rhynchotis	Australasian Shoveler		vu	01/03/2024	**Moderate** - Found in "fresh and salt water wetlands and lakes with heavy vegetation" (ALA, 2025b). Some suitable habitat for this species is located within the project area. Additionally, there are records of this species within the project area within the last 10 years.	**Low** – Species not recorded within the project area during the site assessment. Potential habitat to be impacted by the proposed works is limited to highly degraded farm dams that are unlikely to form core habitat for this species.
Synemon plana	Golden Sun Moth	VU	vu	05/12/2024	**High** – "Occurs in native grasslands dominated by the genus *Rytidosperma* Wallaby Grass, in particular *Rytidosperma carphoides, R. auriculata, R. eriantha*, and *R. setacea*" (SWIFFT, 2025c). Some suitable habitat for this species is located within the project area. Additionally, there are multiple records of this species within the project area within the last 10 years.	**Moderate** – Presence of habitat likely to be used by the species within the project area and multiple recent sightings of the species recorded on the VBA in proximity to the project area. However, species was not recorded within the project area during the site assessment and minimal removal of preferable habitat for this species (native grasslands) is to occur to facilitate the proposed works. Additionally, the alignment has a history of disturbance due to previous pipeline construction work and as such, the species is unlikely to persist in the areas to be disturbed.
Trapezites luteus luteus	Yellow Ochre Butterfly		en	29/10/2023	**Moderate** - Found in "Eucalypt woodlands and grasslands; subalpine woodland; open woodland"... Breeding host plants include "species of Lomandra, such as *L. confertifolia*, *L. densiflora* (Soft Tussock Mat-rush), *L. filiformis* (Wattle Mat Rush), *L. longifolia* (Spiny-head Mat-rush), and *L. multiflora*" (ALA, 2025c). Some suitable habitat for this species is located within the project area. However, there are only a couple of records of this species within the project area within the last 10 years.	**Low** – Presence of some suitable habitat with potential to be used by the species occurs within the project area; however, species was not recorded within the project area during the site assessment and minimal removal of preferable habitat for this species (patch-quality native vegetation) is to occur to facilitate the proposed works. Additionally, the alignment has a history of disturbance due to previous pipeline construction work and as such, the species is unlikely to persist in the areas to be disturbed.
Turnix pyrrhothorax	Red-chested Button-quail		en	23/12/2010	**Low -** "Preferred habitat is in dense grasslands, and open, grassy, woodland of Acacia (Fabaceae), River Red Gum (*Eucalyptus camaldulensis*) and Black Box (*E. largiflorens*) or Melaleuca (Myrtaceae), but also in crops and weedy fields with dense ground cover, and from coastal plains... The common factors in their desired habitat seems to be bare ground and abundant leaf litter, little or no understorey, patches of tussock grass or sedges" (ALA, 2025d). Some suitable habitat for this species may be located within the project area. However, this species has not been recorded within the project area in over 10 years.	**Low** – Species not recorded within the project area during the site assessment and minimal preferable habitat is present along the alignment.

EPBC = *Environment Protection and Biodiversity Conservation Act 1999* (National) EN (Endangered); VU (Vulnerable)
FFG = *Flora and Fauna Guarantee Act 1988* (State) cr = critically endangered, en = endangered, vu = vulnerable

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Five of the species listed in **Table 3** (Plumed Egret, Musk Duck, Latham's Snipe, Blue-billed Duck, Australasian Shoveler) are waterbirds that prefer habitats such as lakes, lagoons, dams, rivers, and swamps which, although are in proximity to the project area, are mostly absent within the construction corridor. These species may use farm dams or waterways transiently throughout the project area; however, the conditions present within the construction corridor are unlikely to be conducive with core habitat for these species.

Two of the species (Growling Grass Frog, Platypus) are fauna that heavily rely on creekside/riparian vegetation for habitat and as a food source. Critical habitat for these species may be present within the Merri Creek corridor, and these species may use nearby vegetation as transient habitat elsewhere nearby the creek. However, the Merri Creek corridor section will be constructed using trenchless excavation (i.e. boring) and as such, the project will avoid significant impacts to these species. Additionally, works in the vicinity of Malcolm Creek (further potential habitat for these species) will also be constructed using trenchless excavation and as such, the project will avoid significant impacts to these species. Strict sediment and erosion controls are to be implemented during construction in proximity to these creeklines to mitigate any indirect impacts to these species as a result of the proposed works.

Species such as the Gang-gang Cockatoo, Black Falcon, Little Eagle and Yellow-bellied Sheathtail Bat may inhabit large, hollowing-bearing trees within the project area, or forested areas along Merri Creek, especially where there are large trees. However, large trees removal has been predominately avoided by the proposed works.

The construction corridor may contain habitat for terrestrial fauna: grassland habitat for the Striped Legless Lizard, Tussock Skink, Golden Sun Moth, Amethyst Hairstreak Butterfly, Yellow Ochre Butterfly or Red-chested Button-quail; or foraging habitat for the Grey-headed Flying-fox. However, given the existing site conditions, history of disturbance along the construction corridor (i.e. construction of the Amaroo pipeline and regular slashing), highly degraded nature of remaining vegetation present on site and minimal amount of native vegetation removal required, it is unlikely that these species persist within the construction corridor.

Fauna such as the Eastern Bent-winged Bat are unlikely to be present within the construction corridor as suitable habitat for this species (i.e. cave habitat) is not present.

As such, it is considered unlikely that the proposed works will have a significant impact on any of the above listed threatened fauna species.

Refer to **Appendix E.1** for a map illustrating the location of the most recent VBA fauna records.

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Table 4: VBA Threatened Flora Records within a 5km radius of the project area, within the last 20 years, generated on 30.10.2025 (DEECA, 2025g).

Scientific Name	Common Name	Conservation Status EPBC	Conservation Status FFG	Last Record	Likelihood To Occur in The Project Area	Likelihood of Impacts in the Project Area	Flowering Time
Acacia howittii	Sticky Wattle		vu #	19/20/2025	**Low –** "Confined to eastern Victoria, grows in moist forests, widely cultivated and naturalising in some areas" (VicFlora, 2018a). Although there are recent records of this species within the project area on the VBA, this species does not occur locally, naturally. As such, if present it is likely that this species has been planted.	**Low** – The project area is highly disturbed, habitat requirements for this species was not observed along the alignment and species is outside of natural range.	Oct
Amphibromus fluitans	River Swamp Wallaby-grass	VU		10/11/2020	**Low –** "Largely confined to permanent swamps, principally along the Murray River between Wodonga and Echuca, uncommon to rare in the south (e.g. Casterton, Moe, Yarram), probably due to historic drainage of wetlands" (VicFlora, 2020). Habitat requirements for this species are unlikely to be present within the project area.	**Low** – Species was not recorded along the alignment during the site assessments and is unlikely to occur within the project area.	Nov – Mar
Amphibromus pithogastrus	Plump Swamp Wallaby-grass		cr	24/10/2018	**Moderate – "**A rare species of shallow, seasonally inundated depressions (e.g. gilgais) on water-retentive clay soils supporting grasslands and grassy woodlands. Known from near Mansfield and scattered occurrences to the south and west (e.g. Yea, Heathcote, Craigieburn, Beaufort, Dunkeld, Casterton)" (VicFlora, 2016a). Habitat for this species may be present within the project area; however, there are minimal records of this species within the project area in the last 10 years.	**Low to Moderate** – Species was not recorded along the alignment during the site assessments and the project area is highly disturbed. However, some suitable habitat for this species may be impacted by the proposed works.	Oct - Dec
Callitriche umbonata	Winged Water-starwort		en	10/10/2012	**Low -** Scattered and uncommon, mainly in inland parts of Victoria, in damp and swampy places (VicFlora, 1999). Habitat requirements for this species are unlikely to be present within the project area. Additionally, this species has not been recorded within the project area in the last 10 years.	**Low** – Species was not recorded along the alignment during the site assessments and is unlikely to occur within the project area.	Aug - Dec
Carex tasmanica	Curly Sedge		en	01/09/2023	**Moderate -** "Confined to seasonally wet, heavy clayey soils immediately north of Melbourne (Craigieburn) and farther west (to Heywood near Portland)" (VicFlora, 2018b). Some suitable habitat for this species may be present within the project area. Additionally, there are multiple records of this species on the VBA within the project area in the last 10 years.	**Low to Moderate** – Species was not recorded along the alignment during the site assessments and the project area is highly disturbed. However, some suitable habitat for this species may be impacted by the proposed works.	Spring
Coronidium gunnianum	Pale Swamp Everlasting		cr	22/01/2025	**Moderate** - "Widespread throughout the state except for the north-west and the alpine and adjacent mountainous areas, and usually at low elevations (under c. 100 m) where mostly in grasslands and riverine Eucalyptus camaldulensis woodland on soils that are prone to inundation" (VicFlora, 2017a). Some suitable habitat for this species may be present within the	**Low to Moderate** – Species was not recorded along the alignment during the site assessments and the project area is highly disturbed. However, some suitable habitat for this species may be impacted by the proposed works.	Feb - Apr

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Scientific Name	Common Name	Conservation Status EPBC	FFG	Last Record	Likelihood To Occur in The Project Area	Likelihood of Impacts in the Project Area	Flowering Time
					project area. Additionally, there are multiple records of this species on the VBA within the project area in the last 10 years.		
Corymbia maculata	Spotted Gum		vu #	*21/03/2025	**Low –** "Only known in Victoria from the Mottle Range, south of Buchan" (Vicflora, 2021a). Although there are recent records of this species within the project area on the VBA, this species does not occur locally, naturally. As such, if present it is likely that this species has been planted.	**High** – This species was recorded along the alignment during the site assessment, with some individuals to be impacted by the proposed works. However, this species is outside of its natural range and as such has been determined to be planted.	July - Sep
Cullen tenax	Tough Scurf-pea		en	*15/01/2024	**Moderate –** "Widespread in Victoria but now much depleted from its former range and seldom collected. Generally, grows in drier parts of the state in grassland and grassy woodland on heavy soils" (VicFlora, 2019a). Some suitable habitat for this species may be present within the project area. Additionally, there are multiple records of this species on the VBA within the project area in the last 10 years.	**Low to Moderate** – Species was not recorded along the alignment during the site assessments and the project area is highly disturbed. However, some suitable habitat for this species may be impacted by the proposed works.	Most of the year
Dianella amoena	Matted Flax-lily	EN	cr	*18/03/2025	**Moderate –** "Largely confined to drier grassy woodland and grassland communities south of the Dividing Range" (VicFlora, 2021b). Some suitable habitat for this species may be present within the project area. Additionally, there are multiple records of this species on the VBA within the project area in the last 10 years.	**Low to Moderate** – Species was not recorded along the alignment during the site assessments and the project area is highly disturbed. However, some suitable habitat for this species may be impacted by the proposed works.	Nov - Dec
Dianella longifolia var. grandis s.l.	Glaucous Flax-lily		cr	*24/12/2024	**Moderate –** "Occurs in lowland plains grassland and grassy woodlands (e.g. Volcanic Plain and Riverina) as well as around rocky outcrops at higher altitudes than the var. *longifolia* (e.g. between Swifts Creek and Omeo, Benambra-Corryong district, Don River near Launching Place). Overall, rather rare in the State" (VicFlora, 1994b). Some suitable habitat for this species may be present within the project area. Additionally, there are multiple records of this species on the VBA within the project area in the last 10 years.	**Low to Moderate** – Species was not recorded along the alignment during the site assessments and the project area is highly disturbed. However, some suitable habitat for this species may be impacted by the proposed works.	Nov - Dec
Diuris basaltica	Small Golden Moths	EN	cr	08/10/2024	**Moderate** - "Extremely rare on basalt plains grassland immediately to the west of Melbourne" (VicFlora, 2018c). Some suitable habitat for this species may be present within the project area. Additionally, there are multiple records of this species on the VBA within the project area in the last 10 years.	**Low to Moderate** – Species was not recorded along the alignment during the site assessments and the project area is highly disturbed. However, some suitable habitat for this species may be impacted by the proposed works.	Sep - Oct

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Scientific Name	Common Name	Conservation Status EPBC	FFG	Last Record	Likelihood To Occur in The Project Area	Likelihood of Impacts in the Project Area	Flowering Time
Diuris behrii	Golden Cowslips		en	23/10/2016	**Moderate –** "Locally common in grassland and open woodland mostly in western Victoria" (VicFlora, 2021c). Some suitable habitat for this species may be present within the project area. Additionally, there are multiple records of this species on the VBA within the project area in the last 10 years.	**Low to Moderate** – Species was not recorded along the alignment during the site assessments and the project area is highly disturbed. However, some suitable habitat for this species may be impacted by the proposed works.	Sep - Nov
Eucalyptus crenulata	Buxton Gum	EN	en #	*11/12/2024	**Low –** "Confined to swampy sites in foothills just north and south of the Great Dividing Range, near Buxton, Narbethong and Yarra Glen where it forms hybrids at points of contact with the far more widespread Swamp Gum, *E. ovata*. Also sparingly established at Traralgon in Victoria" (VicFlora, 2018d). Although there are recent records of this species within the project area on the VBA, this species does not occur locally, naturally. As such, if present it is likely that this species has been planted.	**Very Low** – Species was not recorded along the alignment during the site assessments. Additionally, this species is outside of its natural range and if present in the project area, will have been planted.	Sep - Feb
Eucalyptus kitsoniana	Bog Gum		cr	05/12/2017	**Low –** "Occurring on coastal lowlands from Yarram west to Cape Otway, and Mt Richmond near Portland. It also occurs on top of Mt Oberon (Wilsons Promontory) and on nearby Snake Island" (VicFlora, 1996). Although there are recent records of this species within the project area on the VBA, this species does not occur locally. As such, if present it is likely that this species has been planted.	**Very Low** – Species was not recorded along the alignment during the site assessments. Additionally, this species is outside of its natural range and if present in the project area, will have been planted.	Aug - Mar
Eucalyptus leucoxylon subsp. megalocarpa	Large-fruit Yellow-gum		cr #	*21/03/2025	**Low –** "The Victorian occurrence, near Nelson, is the easternmost part of the mainly South Australian coastal distribution, south of Mt Gambier" (VicFlora, 2019b). Although there are recent records of this species within the project area on the VBA, this species does not occur locally, naturally. As such, if present it is likely that this species has been planted.	**Very Low** – Species was not recorded along the alignment during the site assessments. Additionally, this species is outside of its natural range and if present in the project area, will have been planted.	Spring - Summer
Eucalyptus sideroxylon subsp. sideroxylon	Mugga		en	05/12/2018	**Low -** "Confined to the Chiltern area, northern Warby Range and south of Winton" (VicFlora, 2018e). Although there are recent records of this species within the project area on the VBA, this species does not occur locally, naturally. As such, if present it is likely that this species has been planted.	**Very Low** – Species was not recorded along the alignment during the site assessments. Additionally, this species is outside of its natural range and if present in the project area, will have been planted.	May - Oct
Eucalyptus X studleyensis	Studley Park Gum		cr	*16/11/2022	**Moderate –** "A morphologically variable hybrid between *E. camaldulensis* subsp. *camaldulensis* and *E. ovata* subsp. *ovata* from the lower Yarra River north-east of Melbourne (Kew, Viewbank, Watsonia)" (VicFlora, 2018f). Some suitable habitat for this species may be present within the project area. Additionally, there are records of this species on the VBA within the project area in the last 10 years.	**High** - This species was recorded along the alignment during the site assessment, with one remnant individual to be impacted by the proposed works.	(Not known)

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Scientific Name	Common Name	Conservation Status EPBC	FFG	Last Record	Likelihood To Occur in The Project Area	Likelihood of Impacts in the Project Area	Flowering Time
Geranium solanderi var. solanderi s.s.	Austral Crane's-bill		en	*01/05/2025	**Moderate –** "An uncommon species of damp to dryish, usually sheltered sites in grassy woodlands, often along drainage lines or in seepage areas" (VicFlora, 2016). Some suitable habitat for this species may be present within the project area. Additionally, there are multiple records of this species on the VBA within the project area in the last 10 years.	**Low to Moderate** – Species was not recorded along the alignment during the site assessments and the project area is highly disturbed. However, some suitable habitat for this species may be impacted by the proposed works.	Oct - Jan
Geranium sp. 1	Large-flower Crane's-bill		cr	03/02/2012	**Low –** "Known only from basaltic grassland (now generally weedy) in the Glenroy-Broadmeadows area, Riddells Creek and Malmsbury" (Vicflora, 2018g). The project area isn't within the known range for this species; however, some suitable habitat for this species may be present within the project area.	**Low** - Species was not recorded along the alignment during the site assessments and the project area isn't within the known range for this species.	Apr, Jun, Dec
Geranium sp. 3	Pale-flower Crane's-bill		en	*26/11/2021	**Moderate -** "In Victoria, currently known only from Stawell, Yan Yean, Eltham, and Bonegilla areas. Incomplete specimens from near Goroke and Hamilton areas may be of this species. Found in open, grassy areas of dry woodland to forest" (VicFlora, 2021d). Some suitable habitat for this species may be present within the project area. Additionally, there are multiple records of this species on the VBA within the project area in the last 10 years.	**Low to Moderate** – Species was not recorded along the alignment during the site assessments and the project area is highly disturbed. However, some suitable habitat for this species may be impacted by the proposed works.	Sept - Jan
Goodia medicaginea	Western Golden-tip		en	*17/02/2025	**Moderate -** Favours drier sites and is found "sporadically in the south-west, at long forest west of Melbourne, in central Victoria near Eaglehawk and at Killawarra Forest, and near Suggan Buggan in the east" (Vicflora, 2019c). Some suitable habitat for this species may be present within the project area. Additionally, there are multiple records of this species on the VBA within the project area in the last 10 years.	**Low to Moderate** – Species was not recorded along the alignment during the site assessments and the project area is highly disturbed. However, some suitable habitat for this species may be impacted by the proposed works.	Aug - Sep
Lachnagrostis semibarbata var. semibarbata	Purple Blown-grass		en	*11/12/2024	**Moderate –** "Scattered from near Melbourne to the South Australian border, mainly in grassland, occasionally woodland communities in somewhat saline depressions of the volcanic plain, but also known from seasonal, slightly brackish swampy sites east of Melbourne (e.g. Cranbourne, Safety Beach, Giffard, Sale areas)" (VicFlora, 2019d). Some suitable habitat for this species may be present within the project area. Additionally, there are multiple records of this species on the VBA within the project area in the last 10 years.	**Low to Moderate** – Species was not recorded along the alignment during the site assessments and the project area is highly disturbed. However, some suitable habitat for this species may be impacted by the proposed works.	Oct - Feb
Lepidium hyssopifolium s.s.	Basalt Peppercress	EN	en	15/06/2018	**Moderate** – "Collected from scattered sites on the volcanic plain, but now much reduced from its former range and recorded recently only from e.g. Moorabool, Winchelsea, Bacchus Marsh, Woodend, Trentham. Most recent collections are from disturbed, rather weedy sites. One collection from near Port Fairy is noteworthy for its occurrence in a slightly	**Low to Moderate** – Species was not recorded along the alignment during the site assessments and the project area is highly disturbed. However, some suitable habitat for	Summer - Autumn

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Scientific Name	Common Name	Conservation Status EPBC	FFG	Last Record	Likelihood To Occur in The Project Area	Likelihood of Impacts in the Project Area	Flowering Time
					saline estuary amongst saltmarsh and fringing sedgeland" (VicFlora, 2019e). Some suitable habitat for this species may be present within the project area. Additionally, there are multiple records of this species on the VBA within the project area in the last 10 years.	this species may be impacted by the proposed works.	
Melaleuca armillaris subsp. armillaris	Giant Honey-myrtle		en #	*21/03/2025	**Moderate –** "Mainly confined to near-coastal sandy heaths, scrubs slightly raised above saltmarsh, riparian scrubs, rocky coastlines and foothill outcrops eastwards from about Marlo" (Vicflora, 2019f). Although there are recent records of this species within the project area on the VBA, this species does not occur locally, naturally. As such, if present it is likely that this species has been planted.	**Very Low** - Species was not recorded along the alignment during the site assessments and is outside of its naturally occurring range.	Summer
Melaleuca halmaturorum	Salt Paperbark		en #	*21/03/2025	**Moderate** - In Victoria "mostly fringing salt lakes in the north-west (where becoming rare), with an isolated near-coastal occurrence on saline ground at Tyrendarra, near Portland" (VicFlora, 2019g). Although there are recent records of this species within the project area on the VBA, this species does not occur locally, naturally. As such, if present it is likely that this species has been planted.	**Very Low** - Species was not recorded along the alignment during the site assessments and is outside of its naturally occurring range.	Spring
Microseris scapigera s.s.	Plains Yam-daisy		cr	*11/12/2024	**Moderate –** "Formerly widespread in moist depressions on the basalt plains of western Victoria, but now very rare due to loss of habitat" (VicFlora, 2017b). Some suitable habitat for this species may be present within the project area. Additionally, there are multiple records of this species on the VBA within the project area in the last 10 years.	**Low to Moderate** – Species was not recorded along the alignment during the site assessments and the project area is highly disturbed. However, some suitable habitat for this species may be impacted by the proposed works.	Spring - Summer
Nicotiana suaveolens	Austral Tobacco		en	04/02/2019	**Moderate –** "Widespread, particularly in drier areas, often in rocky places" (Vicflora, 2018h). Some suitable habitat for this species may be present within the project area. Additionally, there are multiple records of this species on the VBA within the project area in the last 10 years.	**Low to Moderate** – Species was not recorded along the alignment during the site assessments and the project area is highly disturbed. However, some suitable habitat for this species may be impacted by the proposed works.	Spring - Summer
Podolepis linearifolia	Basalt Podolepis		en	*22/01/2025	**Moderate –** "Usually grows on heavy clay soils in grasslands but also recorded for grassy woodlands, open forests and around swamps. Two old collections purportedly from the Mornington Peninsula and the Wimmera are of doubtful provenance" (VicFlora, 2022a). Some suitable habitat for this species may be present within the project area. Additionally, there are multiple records of this species on the VBA within the project area in the last 10 years.	**Low to Moderate** – Species was not recorded along the alignment during the site assessments and the project area is highly disturbed. However, some suitable habitat for this species may be impacted by the proposed works.	Sep - Dec

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Scientific Name	Common Name	Conservation Status EPBC	FFG	Last Record	Likelihood To Occur in The Project Area	Likelihood of Impacts in the Project Area	Flowering Time
Ranunculus diminutus	Brackish Plains Buttercup		en	*01/09/2023	**Low –** "Uncommon to rare in Victoria and recorded only from seasonally wet clay soils fringing Lake Omeo in the east and Lakes Corangamite, Goldsmith and Kennedy in the west (between Colac and Hamilton)" (VicFlora, 2018i). The project area isn't within the known range for this species; however, some suitable habitat for this species may be present within the project area.	**Low** - Species was not recorded along the alignment during the site assessments and the project area isn't within the known range for this species.	Sep - Feb
Rhagodia parabolica	Fragrant Saltbush		vu #	*08/04/2025	**Moderate –** "In Victoria occurs on a few steep rocky slopes and broad ridges between Sunbury and Geelong (e.g. Jacksons Creek, Long Forest, Werribee Gorge, Steiglitz, Buckleys Falls on the Barwon River), but locally rather common, and in mallee at a few scattered locations in the northwest" (VicFlora, 2019h). Although there are recent records of this species within the project area on the VBA, VBA notes that some stands of this species may be alien. As such, if present this species may have been planted.	**High** – Highly disturbed environment, however this species was observed during the site assessments. It is unsure whether these individuals have been planted due to the habitat they occur in.	Sep - Jan
Tripogonella loliiformis	Rye Beetle-grass		en	24/10/2018	**Moderate –** "An uncommon grass of scattered occurrence through drier areas of the state (e.g. Mt Arapiles, basalt plains just west of Melbourne, Strathbogie Ranges, Killawarra Forest near Wangaratta, Beechworth, Suggan Buggan). Usually occurring on shallow soils overlying rock" (VicFlora, 2017c). Some suitable habitat for this species may be present within the project area. Additionally, there are multiple records of this species on the VBA within the project area in the last 10 years.	**Low to Moderate** – Species was not recorded along the alignment during the site assessments and the project area is highly disturbed. However, some suitable habitat for this species may be impacted by the proposed works.	Oct - Mar
Xerochrysum palustre	Swamp Everlasting	VU	cr	29/11/2017	**Low –** "Occurs in lowland swamps, usually on black cracking clay soils, scattered from near the South Australian border north-west of Portland to Bairnsdale district, but rare due to habitat depletion" (VicFlora, 2022b). The project area isn't within the known range for this species; however, some suitable habitat for this species may be present within the project area.	**Low** - Species was not recorded along the alignment during the site assessments and the project area isn't within the known range for this species.	Nov - Mar

EPBC = *Environment Protection and Biodiversity Conservation Act 1999* (National) EN (Endangered); VU (Vulnerable)
FFG = *Flora and Fauna Guarantee Act 1988* (State), cr = critically endangered, en = endangered, vu = vulnerable, th = threatened, # = native, but some stands may be alien.

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The construction corridor is largely restricted to the existing YVW freehold land, with much of the surrounding area having a history of past clearing and agricultural grazing, resulting in little opportunity for threatened flora species to persist.

Limited remnant vegetation remains across the proposed project area and much of the understorey is dominated by exotic pasture grasses and broadleaf weedy species. Native, smaller flowering, herbaceous and grass species as listed in **Table 4** above, may persist, particularly in grassland-like and rocky knoll areas observed during the site assessments, however, none of these species were observed during the site assessments which were undertaken during the optimal time for flora surveys.

Species including Sticky Wattle, Spotted Gum, Buxton Gum, Large-fruit Yellow-gum, Giant Honey-myrtle, and Salt Paperbark are outside of their natural range and if present are likely to have been planted.

Species including the Matted Flax-lily and Fragrant Saltbush, have previous VBA records within or directly adjacent the construction corridor. No Matted Flax-lily individuals were recorded within the construction corridor; however, multiple Fragrant Saltbush individuals were recorded within the original project area during the site assessments. Many of these individuals have since been avoided through alterations of the construction corridor. As such, it is unlikely that this species will be significantly impacted by the proposed works.

Many of the other VBA flora records are greater than 500m away from the project area. Considering much of the alignment is within areas of previous high disturbance and threatened flora species recorded within the construction corridor during the site assessments are largely planted, it is unlikely that threatened flora species as listed above will be significantly impacted by any of the proposed works.

Refer to **Appendix E.2** for a map illustrating the location of the most recent VBA flora records.

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3.1.5 Relevant Legislation

The relevant federal and state environmental legislation has been reviewed for permit and approval triggers below.

3.1.5.1 Environment Protection and Biodiversity Conservation Act 1999 (Federal)

The EPBC Act establishes a Commonwealth process for assessment of proposed actions that are likely to have a 'significant impact' on Matters of National Environmental Significance (MNES), or on Commonwealth Land. An action is defined as a project, a development, an undertaking, an activity or a series of activities, or an alteration of any of these things. An action, unless otherwise exempt, requires approval from the Commonwealth Environment Minister if the action has, will have, or is likely to have a 'significant impact' on a MNES. An EPBC Act Referral is required if actions are likely to impact on a matter of MNES (e.g., threatened species).

All areas outside of the Melbourne Strategic Assessment Mitigation Area

The Protected Matters Search Tool (PMST) is an online database that identifies if MNES or other matters protected by the EPBC Act are likely or known to occur in the area of interest. For all areas outside of the MSA, the *EPBC Act 1999* is applicable. An EPBC Protected Matters Search Tool Report with a 5km buffer area was generated on the 31.10.2025 to determine whether any MNES or habitat may occur within or near the construction corridor areas that occur outside of the MSA area (DCCEEW, 2025b).

Below is a summary of relevant results from the Protected Matters Search Report (only results that are "known" to occur in the investigation area and buffer are presented in the following list - full results are presented in **Appendix F**):

- **5 Threatened Ecological Communities**:

Of these 5 TEC's, 1 is known to occurs within a 5km radius of the site:

  - Grassy Eucalypt Woodland of the Victorian Volcanic Plain (Critically endangered)

- **51 Threatened Species:**

Of these 44 species, 15 are known to occur within a 5km radius of the site:

  - 6 birds –Southern Whiteface (*Aphelocephala leucopsis*), Latham's Snipe (*Gallinago hardwickii*), White-throated Needletail (*Hirundapus caudacutus*), Swift Parrot (*Lathamus discolor),* Blue-winged Parrot (*Neophema chrysostoma*) and Australian Painted Snipe (*Rostratula australis*).
  - 1 frog – Growing Grass Frog (*Litoria raniformis).*
  - 1 insect – Golden Sun Moth (*Synemon plana).*
  - 1 mammal – Grey-headed Flying-fox (*Pteropus poliocephalus).*
  - 1 reptile – Striped Legless Lizard (*Delma impar*).
  - 5 plants – River Swamp Wallaby-grass (*Amphibromus fluitans*), Matted Flax-lily (*Dianella amoena*), Adamson's Blown-grass (*Lachnagrostis adamsonii*), Basalt Pepper-cress (*Lepidium hyssopifolium*), and Swamp Everlasting (*Xerochrysum palustre*).

- **22 Listed Marine Species:**

Of these 22 species, 8 are known to occur within a 5km radium of the site:

  - Black-eared Cuckoo (*Chalcites osculans as Chrysococcyx osculans*), Latham's Snipe, White-throated Needletail, Swift Parrot, Satin Flycatcher (*Myiagra cyanoleuca*), Blue-winged Parrot, Rufous Fantail (*Rhipidura rufifrons*) and Australian Painted Snipe (*Rostratula australis* as *Rostratula benghalensis*).

- **11 Migratory Species**:

Of these 11 species, 2 are known to occur within a 5km radius of the site:

  - 1 migratory terrestrial bird and 1 migratory wetland bird.

- **(All RAMSAR sites are > 150km downstream from the buffer for the project area)**

- **4 State and Territory Reserve:**

None of these reserves occur within the project area.

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Although 'known to occur' within the project area, none of the EPBC protected species listed above were recorded within the project area during the site assessments.

Areas which may provide critical habitat for fauna species such as the Growling Grass Frog (listed as Vulnerable under the EPBC Act), are to be avoided by the project through construction of the alignment being undertaken using trenchless techniques (i.e. boring). The presence of scattered native grass species such as Wallaby Grass and other native tussock forming grasses, as well as some tussock forming exotic grass species could host the presence of Golden Sun Moth (listed as Vulnerable under the EPBC Act). At multiple points along the alignment, soil cracks were also noted which could form habitat for the Striped Legless Lizard (listed as Vulnerable under the EPBC Act). However, the alignment is predominately restricted to the existing YVW freehold land that has been heavily disturbed in the recent years as a result of the Amaroo Pipeline installation, as well as being regularly maintained through mowing/slashing. As such, the habitat value for fauna species (including threatened species) has been reduced and it is unlikely that much of the construction corridor is preferable habitat for many of the above listed threatened species, (i.e. Golden Sun Moth or the Striped Legless Lizard).

Conditions and flora species observed during the site assessments indicated that two EPBC threatened ecological communities (Grassy Eucalypt Woodland of the Victorian Volcanic Plain and Natural Temperate Grassland of the Victorian Volcanic Plain) are likely to exist along or adjacent to the alignment. Multiple patches of native vegetation with potential to be consistent with these ECs (EVC 55 – Plains Grassy Woodland and EVC 132 – Plains Grassland) were mapped within the project area. However, formal classification of native vegetation was not undertaken for all habitat zones thought to be consistent with EPBC listed threatened ecological communities as they were located within an MSA area, and native vegetation classification has already been accounted for under the MSA. As the areas of vegetation likely consistent with EPBC listed threatened ecological communities within the MSA area have not been mapped as 'Vegetation to be retained' under an incorporated Native Vegetation Retention and Removal Plan (NVPP) under the relevant planning scheme, the vegetation does not require additional approval under the EPBC Act for impacts.

Two patches with potential to be consistent with Natural Temperate Grassland of the Victorian Volcanic Plain are mapped as occurring outside of the MSA area (HZ5 and HZ6). However, these patches have been avoided by the project through restriction of the construction corridor.

As such, it is considered unlikely that there will be any significant impacts to any MNES and that referral under the EPBC Act is not required for the project.

Please note: Assessment work and surveys were undertaken prior to the re-discovery of the Victorian Grassland Earless Dragon (VGED) (*Tympanocryptis pinguicolla*). It is understood that the VGED has been recently re-discovered in the Upper Merri Creek catchment area. Although the VGED did not appear in the EPBC MNES search generated for the project area, potential impacts to the species have been considered as part of this assessment.

It is our understanding through correspondence with DEECA (Simon Denby, 2025) that many habitat components to be considered suitable habitat for the VGED are absent within the Aurora NDW – Stage 1 project footprint. Although sparsely scattered native grasses are present along much of the proposed alignment (refer **Appendix C**), there is an overall lack of native tussock forming grasses (preferred habitat for the VGED). Additionally, there is existing underground infrastructure within the project footprint (Amaroo pipeline – refer **Figure 3-3**), and overall the project footprint is dominated by exotic grasses including Serrated Tussock (*Nasella trichotoma*) and Phalaris (*Phalaris* sp.). Given the existing site conditions, history of disturbance along the construction corridor (i.e. construction of the Amaroo pipeline and regular slashing), highly degraded nature of remaining vegetation present on site and minimal amount of native vegetation removal required, it is unlikely that this species persists within the construction corridor and will be impacted as a result of the proposed works.

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Figure 3-3: Aerial imagery showing evidence of prior disturbance along the alignment during the construction of the Amaroo pipeline in 2017 (NearMap, 2025). Red line indicates Aurora NDW project footprint outside the MSA area.

3.1.5.2 Melbourne Strategic Assessment (Environment Mitigation Levy) Act 2020 (State)

The Melbourne Strategic Assessment (MSA) is a strategic assessment approved under the EPBC Act. Any area covered by the MSA has a streamlined process for approvals as impacts to MNES associated with the expanded Urban Growth Boundary have been assessed. DEECA (formally DELWP) have allocated 'Conservation Areas' which are to be preserved as development progresses and there are blanket offset requirements for MNES when working in the MSA - known as MSA levy payments. As of 1 July 2020, exemptions for MSA levy payments apply only to specific "levy event" triggers where MNES occur on *private land* within the MSA (DEECA, 2025c). Utility infrastructure (including infrastructure for water) is not classified as a "levy event". Therefore, any future YVW infrastructure construction works on private land, associated with water distribution (e.g. water mains and pumping stations) are likely to be exempt from MSA levy payments. MSA levy payments are only applicable within the MSA Levy Area Boundary and do not apply within Conservation Areas.

The proposed works may still trigger the liability to pay an MSA levy within the MSA area, for the following Levy events:

- Issue of a Statement of Compliance for a plan of subdivision (i.e. subdivision of land).
- Application for a building permit.
- Approval of a work plan or variation of a work plan under the Mineral Resources (sustainable Development) Act 1990.
- Consideration and review as part of a planning; and

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- Construction of a road on Crown land

A search of the MSA MapShare has indicated that the only Crown Land within the construction corridor is the Merri Creek corridor (see **Figure 3-4**) which falls within Conservation Area 34. As such, no MSA Levy is applicable for the proposed works. Additionally, there are to be no impacts to the Merri Creek (Crown Land) as the alignment will be constructed trenchlessly under the creek.

The Biodiversity Conservation Strategy (BCS) for Melbourne Growth Corridors was developed under obligations outlined in the MSA. The BCS provides the strategy for biodiversity protection within Victoria's growth corridors and addresses all MNES listed under the EPBC. The BCS has listed Merri Creek as a Conservation Area (CA) due to the presence of Growling Grass Frogs (DEPI, 2013) (see **Figure 3-4** for mapping of conservation areas within the alignment). This includes mapping of Growling Grass Frog Areas of Strategic Importance, which act to define areas where existing and potential Growling Grass Frog habitat are to be protected.

Works associated with the Aurora to Bald Hill NDW Main, specifically at the Merri Creek crossing (Conservation Area 34) trigger the requirement of Works in a Conservation Area (WICA) approval from DEECA. As a part of the permit application, a Construction Environmental Management Plan (CEMP) must be prepared, submitted, and approved by DEECA outlining the following:

- implementation and delivery of conservation area fencing (adequate for preventing Growling Grass Frogs entering the areas of work)
- mitigation measures that will be implemented to protect the biodiversity values outlined for each Conservation Area (e.g., protection fencing, sediment and erosion control, etc.)
- plans for the re-habilitation of conservation areas impacted by the proposed works

The majority of the construction corridor falls within the Melbourne Strategic Assessment (MSA) area (see **Figure 3-4**). More detailed MSA mapping showing MSA mitigation areas, scattered trees, Conservation Areas and other planning permit information is attached in **Appendix G**.

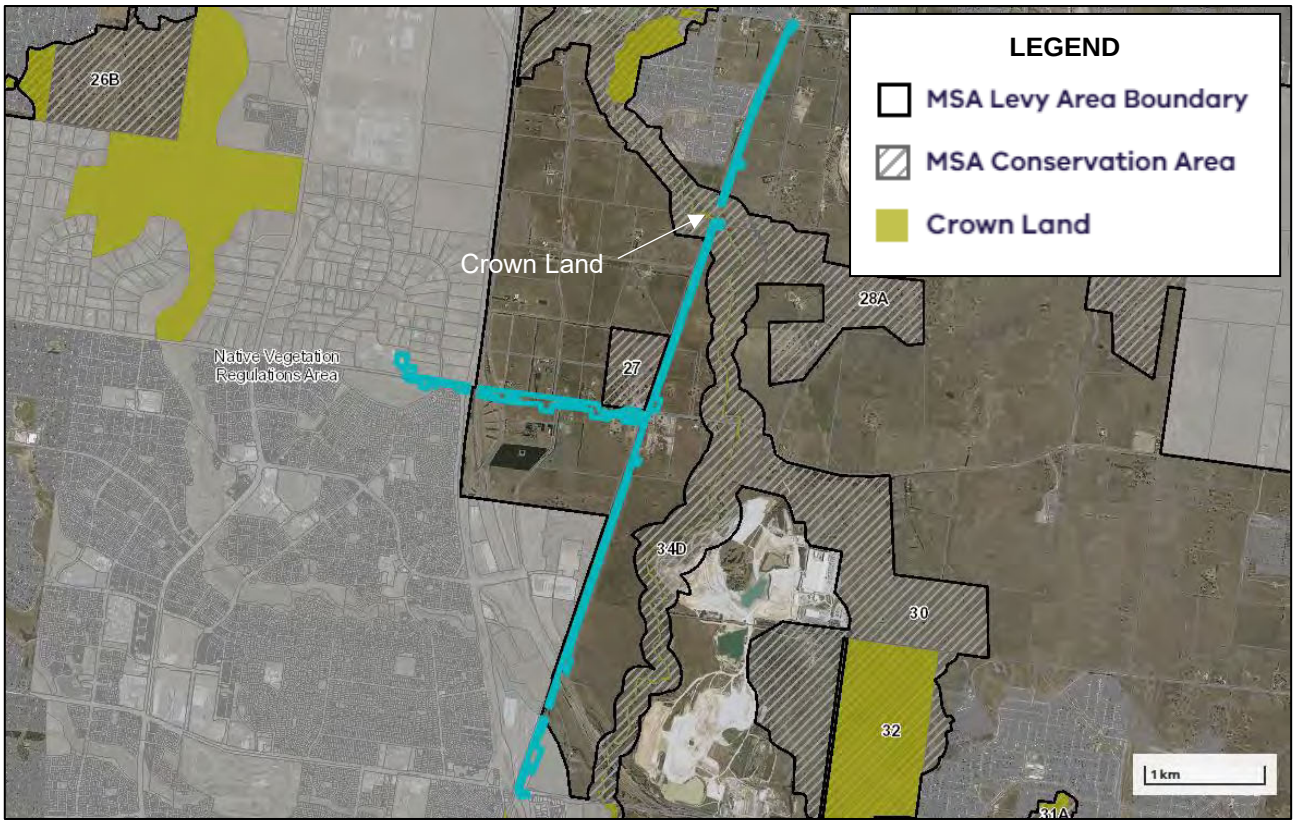

Figure 3-4: Areas of the construction corridor covered by the MSA, including defined Conservation Areas (DEECA, 2025d). See Appendix G for detailed mapping of MSA related areas.

Additional salvage and translocation requirements have been triggered for the project as part of the MSA program. MSA MapShare has indicated that the construction corridor falls within areas labelled as 'Potential

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Salvage Operations' for Matted Flax-lily. As such, a 'Salvage Enquiry Form' is to be completed and submitted to DEECA. DEECA will arrange to conduct any potential salvage operations at no cost to the landowner; however, will require access to the land.

Please note: It is our understanding through discussions with DEECA (Polly Edwards and Angela Muscatello, 2025), that the existing MSA program can be relied upon in respect to the VGED. The MSA program has committed to the preparation of a prescription for the conservation of the VGED. As part of the updated prescription, the Victorian Government has committed to conducting habitat assessment and targeted surveys in areas modelled as VGED habitat within the MSA Program area, which will be funded by the MSA Program. If the area of a project has been modelled as suitable habitat, DEECA will soon be seeking access to the subject land to undertake habitat assessments prior to a project commencing. If assessment cannot be completed prior to project commencement, DEECA will look to request inclusion of a planning permit condition that requires access to be granted to the land for DEECA to undertake the assessments. If no VGED are identified, no further action will be required. In the unlikely event that VGED is found, the State will consult with the Commonwealth to determine future management, and this may include management in-situ or translocation (consistent with the draft Grassland Earless Dragon Recovery Plan). Some sections of the proposed alignment are mapped within modelled VGED habitat (refer **Figure 3-5**). These sections have a history of disturbance (i.e. construction of the Amaroo pipeline and regular slashing), resulting in remaining vegetation being highly degraded in nature. Additionally, minimal native vegetation is present and/or requires removal to facilitate the proposed works. As such, it is unlikely that this species persists within the construction corridor and will be impacted as a result of the proposed works. Regardless, there is a chance that DEECA will request access to areas of the proposed alignment that are modelled as potential VGED habitat to conduct habitat assessments.



Figure 3-5: DEECA modelled Victorian Grasslands Earless Dragon (VGED) habitat. Red lines indicate project footprint.

Conservation Area 34 – Northern Growth Corridor: Growling Grass Frog Corridors

Conservation Area 34 (CA 34) is categorised as Growling Grass Frog conservation, floodplain and open space. A total of approximately 360m of the alignment, where the alignment crosses the Merri Creek corridor, falls within CA 34. However, 180m of the section of alignment is to be bored under Merri Creek and

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as such, will not be impacted. The key rationale for the protection of this area, is that it protects important populations of Growling Grass Frog and ensures connectivity between populations within the northern growth corridor. The protection of this area contributes to ensuring functioning sustainable populations of Growling Grass Frog with connectivity between populations. **Figure 3-4** above shows the location of Conservation Area 34 along the construction corridor.

*Please note: Conservation Area 27 is shown in the above mapping on the northern side of Summerhill Road (**Figure 3-4**) however, the construction corridor does not impact on this CA.*

Within conservation areas, DEECA has mapped out 'Areas of Strategic Importance', which have been designed to protect existing and potential Growling Grass Frog breeding habitat from disturbance. **Figure 3-6** below shows the Areas of Strategic Importance mapped along the construction corridor. An Area of Strategic Importance exists on the north side of the Merri Creek within the construction corridor. This area is currently a cleared agricultural paddock, however DEECA may have intentions to establish a new wetland location connected to known Growling Grass Frog habitat in the Merri Creek in the future. Early consultation with DEECA was undertaken during the functional design of the project to determine if the proposed works would interfere with the intended land use as Growling Grass Frog habitat. It was determined through advice given by the DEECA representative (Angela Muscatello, DEECA, July 2025) that the temporary disturbance associated with the proposed works and design would not interfere with the intended land use under the MSA.

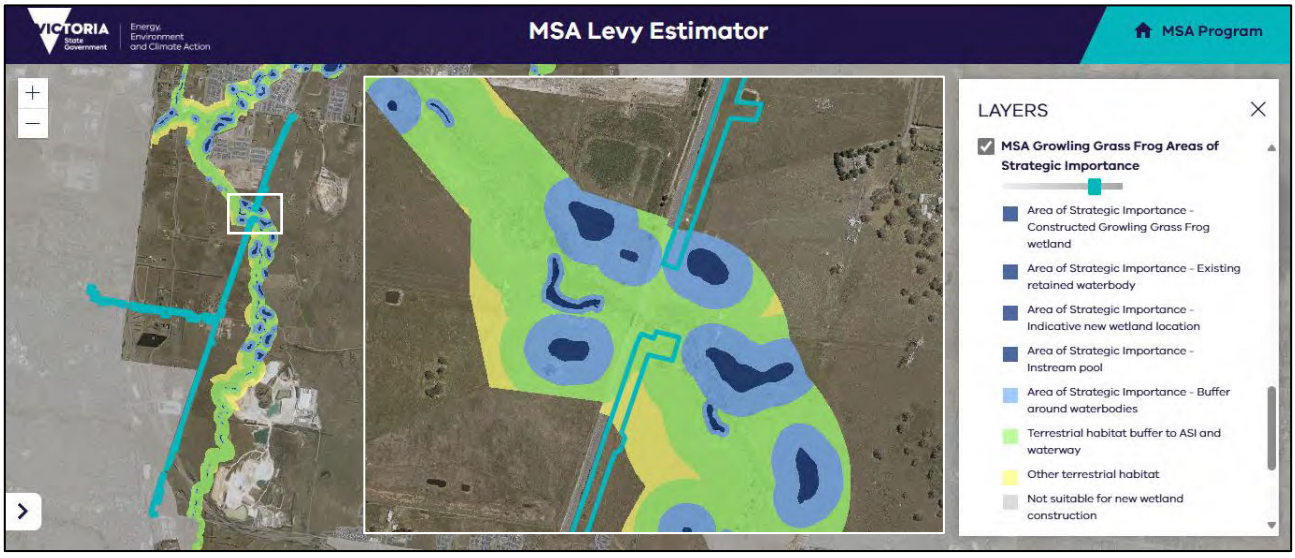

Figure 3-6: Areas of the construction corridor that intersect with MSA Growling Grass Frog Areas of Strategic Importance (DEECA, 2025d). Inset (middle) shows the crossing of Merri Creek, with an Area of Strategic Importance located within the construction corridor on the north side of the creek.

3.1.5.3 Catchment and Land Protection Act 1994 (State)

The *Catchment and Land Protection Act 1994* (CALP Act) is the main piece of legislation covering noxious weed and pest animal management in Victoria. Under the Act, all landowners have legal obligations to manage declared noxious weeds and pest animals on their land.

The Act outlines four categories of 'noxious weeds':

- Prohibited weeds
- Regionally prohibited weeds
- Regionally controlled weeds
- Restricted weeds

The project area is within the jurisdiction of the Melbourne Water Catchment Management Authority (MWCMA). Weeds of national significance (WoNS) listed under the CaLP Act (Agriculture Vic, 2017) and DEECA listed weeds (DELWP, 2018) recorded during site inspections, which are either regionally prohibited, regionally controlled or WoNS are listed in **Table 5** below.

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Table 5: CaLP listed noxious weeds (Agriculture Victoria, 2017)

Scientific Name	Common Name	Under CaLP Act	Weed of National Significance (WON) Y/N
Cirsium vulgare	Spear Thistle	C	N
Cynara cardunculus	Artichoke Thistle	C	N
Echium plantagineum	Patersons Curse	C	N
Juncus acutus	Spiny Rush	C	N
Lycium ferocissimum	African Boxthorn	C	N
Marrubium vulgare	Horehound	C	N
Nasella neesiana	Chilean Needle Grass	R	Y
Nassella trichotoma	Serrated Tussock	C	Y
Onopordum acanthium	Scotch Thistle	P	N
Rosa rubiginosa	Sweet Briar	C	N
Rubus fruticosus spp. agg.	Blackberry	C	Y
Silybum marianum	Variegated Thistle	C	N
Ulex europaeus	Gorse	C	Y
Watsonia meriana	Watsonia	C	N

CaLP Act: P – Regionally Prohibited, C – Regionally Controlled, R - Restricted

Mitigation measures should be outlined within a project CEMP and put in place during construction, to avoid the spread of listed noxious weeds and avoid the introduction of new weed species into the project area.

3.1.5.4 Environmental Effects Act 1978 (State)

Under Victoria's *Environment Effects Act 1978 (EE Act)*, projects that could have a 'significant effect' on Victoria's environment can potentially require an Environment Effects Statement (EES). This Act applies any public works 'reasonably considered to have or be capable of having a significant effect on the environment'. The Minister for Planning and Environment (the 'Minister') is the responsible person for assessing whether this Act applies.

A project is to be referred to the 'Minister' if the project triggers one individual potential environmental effect or a combination of referral criteria specified in the 'Ministerial Guidelines for assessment of environmental effects under the Environment Effects Act 1978' (Ministerial Guidelines) (DTP, 2023).

The following biodiversity referral criteria of potential adverse effects are considered most relevant to water infrastructure:

Individual potential environmental effects on the environment that might be of regional or State significance:

- potential clearing of 10 ha or more of native vegetation from an area that:
  - » is of an Ecological Vegetation Class identified as endangered by DEECA;
  - » is, or is likely to be, of very high conservation significance and
  - » is not authorised under an approved Forest Management Plan or Fire Protection Plan
- potential long-term loss of a significant proportion (e.g. 1 to 5 percent depending on the conservation status of the species) of known remaining habitat or population of a threatened species within Victoria

Combination of potential environmental effects on the environment that might be of regional or State significance:

- potential clearing of 10 ha or more of native vegetation, unless authorised under an approved Forest Management Plan or Fire Protection Plan
- matters listed under the Flora and Fauna Guarantee Act 1988:

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  - » potential loss of a significant area of a listed ecological community; or
  - » potential loss of a genetically important population of an endangered or threatened species (listed or nominated for listing), including as a result of loss or fragmentation of habitats; or
  - » potential loss of critical habitat; or
  - » potential significant effects on habitat values of a wetland supporting migratory bird species
- potential extensive or major effects on landscape values of regional importance, especially were recognised by a planning scheme overlay or within or adjoining land reserved under the National Parks Act 1975

Before commencing any public works to which this Act applies, the proponent must initiate an EES to be prepared and submitted to the Minister for the Minister's assessment of the environmental effects of the works. If an EES is required, other environmental approvals such as a planning permit application or an FFG Act permit cannot be approved until the EES is completed.

Given the existing site conditions, history of disturbance along the construction corridor, highly degraded nature of the native vegetation present on site and minimal amount of native vegetation removal required, none of the above listed referral criteria are triggered. As such, it is considered that approval under the EE Act is not required for the project.

3.1.5.5 Flora and Fauna Guarantee Act 1988 (Amendment Act 2019) (State)

The *Flora and Fauna Guarantee Act 1988* (FFG Act) is the key piece of Victorian legislation for the conservation of threatened species and communities and for the management of potentially threatening processes.

The FFG Act has been amended to strengthen the protection of Victoria's biodiversity, with the *Flora and Fauna Guarantee Amendment Act 2019* (the Amendment Act) coming into effect on 1st June 2020. The amendment provides a consistent national approach to assessing and listing threatened species. Protected Flora Permits are required under the FFG Act, if impacts to protected flora are to occur on public land. Public land is defined under the FFG Act as "*Crown land or land owned by, or vested in, a public authority*". "Protected Flora" is defined as:

- Plants which are listed as threatened under the FFG Act.
- Plants belonging to communities on the Threatened List when they occur within a patch of that community.
- Any 'declared' protected plant by the Governor in Council under section 46 of the Act.

In many circumstances, it is an offence to 'take' (meaning kill, injure, disturb or collect), trade, keep, move, or process protected flora without a permit, license or authorisation, however protected flora controls do not apply on private land unless permission has been obtained from the landowner. The removal of planted vegetation also does not trigger the need for an FFG Act Permit.

'Taking' protected flora includes taking part of a plant (flowers, seeds, cuttings). The Act was amended in May 2024 which altered the definition of 'protected flora' and the requirements for a permit. The Act distinguishes between three different types of 'take':

- **Incidental take** - is where plants are taken to make space for something else – for example, clearing for the construction or maintenance of a building, road, or pipeline; clearing for grazing or cropping; or clearing to construct bushfire fuel break. Any take where the intent is not to obtain a specimen of the plant, but to simply remove it, is incidental take.
- **Take for sale** - includes take for the purpose of making the plant available for sale, regardless of whether it has actually been sold.
- **Take for personal use** - includes any other reason for obtaining a specimen of the plant – for example, to collect or propagate, for use as food or fibre, for research or display.

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The Act provides two different categories for declared flora – 'generally protected flora' and 'restricted use protected flora'. The permit requirements for the above listed types of 'take' differ for each of these categories and are outlined in **Table 6** below.

Table 6: Permit requirements for 'take' types of 'generally protected flora' and 'restricted use protected flora'.

'Take' Type	Generally Protected Flora	Restricted Use Protected Flora
Incidental Take	Permit Required	Permit Not Required
Take For Sale	Permit Required	Permit Required
Take For Personal Use	Permit Required	Permit Required

Impacts to any FFG species associated with the proposed Utility Infrastructure works are considered "Incidental Take" under the Act.

A search for FFG Act listed fauna species recorded within 5km using DEECA's VBA online database (DEECA, 2025g) found sixteen fauna species listed under the Act (refer to **Table 3**), with three being listed as critically endangered. Thirty-two flora species recorded within 5km are listed under the FFG Act (refer to **Table 4**), with ten listed as critically endangered.

Although 13 FFG protected flora species were recorded within the project area during the site assessments, many of these species are not naturally occurring and as such have been determined as planted (refer to **Appendix B** for a full list of flora species). Additionally, many of the species have been avoided through alterations to the alignment and construction corridor over the course of design. As such, only the following FFG listed flora species that trigger a permit for removal are to be impacted by the proposed works (**Table 7**):

Table 7: FFG protected flora species impacted by the proposed works

Scientific Name	Common Name	FFG Protection/Status
Eucalyptus xstudleyensis	Studley Park Gum	Critically Endangered
Rhagodia parabolica	Fragrant Saltbush	Threatened

Additionally, two FFG Act threatened ecological communities were noted during the site assessments, with parts of each of the ECs occurring on public land (YVW easement) being impacted (HZ1, HZ2a, HZ3 and HZ7). This includes 'Westen (Basalt) Plains Grasslands Community' (synonymous with EVC132 Plains Grassland - HZ5, HZ6 and HZ8) and 'Western Basalt Plains (River Red Gum) Grassy Woodland Community' (synonymous with EVC 55 Plains Grassy Woodland - HZ1, HZ2a/b, HZ3, HZ4 and HZ7). The parts of these FFG Act threatened ecological communities that occur on private land do not require a permit for removal. Instead, landowner consent is required for their removal. This is to be gained prior to commencement of construction.

As such, an FFG Act "Permit to remove protected flora" is required for the project for the removal of four Fragrant Saltbush (*Rhagodia parabolica*) individuals, one Studley Park Gum (*Eucalyptus xstudleyensis*), 0.318 ha of 'Westen (Basalt) Plains Grasslands Community' and 0.126 ha of 'Western Basalt Plains (River Red Gum) Grassy Woodland Community'.

Refer to Environmental Mapping located in **Appendix A** for locations of these species and Habitat Zones.

3.1.5.6 Planning and Environment Act 1987 (State)

Statutory planning is the way local governments enforce the provisions of the *Planning and Environment Act 1987*, which was introduced by the State Government to ensure that development in Victoria occurs in an orderly and sustainable manner.

The project is located within the Hume (west) and Whittlesea (east) Council jurisdictions, delineated by the Merri Creek and is subject to their respective Planning Schemes (DTP, 2025a) (DTP, 2025c). Given the Project encompasses land used for a utility installation comprising water mains, the works are considered a 'minor utility installation', as defined under Clause 73.03 – Land Use Terms of the Hume and Whittlesea Planning Schemes (refer **Table 9**).

Figure 8-7 illustrations the locations of the Precinct Structure Plan areas and **Appendix D** shows the locations of the Overlays applicable to the assessment area.

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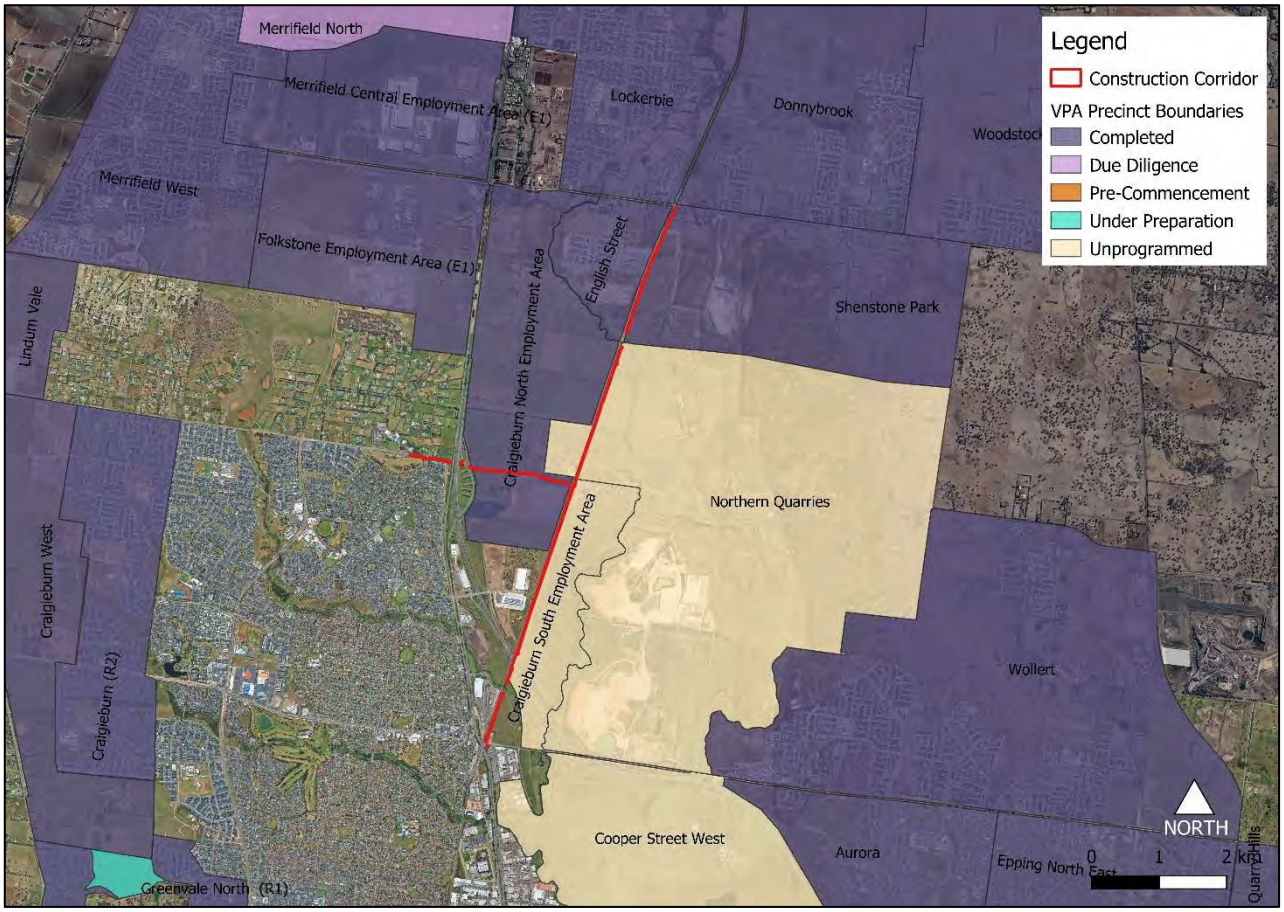

Figure 3-7: PSP Areas (VPA, 2024). Please note: The figure shows indicative alignment as at 15.11.2024.

Table 9 and **Table 10** below cover the overlays and particular provisions which trigger a planning permit for vegetation removal, relevant to the proposed works (DTP, 2025b).

Refer to **Appendix D** for detailed figures showing the overlays relevant to vegetation removal.

Further detailed planning permit requirements under the *Planning and Environment Act 1987*, as well as applicable planning policies, are covered in the 'Aurora to Bald Hill NDW Main – Stage 1 Detailed Design – Planning and Approvals Assessment' (Ripple JV, 2025).

As indicated in **Section 3.1.5**, much of the construction corridor falls within the MSA area. Four registered Precinct Structure Plan (PSP) areas under the MSA intersect with the alignment, of which two have completed PSPs with associated Native Vegetation Retention and Removal Plans (NVRRP) that are incorporated under the planning scheme:

- Craigieburn North Employment Area PSP - NVRRP (**Appendix G.1**)
- Shenstone Park PSP - NVRRP (**Appendix G.3**)

Two PSP areas that intersect with the alignment are unprogrammed and therefore do not have associated NVRRPs:

- Northern Quarries
- Craigieburn South Employment Area

Associated NVRRPs identify areas of significant flora, and habitat zones for EPBC listed fauna species outlined in **Section 3.1.5** of this report. They also outline vegetation and trees approved for removal or to be retained, as well as offset requirements for known tree and habitat zone removal. If native vegetation exists in areas to be impacted that is not marked as either "to be protected" or "can be removed" within an NVRRP, a planning permit for native vegetation removal may not be required (refer to the conditions under each NVRRP). PSPs with NVRRP's follow conditions outlined in Clause 52.17 – Native Vegetation if vegetation

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mapped as “can be removed” is to be impacted. All native vegetation to be removed within programmed PSP areas fall within areas mapped as “can be removed” and as such, Clause 52.17 – Native Vegetation applies.

The Guidelines for the removal, destruction or lopping of native vegetation

The Guidelines apply Victoria’s state-wide policy for the assessment and removal of native vegetation and are incorporated into the Victoria Planning Provisions and all planning schemes in Victoria. The objective of the Guidelines is to ensure that the three-step approach (avoid, minimise, offset) is implemented for native vegetation removal to achieve no net loss to biodiversity (DELWP, 2017). Removal of native vegetation is restricted to only what is reasonably necessary and appropriate compensation is required (DELWP, 2017). There are three assessment pathways for an application to remove native vegetation. These are:

- **Basic:** where there are limited impacts on biodiversity
- **Intermediate:** where there could be impacts to large trees, endangered EVCs, and sensitive wetlands and coastal areas
- **Detailed:** where there could be impacts on large trees, endangered EVCs, sensitive wetlands and coastal areas and the works could significantly impact on habitat for rare or threatened species.

Other factors which determine the pathway include location risk (Location 1, 2 or 3) and amount of vegetation to be removed. These pathways determine the information to be supplied with a planning permit to remove native vegetation and the decision guidelines applied when assessing the application (DELWP, 2017). For example, habitat hectare assessments are required for detailed assessment-based pathways and are to be undertaken by a qualified assessor.

Refer to **Table 8** for a summary on the determination of the assessment pathway and **Figure 3-8** for a DEECA generated map detailing the location risk.

Table 8: Determination of the assessment pathway for an application for native vegetation removal (DELWP, 2017)

Extent of native vegetation	Location Category		
	Location 1	**Location 2**	**Location 3**
Less than 0.5 hectares and not including any large trees	Basic	Intermediate	Detailed
Less than 0.5 hectares and including one or more large trees	Intermediate	Intermediate	Detailed
0.5 hectares or more	Detailed	Detailed	Detailed

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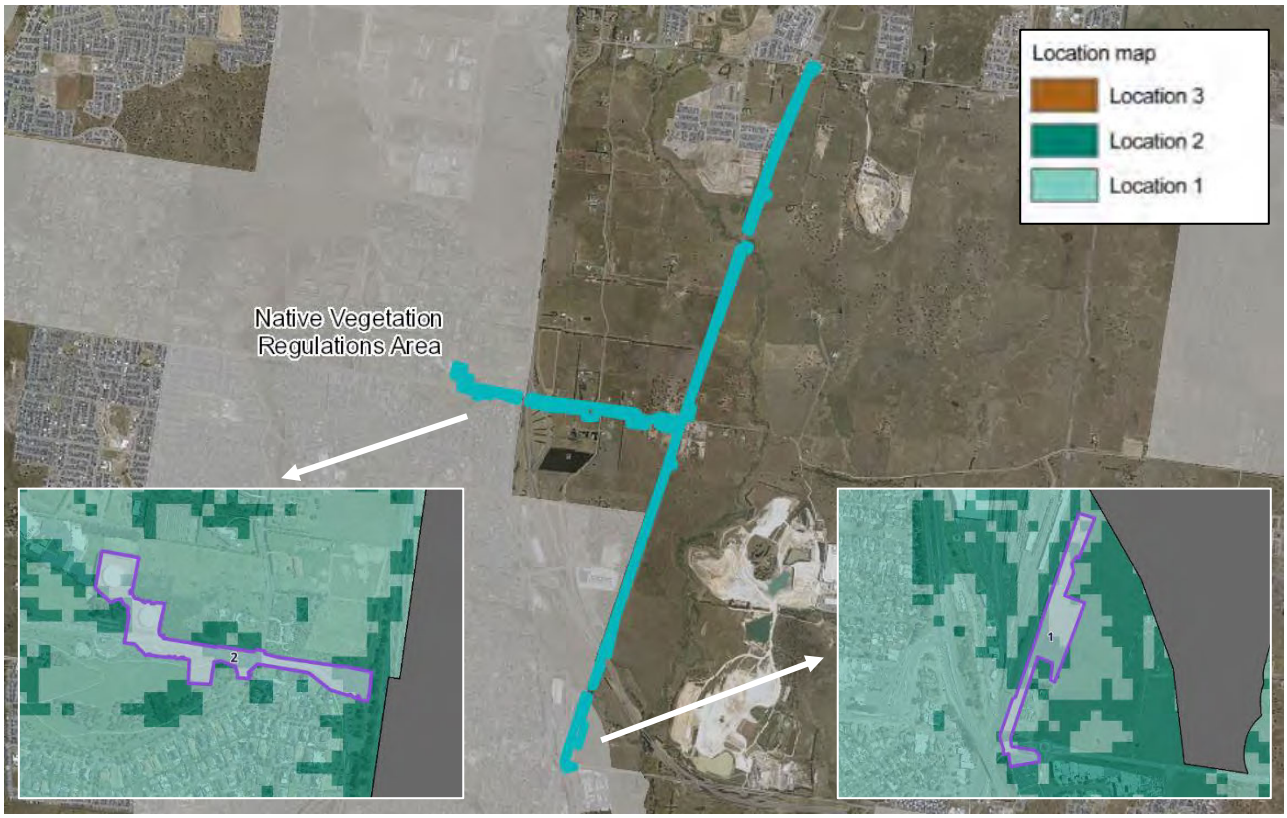

Figure 3-8: Map of the alignment showing excerpts of areas where Native Vegetation Regulations are enacted and their associated Native Vegetation Risk Location categories (DEECA, 2025f).

As seen in **Figure 3-8** above, much of the proposed alignment falls within the MSA area. Some of the associated PSPs within the MSA areas do not have incorporated NVPPs under the planning schemes. Additionally, all native vegetation to be impacted in programmed PSP areas is marked as 'can be removed' within the associated NVPP. As such, native vegetation removal procedures under Clause 52.17 apply.

As Utility Installation on private land is not classified as a "levy event", no MSA levies are applicable for the project under Clause 52.17.

As much of the proposed alignment falls within the MSA area, the extent of native vegetation removal was sent to DEECA to quantify losses (refer DEECA generated NVR Report attached in **Appendix H**). It was determined by DEECA that the mapped Location Risk for the construction corridor includes areas of Location Risk 1, 2 and 3 vegetation. However, vegetation removal of only Location Risk 1 and 2 vegetation is required for the project. A total amount of 0.444 ha of native vegetation removal is required to facilitate the proposed works, including no large trees. As such, the assessment follows the 'Intermediate' pathway, with habitat hectare assessment not being required.

As the proposed native vegetation removal is under 0.5 ha, the *Procedure to rely on the utility installations exemption in planning schemes: Water service providers* (DELWP, 2020) is applicable. However, if the project triggers a planning permit under another Clause of the relevant Planning Scheme, it would not be advantageous to utilise the Procedure.

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Planning Scheme Requirements Relating to Vegetation Removal

Table 9: Summary of relevant environmental planning permit requirements relating to flora and fauna that may be triggered within the project area.

Planning Scheme (PS)	Hume, Whittlesea
Use Classification for proposed YVW infrastructure under Clause 73.03 of PS	The works are considered a 'minor utility installation', as defined under Clause 73.03 – Land Use Terms of the Hume and Whittlesea Planning Schemes: A 'minor utility installation' (MUI) - Land used for a utility installation comprising any of the following: • Sewerage or water mains
Relevant Overlays Relating to Native Vegetation	**Hume –** Environmental Significance Overlays (ESO2, ESO10), Public Acquisition Overlays (PAO2, PAO4). **Whittlesea -** Environmental Significance Overlays (ESO3, ESO4, ESO6), Incorporated Plan Overlay (IPO8), Public Acquisition Overlay (POA9)
Particular Provisions Relating to Native Vegetation	Clause 52.17 – Native Vegetation

Refer to **Table 10** below for a more detailed summary of the relevant overlays and particular provisions which trigger a planning permit for vegetation removal, relevant to the proposed works.

Table 10: Planning permit requirements for any vegetation removal relating to the proposed works.

Planning control	Permit required for Vegetation Removal Whittlesea	Hume	Justification
Environment and Landscape			
ESO2 – Environmental Significance Overlay ***Merri Creek and Moonee Ponds Creek and Environs***	N/A	**Yes**	Under Clause 42.01-2, a planning permit is required to remove, destroy, or lop any vegetation, including dead vegetation unless a schedule to the ESO or the table of exemptions specifically states that a permit is not required, or the removal, destruction or lopping of native vegetation is in accordance with a native vegetation precinct plan specified in a schedule to Clause 52.16. Under the ESO2, exemptions considered potentially applicable to the Project include: Clause 42.01-3 (Table of exemptions) • If the vegetation presents an immediate risk of personal injury or damage to property. • Vegetation that is a noxious weed subject of a declaration under section 58 or section 58A of the *Catchment and Land Protection Act 1994*. This exemption does not apply to Australian Dodder (*Cuscuta australis*). • Vegetation that is to be impacted that was either planted or grown as a result of direct seeding for Crop raising or Grazing animal production. Vegetation that is to be impacted that has naturally established or regenerated on land lawfully cleared of naturally established vegetation and is bracken (*Pteridium esculentum*). Schedule 2 to Clause 42.01 • Vegetation that is not native.

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Planning control	Permit required for Vegetation Removal Whittlesea	Hume	Justification
			A scattered *Juncus* sp. individual was recorded within the construction footprint within the ESO2 area. This individual will trigger a permit for removal under ESO2.
ESO3 – Environmental Significance Overlay ***Merri Creek and Environs***	**Yes**	N/A	Under Clause 42.01-2, a planning permit is required to remove, destroy, or lop any vegetation, including dead vegetation unless a schedule to the ESO or the table of exemptions specifically states that a permit is not required, or the removal, destruction or lopping of native vegetation is in accordance with a native vegetation precinct plan specified in a schedule to Clause 52.16. Under the ESO3, exemptions considered potentially applicable to the Project include: Clause 42.01-3 (Table of exemptions) • Vegetation that is a noxious weed subject of a declaration under section 58 or section 58A of the *Catchment and Land Protection Act 1994*. This exemption does not apply to Australian Dodder (*Cuscuta australis*). • Vegetation that is to be impacted that was either planted or grown as a result of direct seeding for Crop raising or Grazing animal production. • Vegetation that is to be impacted that has naturally established or regenerated on land lawfully cleared of naturally established vegetation and is bracken (*Pteridium esculentum*). Schedule 3 to Clause 42.01 • A non-indigenous tree that has the capacity to adversely affect stream flow • Removal of an environmental weed • The control or removal of non-indigenous plants in preparation for revegetation works • Pruning of plants to maintain access or maintain a plant's horticultural health Vegetation within the ESO3 area consists predominantly of exotic agricultural grasses or weeds (exempt), however scattered native grasses including *Rytidosperma* spp.) and Spear Grass (*Stipa* spp.) exist at low density. As such, a permit for vegetation removal is required under ESO3.
ESO4 – Environmental Significance Overlay ***Rural Conservation Area***	**Yes**	N/A	Under Clause 42.01-2, a planning permit is required to remove, destroy, or lop any vegetation, including dead vegetation unless a schedule to the ESO or the table of exemptions specifically states that a permit is not required, or the removal, destruction or lopping of native vegetation is in accordance with a native vegetation precinct plan specified in a schedule to Clause 52.16. Under the ESO4, exemptions considered potentially applicable to the Project include: Clause 42.01-3 (Table of exemptions) • Vegetation that is a noxious weed subject of a declaration under section 58 or section 58A of the *Catchment and Land Protection Act 1994*. This exemption does not apply to Australian Dodder (*Cuscuta australis*). • Vegetation that is to be impacted that was either planted or grown as a result of direct seeding for Crop raising or Grazing animal production. • Vegetation that is to be impacted that has naturally established or regenerated on land lawfully cleared of naturally established vegetation and is bracken (*Pteridium esculentum*). Schedule 4 to Clause 42.01 • Vegetation that is not native. • Vegetation that is a plant proclaimed as a weed under the *Catchment and Land Protection Act 1994*.

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Planning control	Permit required for Vegetation Removal Whittlesea	Hume	Justification
			• Vegetation that was planted or grown for aesthetic or amenity purposes, including agroforestry (the simultaneous and substantial production of forest and other agricultural products from the same land unit), shelter belts, woodlots, street trees, gardens or the like. This exemption does not apply if public funding was provided to assist in planting or managing the vegetation for conservation. Vegetation within the ESO4 area consists predominantly of exotic agricultural grasses or weeds (exempt), however scattered native grasses including *Rytidosperma* spp.) and Spear Grass (*Stipa* spp.) exist at low density. As such, a permit for vegetation removal is required under ESO4.
ESO6 – Environmental Significance Overlay ***Urban Conservation Area***	**Yes**	N/A	Under Clause 42.01-2, a planning permit is required to remove, destroy, or lop any vegetation, including dead vegetation unless a schedule to the ESO or the table of exemptions specifically states that a permit is not required, or the removal, destruction or lopping of native vegetation is in accordance with a native vegetation precinct plan specified in a schedule to Clause 52.16. Under the ESO6, exemptions considered potentially applicable to the Project include: Clause 42.01-3 (Table of exemptions) • Vegetation that is a noxious weed subject of a declaration under section 58 or section 58A of the *Catchment and Land Protection Act 1994*. This exemption does not apply to Australian Dodder (*Cuscuta australis*). • Vegetation that is to be impacted that was either planted or grown as a result of direct seeding for Crop raising or Grazing animal production. • Vegetation that is to be impacted that has naturally established or regenerated on land lawfully cleared of naturally established vegetation and is bracken (*Pteridium esculentum*). Schedule 6 to Clause 42.01 • Vegetation that is a plant proclaimed as a weed under the *Catchment and Land Protection Act 1994*. • Vegetation that was planted or grown for aesthetic or amenity purposes, including agroforestry (the simultaneous and substantial production of forest and other agricultural products from the same land unit), shelter belts, woodlots, street trees, gardens or the like. This exemption does not apply if public funding was provided to assist in planting or managing the vegetation for conservation. • To maintain an existing fence where the removal of vegetation is within a combined maximum width of 4 metres either side of the fence. Vegetation within the ESO6 area consists predominantly of exotic agricultural grasses or weeds (exempt), however scattered native grasses including *Rytidosperma* spp.) and Spear Grass (*Stipa* spp.) exist at low density. As such, a permit for vegetation removal is required under ESO6.

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Planning control	Permit required for Vegetation Removal Whittlesea	Hume	Justification
ESO10 – Environmental Significance Overlay ***Rural Conservation Area***	N/A	**Yes**	Under Clause 42.01-2, a planning permit is required to remove, destroy, or lop any vegetation, including dead vegetation unless a schedule to the ESO or the table of exemptions specifically states that a permit is not required, or the removal, destruction or lopping of native vegetation is in accordance with a native vegetation precinct plan specified in a schedule to Clause 52.16. Under the ESO10, exemptions considered potentially applicable to the Project include: Clause 42.01-3 (Table of exemptions) • Vegetation that is a noxious weed subject of a declaration under section 58 or section 58A of the *Catchment and Land Protection Act 1994*. This exemption does not apply to Australian Dodder (*Cuscuta australis*). • Vegetation that is to be impacted that was either planted or grown as a result of direct seeding for Crop raising or Grazing animal production. • Vegetation that is to be impacted that has naturally established or regenerated on land lawfully cleared of naturally established vegetation and is bracken (*Pteridium esculentum*). Schedule 10 to Clause 42.01 • Vegetation that is a plant proclaimed as a weed under the *Catchment and Land Protection Act 1994*. • Vegetation that was planted or grown for aesthetic or amenity purposes, including agroforestry (the simultaneous and substantial production of forest and other agricultural products from the same land unit), shelter belts, woodlots, street trees, gardens or the like. This exemption does not apply if public funding was provided to assist in planting or managing the vegetation for conservation. • To maintain an existing fence where the removal of vegetation is within a combined maximum width of 4 metres either side of the fence. A large portion of the alignment between Summerhill Rd and the Merri Creek falls within ESO10. This section contains a range of scattered native species, present at low density (refer to mapped species and numbers in Environmental Mapping attached in **Appendix A**). As such, a permit for vegetation removal is required under ESO10.
Heritage and Built Form			
IPO8 – Incorporated Plan Overlay ***Shenstone Park Precinct Structure Plan***	**No**	N/A	There are no triggers relating to vegetation removal under the IPO8. However, under the Native Vegetation Retention and Removal Plan (NVRRP) of the PSP, scattered native vegetation within an area marked as “native vegetation area to be retained” is located within the construction corridor (just north of the Merri Creek). As NVRRPs are not considered incorporated plans under the Whittlesea planning scheme, this scattered native vegetation triggers a permit under Clause 52.17 (refer to Clause 52.17 below). As the works are to be carried out on land near or abutting a Conservation Area (Conservation Area 34), the preparation of a CEMP is required for the project, to reduce impacts to these Conservation Areas.
Other Overlays			

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Planning control	Permit required for Vegetation Removal Whittlesea	Hume	Justification
PAO2 – Public Acquisition Overlay ***Hume City Council - Road construction and widening***	N/A	**Yes**	Under Clause 45.01-1, a planning permit is required to damage, remove, destroy, or lop any vegetation unless specified in a schedule to this overlay. Applicable exemptions include: • Is a crop/pasture species • For electric line clearance • If the vegetation poses a risk of injury or damage to property. • To an authority or a municipal council if the responsible authority, after consulting with the acquiring authority for the land, is satisfied that any of the above matters for which a permit is required is consistent with the purpose for which the land is to be acquired. Multiple small, planted street trees are to be impacted within the PAO2 sections of the alignment (along Mt Ridley Rd). As such, a planning permit for vegetation removal within the PAO2 is required as YVW are not the acquiring authority. Consultation with Hume City Council is recommended to determine if any further exemptions may apply.
PAO4 – Public Acquisition Overlay ***Yarra Valley Water - Amaroo and Lockerbie Main Sewer Project***	N/A	**No**	Under Clause 45.01-1, a planning permit is required to damage, remove, destroy, or lop any vegetation unless specified in a schedule to this overlay. Applicable exemptions include: • To the acquiring authority for the land if the land has been acquired and if any of the above matters for which a permit is required is consistent with the purpose for which the land was acquired. The need to obtain a planning permit does not apply as YVW has acquired the land and the use is consistent with the acquisition purpose (minor utility works). As such, a permit is not required under the PAO4 for the project.
PAO9 – Public Acquisition Overlay ***Yarra Valley Water - Amaroo and Lockerbie Main Sewer Project***	**No**	N/A	Under Clause 45.01-1, a planning permit is required to damage, remove, destroy, or lop any vegetation unless specified in a schedule to this overlay. Applicable exemptions include: • To the acquiring authority for the land if the land has been acquired and any of the above matters for which a permit is required is consistent with the purpose for which the land was acquired. The need to obtain a planning permit does not apply as YVW has acquired the land and the use is consistent with the acquisition purpose (minor utility works). As such, a permit is not required under the PAO9 for the project.
Particular Provisions			

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Planning control	Permit required for Vegetation Removal Whittlesea	Hume	Justification
Clause 52.17 Native Vegetation	**Yes**	**Yes**	Pursuant to Clause 52.17-1, a permit is required to remove, destroy, or lop native vegetation, including dead native vegetation (unless an exemption applies). 52.17-7 Table of Exemptions outlines exemptions relating to removal, destruction and lopping of native vegetation. Applicable exemptions include: • Utility Installations: Native vegetation that is to be removed, destroyed or lopped to the minimum extent necessary by or on behalf of a utility service provider to maintain or construct a utility installation in accordance with the written agreement of the Secretary to DEECA. YVW has a written agreement with DEECA to use this exemption. Importantly, this exemption can only be used where additional requirements as outlined in the Procedure to rely on the utility installations exemption in planning schemes including: - Water service providers conditions (DELWP, 2020) are met, including the native vegetation removal being less than 0.5 ha in total and following the Exempt Project Endorsement Form process. • Planted vegetation that is to be removed, destroyed or lopped that was either planted or growth as a result of direct seeding. This exemption does not apply to native vegetation planted or managed with public funding for the purpose of land protection or enhancing biodiversity unless the removal, destruction or lopping of the native vegetation is in accordance with written permission of the agency (or its successor) that provided the funding. • Land shown as UGZ8 for all native vegetation in the levy area within the meaning of the *Melbourne Strategic Assessment (Environmental Mitigation Levy) Act 2022*, does not require a permit to impact vegetation. This does not apply to the scattered trees and native vegetation identified as 'to be retained' on Plan 6 of the Craigieburn North Employment Area PSP. The Project Area does not overlap with the conservation areas on Plan 6 in the PSP; therefore, a permit is not required to impact native vegetation under Clause 52.17 within the UGZ8. As much of the construction corridor within the MSA area falls within unprogrammed PSP areas, native vegetation removal procedures under Clause 52.17 apply. A total of 0.444 ha of native vegetation is to be impacted by the proposed works. As such, a planning permit for vegetation removal from Hume under Clause 52.17 and associated offset requirements apply for the project. Native vegetation triggering a planning permit under Clause 52.17 under the Whittlesea Planning Scheme does not trigger offsetting, as scattered native vegetation does not require offsetting under 'The Guidelines'.

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3.1.5.7 Wildlife Act 1975 (State)

The *Wildlife Act 1975* is the primary legislation in Victoria providing for protection and management of wildlife. The Act requires people engaged in wildlife research (e.g., fauna surveys, salvage, and relocation activities) to obtain management authorisation under the Act to ensure these activities are undertaken appropriately and, in a manner, consistent with the controls. The purpose of the *Wildlife Act 1975* is to establish processes to protect and conserve wildlife, prevent extinction, and provide for the sustainable use and access to wildlife. Additionally, the Act prohibits and regulates activities relating to wildlife. This includes requiring a licence to capture, handle, relocate or temporarily house wildlife.

Multiple hollow bearing trees, nests and potential fauna habitat including that of regionally and federally listed fauna species were observed along the construction corridor. Management authorisation under the Act is required for the removal of any potential or existing fauna habitat along the pipeline corridor. For example, an ecologist/zoologist who holds management authorisation under the Act should be engaged to undertake a pre-construction check of hollows, trees, waterbodies (i.e. farm dams) and vegetation for fauna habitat if removal is required. If fauna habitat is confirmed, then an ecologist/zoologist who holds management authorisation under the Act should be present during removal/de-watering to assist with the relocation of displaced fauna or to transport fauna to a suitable facility (e.g., veterinary clinic).

3.2 Site Inspection

An initial preliminary site assessment was undertaken by two Ripple ecologists on the 22nd of March, 28th of March, 28th of April, 18th of May and 22nd of May 2023 to complete a preliminary assessment of the flora, fauna, and ecological communities within the originally proposed FD area, which extended from Potter Street, Craigieburn to the Wallan Recycled Water Treatment Plant (RWTP). **(Note: part of the alignment assessed during the preliminary assessment, Alignment 6 – between Wallan RWTP and Minton St, has been removed from the scope of works)**. A further site inspection was undertaken on the 1st – 3rd November 2023, to complete a detailed assessment of the flora and fauna habitat within the areas being taken to Detailed Design for the NDW pipeline between Aurora and Bald Hill Main (design dated 11.07.2023). Since the original detailed assessment was undertaken, updates to the associated construction corridor were made to allow for laydown areas. As such, an updated design was provided (dated 15.11.2024) and a further site inspection undertaken on the 20th of November 2024. Minor changes have since been made to the construction corridor (design dated 28.10.2025), however a further site visit was not necessary as all data for the adjusted areas had been previously captured. The detailed site inspection was primarily undertaken on foot, and focused on assessing any flora, fauna or ecological communities present within the construction corridor. The results of the assessment are outlined below. Detailed observations along the construction corridor are described in **Appendix C**.

3.2.1 Flora

The site assessments involved a detailed inspection of the vegetation present along the construction corridor. A total of 143 flora species were observed along the proposed alignment including 53 native and 76 exotic species. See **Appendix C** for a detailed description of each section of the construction corridor, **Appendix A** for Environmental Mapping and **Appendix B** for a full list of flora species observed across the assessment area and a Tree Table.

Much of the construction corridor is restricted to existing YVW freehold land consisting of predominantly managed exotic grasses including Kikuyu (*Pennisetum clandestinum)*, Paspalum (*Paspalum sp.)*, Phalaris (*Phalaris sp.)*, Rye Grass (*Lolium sp.)*, Serrated Tussock (*Nassella trichotoma)* and Veldt-Grass (*Ehrharta sp.)*. Areas of patch-quality native vegetation are present along the construction corridor (see Habitat Zones, HZs, mapped in Environmental Mapping in **Appendix A**) and are likely to be consistent with FFG listed threatened ecological communities. Scattered native flora including Wallaby Grass (*Rytidosperma sp.)* and native Rush (*Juncus spp.*) were also consistently present along much of the construction corridor, however, for the most part vegetation does not meet the benchmark to be classified as patch-quality native vegetation.

Multiple large, remnant Eucalyptus trees, as well as other native tree species occur within and in proximity to the construction corridor. These large old trees are significant within the landscape and are likely to provide critical habitat for terrestrial/arboreal fauna in the area. However, an arborist assessment has determined that many of these trees can be safely retained during construction provided mitigation measures as outlines within the Arborist Impact Assessment are adhered to (refer AIA attached in **Appendix I**). As such, it has

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been determined that the removal of 68 trees is required to facilitate the proposed works. Many of these trees are small native or planted individuals with moderate or lower retention value.

Refer to Environmental Mapping in **Appendix A** for locations of patch-quality native vegetation (HZs), trees, FFG protected species and CaLP listed species.

Vegetation Communities

Patch-quality native vegetation was observed at numerous sections along the pipeline alignment (see HZ locations in the Environmental Mapping included in **Appendix A**). Patch-quality native vegetation present is consistent with EVC 132 Plains Grassland (endangered) and/or EVC 55 Plains Grassy Woodland (endangered) EVCs.

FFG Listed Threatened Ecological Communities

Vegetation consistent with the following FFG listed threatened ecological communities were recorded along the proposed construction corridor:

- **Westen (Basalt) Plains Grasslands Community** – consistent with EVC132 Plains Grassland. Habitat zones mapped in the Environmental Mapping included in **Appendix A** that are indicative of this ecological community include HZ5, HZ6 and HZ8.

- **Western Basalt Plains (River Red Gum) Grassy Woodland Community** – consistent with EVC 55 Plains Grassy Woodland. Habitat zones mapped in the Environmental Mapping included in **Appendix A** that are indicative of this ecological community include HZ1, HZ2a/b, HZ3, HZ4 and HZ7.

FFG listed ecological communities only require a permit for impacts/removal under the Act when located within public land. As such, some of the habitat zones mentioned above only require a permit for a partial removal of the habitat zone.

EPBC Listed Threatened Ecological Communities

Vegetation consistent with EPBC listed threatened ecological communities was likely recorded along the proposed construction corridor, however formal classification of native vegetation was not undertaken for all habitat zones thought to be consistent with EPBC listed threatened ecological communities as they were located within an MSA area, and native vegetation classification has already been accounted for under the MSA. The listed threatened ecological communities likely recorded along the construction corridor included:

- **Grassy Eucalypt Woodland of the Victorian Volcanic Plains (Critically Endangered)** - consistent with EVC 55 Plains Grassy Woodland.

- **Natural Temperate Grassland of the Victorian Volcanic Plains (Critically Endangered)** - consistent with EVC132 Plains Grassland.

Two areas of Natural Temperate Grassland of the Victorian Volcanic Plains (HZ5 and HZ6) occur outside of the MSA; however, these patches will not be impacted by the proposed works. As the areas of patch-quality native vegetation likely consistent with EPBC listed threatened ecological communities within the MSA area have not been mapped as 'Vegetation to be retained' under an incorporated Native Vegetation Retention and Removal Plan (NVPP) under the relevant planning scheme, the vegetation does not require additional approval under the EPBC Act for impacts.

3.2.2 Fauna Species and Habitat

A total of 37 fauna species were observed along the pipeline alignment including 29 native and 8 exotic species. See **Appendix B** for a full list of fauna species observed.

Most of the fauna species observed during the site assessments were common urban bird species such as Australian Magpie (*Gymnorhina tibicen*), Crested Pigeon (*Ocyphaps lophotes)*, Noisy Miner (*Manorina melanocephala*), Pacific Black Duck (*Anas superciliosa*) and Rainbow Lorikeet (*Trichoglossus moluccanus)*.

No threatened fauna species were observed.

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Although no threatened fauna species were observed during the site assessments, the Merri Creek is known habitat for the Growling Grass Frog, with multiple records of the species located at the proposed crossing of the creek by the pipeline alignment. In multiple areas of the pipeline alignment, there were waterbodies (such as farm dams) present with sections of swampy/riparian type vegetation where frogs were heard calling including the Common Eastern Froglet (*Crinia signifera)*, Spotted Marsh Frog (*Limnodynastes tasmaniensis*) and Whistling Tree Frog (*Litoria verreauxii)*.

Deep soil cracks were present in grassed areas in some sections of the construction corridor, which (if located in undisturbed land) could provide habitat for the Striped Legless Lizard, as well as other threatened fauna species including the Victorian Grassland Earless Dragon. However, the alignment is predominately restricted to the existing YVW freehold land that has been heavily disturbed in recent years, and as such, it is unlikely that much of the construction corridor is preferable habitat for fauna (including threatened species).

Areas of dense, tussock forming grasses were present in some sections of the construction corridor within the MSA, where Brown Quails (*Coturnix ypsilophora*) were often flushed from the grass. These areas could also provide habitat for the Golden Sun Moth, which is supported by areas of MSA offset for the species being present. As mentioned above however, much of the construction corridor has been heavily disturbed through recent infrastructure installation and land management practices, meaning much of this vegetation is unlikely to support habitat for fauna.

Multiple significant hollow bearing trees were also noted, especially in the land along Summerhill Road where mature, remnant River Red Gum (*Eucalyptus camaldulensis*) (RRG) trees are likely to provide habitat for fauna species in the region. However, impacts to these trees have largely been avoided by the proposed works through adjustments to the alignment and restriction of the construction corridor.

Exotic/pest species observed included the European Honeybee (*Apis mellifera*), bird species such as Indian Myna (*Acridotheres tristis*), European Goldfinch (*Carduelis carduelis*), Golden-headed Cisticola (*Cisticola exilis*) and House Sparrow (*Passer domesticus*), as well as European Hare (*Lepus europaeus*), European Rabbit (*Oryctolagus cuniculus*) and European Red Fox (*Vulpes vulpes*).

3.3 Mitigation and Management

3.3.1 Avoidance and Minimisation of Native Vegetation Removal

YVW have considered the avoidance and minimisation of native vegetation loss (particularly native vegetation) for the Aurora to Bald Hill NDW project during the design of the project and subsequent design updates. This has been achieved through the following steps:

- **Design -** sensitive infrastructure placement was considered during the early design stages of the project. Much of the alignment and construction corridor has been positioned in previously disturbed, highly managed YVW freehold land. For the sections not within the YVW freehold land, native vegetation impacts have been minimised where possible through placement of the construction corridor in highly disturbed, cleared/grazed agricultural paddocks, and through the use of trenchless excavation (i.e. boring) under sensitive areas (i.e. areas of high-quality native vegetation and creeks/waterways). Sensitive areas of native vegetation and large old trees with the potential to trigger further approval requirements (i.e. EPBC listed ecological communities) have been avoided where possible through restriction of the construction corridor.

- **Arborist Impact Assessment –** although many trees were avoided during the initial design stages, an arborist assessment has been undertaken of trees within and in proximity to the construction corridor to provide advice on further opportunities for tree impact mitigation and retention. This has resulted in a reduction of anticipated tree removals required to facilitate the proposed works (from 210 trees requiring removal, down to 68 trees). All works should be undertaken in accordance with the project Arboricultural Impact Assessment (Ripple, 2025) and the protection and management measures adopted within the TMPP to ensure retention.

A project CEMP should also be prepared for the project to mitigate potential impacts to the surrounding environment during construction and should include (but not limited to) the following:

- Key environmental issues of the site and how they will be managed
- Flora management

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- Site access and timing
- Storage and material stockpiling
- Hazardous material management
- Fire management
- Noise and dust management
- Weed and pathogen control
- Erosion and sediment control
- Restoration and rehabilitation

It is recommended that all site personnel be inducted into the requirements of the CEMP, including the environmental values of the site and environmental protection measures to be implemented prior to and during construction work.

3.3.2 Native Vegetation Loss

Seven habitat zones (comprised of 10 patches of native vegetation) were identified and mapped within the project area and are outlined in the Environmental Mapping attached in **Appendix A**. However, eight of the patches are located within the MSA area and as such, Vegetation Quality Assessments (VQAs) have not been undertaken for these areas as this has already been accounted for within the Native Vegetation and Protection Plans (NVPPs) under each of the incorporated Precinct Structure Plans (PSPs). Two habitat zones were identified outside of the MSA area; however, will not be impacted by the proposed works.

Directly adjacent to the southern-most section of the construction corridor between Craigieburn Road East and Malcolm Creek and outside of the MSA area, native vegetation (HZ5 and HZ6) is present that was determined to be representative of Plains Grassland (EVC 132_61 (VVP)). This EVC occurs on fertile cracking basalt soils prone to seasonal waterlogging in areas receiving at least 500mm annual rainfall (DEECA, 2025a). It is typified as treeless vegetation, mostly less than 1 m tall dominated by largely graminoid and herb life forms (DEECA, 2025a). Plains Grassland has been mapped by DEECA across much of the construction corridor adjacent to the rail corridor and has a Bioregional Conservation Status of 'Endangered' within the Victorian Volcanic Plain bioregion (DEECA, 2025a). Just north of Malcolm Creek (south of the Hume Freeway), native vegetation representative of Plains Grassland (EVC 132_61 (VVP)) was also recorded (HZ8).

Although native vegetation has been accounted for under the MSA for much of the project area, between the Hume Freeway and Summerhill Road, multiple sections of the construction corridor had native vegetation present (HZ1, HZ2a, HZ2b, HZ3, HZ7) that was determined to be representative of Plains Grassy Woodland (EVC 55_61 (VVP)). This EVC occurs in areas receiving approximately 500 – 700 mm annual rainfall. It is described as being an open, eucalypt woodland to 15 m tall, occupying poorly drained, fertile soils or gently undulating plains at low elevations, with an understorey consisting of a few sparse shrubs over a species-rich grassy and herbaceous ground layer (DEECA, 2025a). Plains Grassy Woodland has been mapped by DEECA between the Hume Freeway and Summerhill Road and has a bioregional Conservation Statue of 'Endangered' within the Victorian Volcanic Plain bioregion (DEECA, 2025a). HZ4 just south of Donnybrook Road was also determined to be representative of Plains Grassy Woodland.

A total amount of 0.318 ha of Plains Grassland (EVC 132_61) and 0.126 ha of Plains Grassy Woodland (EVC 55_61) is to be impacted by the proposed works. Habitat zones to be impacted include HZ1, HZ2a, HZ3a, HZ3b, HZ3c and HZ8.

Scattered native flora at low density (well under 25% coverage to be considered patch-quality native vegetation) is consistently present along much of the construction corridor and is to be removed as a result of the proposed works. Species composition varies across the construction corridor; however, scattered individuals to be removed include Windmill Grass (*Chloris truncata*), Bindweed (*Convolvulus* sp.), Blue Devil (*Eryngium ovinum)*, Rush (*Juncus* sp.), Pale Mat-rush (*Lomandra nana*), Tree Violet (*Melicytus dentatus*), Brown-back Wallaby-grass (*Rytidosperma duttonianum*), Wallaby Grass (*Rytidosperma* sp.), Spear Grass (*Stipa* spp.) and Kangaroo Grass (*Themeda triandra*). Further information regarding the scattered native vegetation present along the alignment is included in **Appendix C**.

3.3.3 Offset Strategy

The DEECA NVR report for the construction corridor in this report is included in **Appendix F**. The NVR report notes that the total extent of vegetation to be removed as a result of the proposed works, as 0.444 ha. The Location Category is Location 2, and an Intermediate Assessment Pathway has been determined. Scattered native vegetation to be removed does not require offsetting in line with 'The Guidelines'.

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The report has determined the following offset requirements under 'The Guidelines' if a permit is granted (**Table 11**):

Table 11: Offset requirements from NVR report.

General Offset Amount	0.250 general habitat units
Vicinity	Port Phillip and Westernport Catchment Management Authority (CMA) or Hume City Council
Minimum Strategic Biodiversity Value Score	0.473
Large Trees	0 large trees

YVW can complete their offset requirements via two methods. Options for consideration regarding offset strategies include:

- A first party offset – offsetting any losses within a secured offset site on YVW land.
- A third part offset – purchasing a native vegetation offset from someone else.

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4 Summary, Conclusions and Next Steps

4.1 Summary

This detailed assessment has included a review of publicly available databases to help determine the potential implications for permit and approvals relevant to biodiversity. A summary of the potential legislative implications relating to biodiversity are highlighted in **Table 12** below. Refer to 'Aurora to Bald Hill NDW Main - Stage 1 Detailed Design - Planning and Approvals Assessment' (Ripple JV, 2025) for a comprehensive list of other potential environmental planning approval requirements (as well as other planning requirements) for the project. **Section 4.2** outlines conclusions and **Section 4.3** contains a summary of next steps. Please note, if there are to be any changes in the design of the proposed YVW infrastructure, the following recommendations will need to be revised.

Table 12: Policy and Legislation Summary Table

Legislation	Permit/Approval?	Is a permit/approval required?
	Federal	
Environment Protection and Biodiversity Conservation Act 1999	Is an EPBC referral required? Is WICA approval required?	**EPBC referral – No.** The *Melbourne Strategic Assessment (Environment Mitigation Levy) Act 2020* provides a streamlined approval process for MNES within the boundaries of the Melbourne Strategic Assessment Area, whereby a referral under the EPBC Act is not required, provided the process under the MSA Act is followed (including payment for any applicable levy events). Impacts to EPBC listed MNES outside of the MSA area are restricted to potential impacts to a threatened Ecological Community. There are unlikely to be any significant impacts to any MNES outside of the MSA area. As such, referral under the EPBC Act is not required for the project. **WICA approval – Yes.** Works at the Merri Creek crossing fall within the boundaries of Conservation Area 34 and as such trigger the requirement of Works in a Conservation Area (WICA) approval from DEECA.
	State	
Catchment and Land Protection Act 1994	Manage transportation of noxious weeds.	**No (management only)** – declared noxious weeds were observed throughout the construction corridor. A CEMP outlining the mitigation and control of noxious weeds should be prepared prior to construction.
Environmental Effects Act 1978	Is an Environmental Effects Statement (EES) required? Will the works have a regional or state impact?	**No** – none of the biodiversity referral criteria under the EE Act are likely to be triggered by the proposed works. As such, it has been determined that an EES is not required for the project.
Flora and Fauna Guarantee Act 1988	Is a Flora permit (public land) required?	**Yes** – FFG listed and protected flora species and ecological communities are to be impacted at numerous sections along the construction corridor within public land. As such, a "Permit to remove protected flora" is required for the removal of four Fragrant Saltbush (*Rhagodia parabolica*) individuals, one Studley Park Gum (*Eucalyptus xstudleyensis*), 0.318 ha of 'Westen (Basalt) Plains Grasslands Community' and 0.126 ha of 'Western Basalt Plains (River Red Gum) Grassy Woodland Community'.
Guidelines for the removal, destruction or lopping of native vegetation (DELWP, 2017)	Are Native Vegetation Offsets required?	**Yes**– A total amount of 0.444 ha of native vegetation removal subject to Clause 52.17 is required to facilitate the proposed works. This will require a general offset amount of 0.250 general habitat units with a minimum strategic biodiversity value score of 0.473 from either Melbourne Water Catchment Management Authority (CMA) or Hume City LGA. This vegetation qualifies for the use of the 'Utilities Installation' exemption under the planning schemes. However, as the project triggers a planning permit under another Clause of the relevant

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Legislation	Permit/Approval?	Is a permit/approval required?
		Planning Scheme, it would not be advantageous to utilise the Procedure. Scattered, understorey native vegetation to be removed by the project that triggers a planning permit under both the Hume and Whittlesea planning schemes does not require offsetting in line with 'The Guidelines'.
Melbourne Strategic Assessment (Environment Mitigation Levy) Act 2020	Are the works a MSA Levy event triggering the payment of fees?	**Levy event – No.** MSA levy payments apply only to specific "levy event" triggers where MNES occur on *private land* within the MSA. Utility infrastructure (including infrastructure for water) is not classified as a "levy event". Therefore, any future YVW infrastructure construction works on private land, associated with water distribution (e.g. water mains and pumping stations) are exempt from MSA levy payments. MSA levy payments are only applicable within the MSA Levy Area Boundary and do not apply within Conservation Areas. **Salvage and translocation – Yes.** The construction corridor falls within areas labelled as 'Potential Salvage Operations' for Matted Flax-lily. As such, a 'Salvage Enquiry Form' is to be completed and submitted to DEECA.
Planning and Environment Act 1987	Is a permit required to remove vegetation (native or introduced)?	**Yes** – Multiple overlays present along the alignment trigger a planning permit for the removal of vegetation (ESO2, ESO3, ESO4, ESO6, ESO10, PAO2, Clause 52.17).
Wildlife Act 1975	Is a wildlife permit required? Required for removal of wildlife habitat and handling of wildlife.	**Yes** – Pre-construction fauna checks are required of hollows, trees, waterbodies (i.e. farm dams) and vegetation prior to disturbance. If works are to occur near any known fauna habitat, a suitably qualified specialist who holds management authority under the *Wildlife Act 1975* should be engaged for fauna salvage and translocation.

4.2 Conclusions and Recommendations

Ripple ecologists have undertaken a review of relevant documentation and conducted a detailed site assessment to provide advice on potential environmental legislative requirements and recommended next steps, in order to progress Stage 1 Detailed Design of the Aurora to Bald Hill NDW Main project. Based on our findings the following is likely:

- **CaLP weeds were noted** across the construction corridor. Management will be required during construction and measures to minimise weed spread should be outlined in a project Construction Environmental Management Plan (CEMP) to comply with legal obligations under the *Catchment and Land Protection Act 1994*.
- **An Environmental Effects Statement is not required** for the project under the *Environmental Effects Act 1978*, as none of the biodiversity referral criteria under the EE Act are likely to be triggered by the proposed works. As such, the proposed works are unlikely to have a significant impact on a regional or state context.
- **An EPBC referral is not required** under the *Environment Protection and Biodiversity Conservation Act 1999* for the project as there are unlikely to be any significant impacts on any matters of national environmental significance.
- **An FFG Permit to Remove Protected Flora is required** for the removal of four Fragrant Saltbush (*Rhagodia parabolica*) individuals, one Studley Park Gum (*Eucalyptus xstudleyensis*), 0.318 ha of 'Westen (Basalt) Plains Grasslands Community' and 0.126 ha of 'Western Basalt Plains (River Red Gum) Grassy Woodland Community' under the *Flora and Fauna Guarantee Act 1988*.
- **A planning permit is required for vegetation removal** under the *Planning and Environment Act 1987* including:
    - o within Hume City Council for vegetation impacts within ESO2, ESO10, PAO2 and Clause 52.17
    - o within Whittlesea City Council for vegetation impacts within ESO3, ESO4, ESO6 and Clause 52.17

    Under Clause 52.17 of the Hume Planning Scheme, the removal of 0.444 ha of native vegetation will result in a requirement to offset 0.250 General Habitat Units with a minimum strategic biodiversity value score of 0.473 within the Melbourne Water CMA or Hume City Council areas. Scattered native

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vegetation triggering a planning permit under Clause 52.17 of the Whittlesea Planning Scheme does not require offsetting (in line with 'The Guidelines for the removal destruction or lopping of native vegetation').

- Under the ***Wildlife Act 1975***, a qualified wildlife specialist (ecologist/zoologist) who holds management authorisation under the Act is to be engaged to undertake a pre-construction fauna/habitat check, and to be onsite during any vegetation/habitat removal works, to supervise works and relocate any displaced fauna.

- **Works in a Conservation Area (WICA) approval is required** for works within Conservation Area 34 (CA34) that intersect with the alignment in line with the EPBC Act and the *Melbourne Strategic Assessment (Environment Mitigation Levy) Act 2020*. Additionally, a **'Salvage Enquiry Form'** is to be completed and submitted to DEECA as the construction corridor falls within MSA areas labelled as 'Potential Salvage Operations' for Matted Flax-lily.

4.3 Next Steps

In order to facilitate the proposed works, the actions outlined in **Table 13** are recommended:

Table 13: Next Steps

Recommended Action	Details	Timeframe
Consultation with councils	Consultation with Hume and Whittlesea Councils is recommended to confirm the interpretation of the planning scheme, any permit requirements, any applicable exemptions, and to discuss any reinstatement requirements.	Prior to applying for planning permits where required and prior to construction commencing.
Preparation and submission of applicable Biodiversity Approvals (i.e., Planning Permit, FFG Permit, WICA approval)	A planning permit is required for vegetation removal from Hume Council under ESO2, ESO10, PAO2 and Clause 52.17. A planning permit is required for vegetation removal from Whittlesea Council under ESO3, ESO4, ESO6 and Clause 52.17. An FFG Act permit is required for four Fragrant Saltbush (*Rhagodia parabolica*) individuals, one Studley Park Gum (*Eucalyptus xstudleyensis*), 0.318 ha of 'Westen (Basalt) Plains Grasslands Community' and 0.126 ha of 'Western Basalt Plains (River Red Gum) Grassy Woodland Community' from DEECA. WICA approval for works within Conservation Area 34 and 'Salvage Enquiry Form' for Matted Flax-lily from DEECA.	Prior to construction commencing. Biodiversity approvals can typically take up to 4 - 12 weeks to be processed. In line with 'The Guidelines', offsets must be secured, and evidence provided to DEECA prior to 31 August in the year when works are to occur.
Preparation of a Construction Environmental Management Plan (CEMP)	The preparation of a CEMP is required to ensure environmental impacts are minimised and the control of noxious weeds are addressed during the construction phase. The CEMP must be approved by DEECA for works in CA34 as part of the WICA application and as such, must specify the following: • implementation and delivery of conservation area fencing (adequate for preventing Growling Grass Frogs entering the areas of work) • mitigation measures that will be implemented to maintain biodiversity values outlined for each Conservation Area (e.g., protection fencing, sediment and erosion control, etc.)	Prior to commencement of construction phase.

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Recommended Action	Details	Timeframe
	• plans for the re-habilitation of conservation areas impacted by the proposed works	

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5 References

Agriculture Vic (2017). *Victorian Noxious Weeds List*. Agriculture Vic. Available at: https://agriculture.vic.gov.au/__data/assets/pdf_file/0005/538151/Victorian-noxious-weeds-list-by-common-name-20-July-2017.pdf

ALA (2025a). *Pseudemoia pagenstacheri*. Atlas of Living Australia. Available at: https://bie.ala.org.au/species/https:/biodiversity.org.au/afd/taxa/32509547-85d6-4d13-86fc-df94d9df1e2f

ALA (2025b). *Spatula rhynchotis*. Atlas of Living Australia. Available at: https://bie.ala.org.au/species/https://biodiversity.org.au/afd/taxa/bdf18035-665d-47a1-bb8b-789aaf62223e

ALA (2025c). *Trapezites luteus*. Atlas of Living Australia. Available at: https://bie.ala.org.au/species/https://biodiversity.org.au/afd/taxa/91b90383-8731-4d70-b333-9dfef5778b89

ALA (2025d). *Turnix pyrrhothorax*. Atlas of Living Australia. Available at: https://bie.ala.org.au/species/https://biodiversity.org.au/afd/taxa/83222654-3360-4649-af4a-6f8304ce0744

Australian Museum (2020). *Yellow-bellied Sheathtail Bat*. Australian Museum. Available at: https://australian.museum/learn/animals/bats/yellow-bellied-sheathtail-bat/

Australian Museum (2024). *Platypus*. Australian Museum. Available at: https://australian.museum/learn/animals/mammals/platypus/

Australian Standards (2025). *AS 4970:2025 – Protection of trees on development sites*. Standards Australia. Available at: https://www.standards.org.au/standards-catalogue/standard-details?designation=as-4970-2025

Birds in Backyards (2025a). *Black Falcon*. Birdlife Australia. Available at: https://www.birdsinbackyards.net/species/Falco-subniger

Birds in backyards (2025b). *Gang-gang Cockatoo*. Birdlife Australia. Available at: https://www.birdsinbackyards.net/species/Callocephalon-fimbriatum

Birds in backyards (2025c). *Latham's Snipe*. Birdlife Australia. Available at: https://www.birdsinbackyards.net/species/Gallinago-hardwickii

Birds in Backyards (2025d). *Little Eagle*. Birdlife Australia. Available at: https://www.birdsinbackyards.net/species/Hieraaetus-morphnoides

Birds in Backyards (2025e). *Musk Duck*. Birdlife Australia. Available at: https://www.birdsinbackyards.net/species/Biziura-lobata

Butterfly House (2025). *Jalmenus icilius*. Butterfly House. Available at: http://lepidoptera.butterflyhouse.com.au/lyca/icilius.html

DCCEEW (2024). *Litoria raniformis – Growling Grass Frog*. Australian Government Department of Climate Change, Energy, the Environment and Water. Available at: http://www.environment.gov.au/cgi-bin/sprat/public/publicspecies.pl?taxon_id=1828

DCCEEW (2025a). *Grey-headed Flying-fox*. Australian Government Department of Climate Change, Energy, the Environment and Water. Available at: http://www.environment.gov.au/cgi-bin/sprat/public/publicspecies.pl?showprofile=Y&taxon_id=186

DCCEEW (2025b). *Protected Matters Search Tool: Interactive Map (online)*. Australian Government Department of Climate Change, Energy, the Environment and Water. Available at: Protected Matters Search Tool: Interactive Map (accessed [illegible])

This copied document is made available for the sole purpose of enabling its consideration and review as part of a planning process under the Planning and Environment Act 1987.
The copy must not be used for any other purpose.
Please note that the plan may not be to scale.

DEECA (2025a). *Bioregions and EVC Benchmarks*. Victorian State Government Department of Energy, Environment and Climate Action. Available at: https://www.environment.vic.gov.au/biodiversity/bioregions-and-evc-benchmarks

DEECA (2025b). *Characteristics of Threatened Communities*. Victorian State Government Department of Energy, Environment and Climate Action. Available at: https://www.environment.vic.gov.au/__data/assets/pdf_file/0018/50418/04072019-Flora-and-Fauna-Guarantee-Characteristics-of-Threatened-Communities-3.pdf

DEECA (2025c). *MSA Act*. Victorian State Government Department of Energy, Environment and Climate Action. Available at: https://www.msa.vic.gov.au/melbourne-strategic-assessment-act-2020

DEECA (2025d). *MSA MapShare*. Victorian State Government Department of Energy, Environment and Climate Action. Available at: https://mapshare.vic.gov.au/msa/map/

DEECA (2025e). *NatureKit 2.0*. Victorian State Government Department of Energy, Environment and Climate Action. Available at: https://maps2.biodiversity.vic.gov.au/Html5viewer/index.html?viewer=NatureKit

DEECA (2025f). *Native Vegetation Regulations Map*. Victorian State Government Department of Energy, Environment and Climate Action. Available at: https://www.environment.vic.gov.au/native-vegetation/NVRMap

DEECA (2025g). *Victorian Biodiversity Atlas* (online). Victorian State Government Department of Energy, Environment and Climate Action. Available at: https://www.environment.vic.gov.au/biodiversity/victorian-biodiversity-atlas

DELWP (2017). *Guidelines for the removal, destruction or lopping of native vegetation*. Victoria State Government Department of Environment, Land, Water and Planning. Available at: Guidelines for the removal, destruction or lopping of native vegetation (environment.vic.gov.au)

DELWP (2018). *Advisory list of environmental weeds in Victoria.* Victoria State Government Department of Environment, Land, Water and Planning. Available at: https://www.ari.vic.gov.au/__data/assets/pdf_file/0027/125919/ARI-Technical-Report-287-Advisory-list-of-environmental-weeds-in-Victoria.pdf

DELWP (2020). *Procedure to rely on the utility installations exemption in planning schemes – Water service providers*. Victoria State Government Department of Environment, Land, Water and Planning. Available at: Procedure to rely on the utility installations exemption in planning schemes (environment.vic.gov.au)

DEPI (2013). *Biodiversity Conservation strategy for Melbourne's growth Corridors*. Victorian Government Department of Environment and Primary Industries Melbourne. Available at: https://www.msa.vic.gov.au/__data/assets/pdf_file/0034/696139/Biodiversity-Conservation-Strategy-2013.pdf

DSE (2004). *EVC/Bioregion Benchmark for Vegetation Quality Assessment - Victorian Volcanic Plain bioregion*. The State of Victoria Department of Sustainability and Environment. Available at: https://www.environment.vic.gov.au/__data/assets/pdf_file/0029/48755/VVP_EVCs_combined.pdf

DTP (2023). *Ministerial guidelines for assessment of environmental effects under the Environment Effects Act 1978.* Department of Transport and Planning. Available at: https://www.planning.vic.gov.au/environmental-assessments/environmental-assessment-guides/ministerial-guidelines-for-assessment-of-environmental-effects

DTP (2025a). *Hume Planning Scheme*. Department of Transport and Planning. Available at: https://planning-schemes.app.planning.vic.gov.au/Hume/ordinance

DTP (2025b). *VicPlan*. Victorian State Government Department of Energy, Environment and Climate Action. Available at: https://mapshare.vic.gov.au/vicplan/

DTP (2025c). *Whittlesea Planning Scheme*. Department of Transport and Planning. Available at: https://planning-schemes.app.planning.vic.gov.au/Whittlesea/ordinance

This copied document is made available for the sole purpose of enabling its consideration and review as part of a planning process under the Planning and Environment Act 1987.
The copy must not be used for any other purpose.
Please note that the plan may not be to scale.

GHD (2022). *NGA Water Transfer Assets Feasibility Assessment - Ecology Assessment*. Internal document (not circulated)

iNaturalist (2025). *Plumed Egret*. iNaturalist. Available at: https://www.inaturalist.org/taxa/1505779-Ardea-plumifera#cite_note-S&D-4

NearMap (2025). Available at: https://apps.nearmap.com/maps/

SWIFFT (2025a). *Blue-billed Duck*. State Wide Integrated Flora and Fauna Teams. Available at: https://www.swifft.net.au/cb_pages/sp_blue-billed_duck.php

SWIFFT (2025b). *Common Bent-wing Bat*. State Wide Integrated Flora and Fauna Teams. Available at: https://www.swifft.net.au/cb_pages/sp_common_bent-wing_bat.php

SWIFFT (2025c). *Golden Sun Moth*. State Wide Integrated Flora and Fauna Teams. Available at: https://www.swifft.net.au/cb_pages/sp_golden_sun_moth.php

SWIFFT (2025d). *Striped Legless Lizard*. State Wide Integrated Flora and Fauna Teams. Available at: https://www.swifft.net.au/cb_pages/sp_striped_legless_lizard.php

VicFlora (1994). *Dianella longifolia var. grandis*. VicFlora. Available at: https://vicflora.rbg.vic.gov.au/flora/taxon/f1086f96-0684-4534-b78d-04b26a2925a9

VicFlora (1996). *Eucalyptus kitsoniana*. VicFlora. Available at: https://vicflora.rbg.vic.gov.au/flora/taxon/e9aa87a9-41f4-4287-8404-0befbe488a73

VicFlora (1999). *Callitriche umbonata*. VicFlora. Available at: https://vicflora.rbg.vic.gov.au/flora/taxon/7935cf9a-8e95-410f-ada0-f75bd975de43

VicFlora (2016a). *Amphibromus pithogastrus*. VicFlora. Available at: https://vicflora.rbg.vic.gov.au/flora/taxon/1e1b7ab4-dc73-4c92-8741-174521b6d968

VicFlora (2016b). *Geranium solanderi var. solanderi*. VicFlora. Available at: https://vicflora.rbg.vic.gov.au/flora/taxon/e6d11d08-e937-4cd9-bc9b-6f22076241df

VicFlora (2017a). *Coronidium gunnianum*. Flora of Victoria. Available at: https://vicflora.rbg.vic.gov.au/flora/taxon/a0c78fff-3328-4c1b-931a-fc4a62be41b0

VicFlora (2017b). *Microseris scapigera*. VicFlora. Available at: https://vicflora.rbg.vic.gov.au/flora/taxon/0227cb8c-4a85-47ae-9b9e-24d4ba831aae

VicFlora (2017c). *Tripogonella loliiformis*. VicFlora. Available at: https://vicflora.rbg.vic.gov.au/flora/taxon/c1fcce25-80f9-46d2-a1a4-f88164b422ed

VicFlora (2018a). *Acacia howittii*. VicFlora. Available at: https://vicflora.rbg.vic.gov.au/flora/taxon/f9d0ac14-065c-462d-a5f5-565343ef3761

VicFlora (2018b). *Carex tasmanica*. Flora of Victoria. Available at: https://vicflora.rbg.vic.gov.au/flora/taxon/075c0001-311e-468e-a52a-44bcc6dac413

VicFlora (2018c). *Diuris basaltica*. Flora of Victoria. Available at: https://vicflora.rbg.vic.gov.au/flora/taxon/348a8376-6eb4-414b-af36-2d165b0cf3d4

VicFlora (2018d). *Eucalyptus crenulata*. VicFlora. Available at: https://vicflora.rbg.vic.gov.au/flora/taxon/339f6258-d970-462f-94f9-c3a253caf4e2

VicFlora (2018e). *Eucalyptus sideroxylon subsp. sideroxylon*. Flora of Victoria. Available at: https://vicflora.rbg.vic.gov.au/flora/taxon/018f3a83-d75d-42da-8047-faf278a3cbbe

VicFlora (2018f). *Eucalyptus ×studleyensis*. VicFlora. Available at: https://vicflora.rbg.vic.gov.au/flora/taxon/8e309ea7-10aa-40a9-a52d-4ba93b1ce194

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The copy must not be used for any other purpose.
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VicFlora (2018g). *Geranium sp. 1*. VicFlora. Available at: https://vicflora.rbg.vic.gov.au/flora/taxon/18a5b721-c89d-4923-a0f4-6946b004b38a

VicFlora (2018h). *Nicotiana suaveolens*. VicFlora. Available at: https://vicflora.rbg.vic.gov.au/flora/taxon/e2c50ae5-b995-4d00-945a-ac715ce2077f

VicFlora (2018i). *Ranunculus diminutus*. VicFlora. Available at: https://vicflora.rbg.vic.gov.au/flora/taxon/c1dbc2e5-62c9-4446-9aaf-6aa63e6e3225

VicFlora (2019a). *Cullen tenax*. VicFlora. Available at: https://vicflora.rbg.vic.gov.au/flora/taxon/597d7f4a-0997-4853-bb63-d499a65edb70

VicFlora (2019b). *Eucalyptus leucoxylon subsp. megalocarpa*. VicFlora. Available at: https://vicflora.rbg.vic.gov.au/flora/taxon/75266c6b-6f92-4ef8-832f-466051f443b1

VicFlora (2019c). *Goodia medicaginea*. VicFlora. Available at: https://vicflora.rbg.vic.gov.au/flora/taxon/072e1f03-9ebe-4b7e-b1b2-2e0e715e8e25

VicFlora (2019d). *Lachnagrostis semibarbata var. semibarbata*. VicFlora. Available at: https://vicflora.rbg.vic.gov.au/flora/taxon/29d290bc-a54f-4d34-b198-ed522a8067f1

VicFlora (2019e). *Lepidium hyssopifolium*. VicFlora. Available at: https://vicflora.rbg.vic.gov.au/flora/taxon/0977e7d1-660e-4e51-a4df-bdcc628e3a2e

VicFlora (2019f). *Melaleuca armillaris subsp. armillaris*. VicFlora. Available at: https://vicflora.rbg.vic.gov.au/flora/taxon/aee04d1d-f4a0-4714-9ece-08e5b6401e33

VicFlora (2019g). *Melaleuca halmaturorum*. VicFlora. Available at: https://vicflora.rbg.vic.gov.au/flora/taxon/5750a78a-d073-4e8f-9861-2b06a6ca8f7b

VicFlora (2019h). *Rhagodia parabolica*. VicFlora. Available at: https://vicflora.rbg.vic.gov.au/flora/taxon/a328d023-a527-4b3c-afe1-8a3822a4f1ad

VicFlora (2020). *Amphibromus fluitans*. VicFlora. Available at: https://vicflora.rbg.vic.gov.au/flora/taxon/9a68f999-2576-473a-b8d2-0e58dd3c8b35

VicFlora (2021a). *Corymbia maculata*. VicFlora. Available at: https://vicflora.rbg.vic.gov.au/flora/taxon/a80bb5c8-e18f-4db0-b36e-36344cc3ffb5

VicFlora (2021b). *Dianella amoena*. VicFlora. Available at: https://vicflora.rbg.vic.gov.au/flora/taxon/37a818fc-49f7-4bf0-90a7-2f807d2db18b

VicFlora (2021c). *Diuris behrii*. VicFlora. Available at: https://vicflora.rbg.vic.gov.au/flora/taxon/fc2d65a7-bd14-433b-8db7-4ef5bf1b8466

VicFlora (2021d). *Geranium sp. 3*. VicFlora. Available at: https://vicflora.rbg.vic.gov.au/flora/taxon/26406eb8-fca8-4ca3-a54c-40e55240b438

VicFlora (2022a). *Podolepis linearifolia*. VicFlora. Available at: https://vicflora.rbg.vic.gov.au/flora/taxon/494da784-537f-4426-a837-c41139277b37

VicFlora (2022b). *Xerochrysum palustre*. VicFlora. Available at: https://vicflora.rbg.vic.gov.au/flora/taxon/2b897163-174b-42a0-94d5-f25fc324977b

VPA (2024). *VPA Greenfields Planning – Precinct Structure Plan Areas* (online). Available at: https://planvic.maps.arcgis.com/apps/webappviewer/index.html?id=536f9e451be0496c89548ae04013d76b

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APPENDICES

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Appendix A: Environmental Mapping

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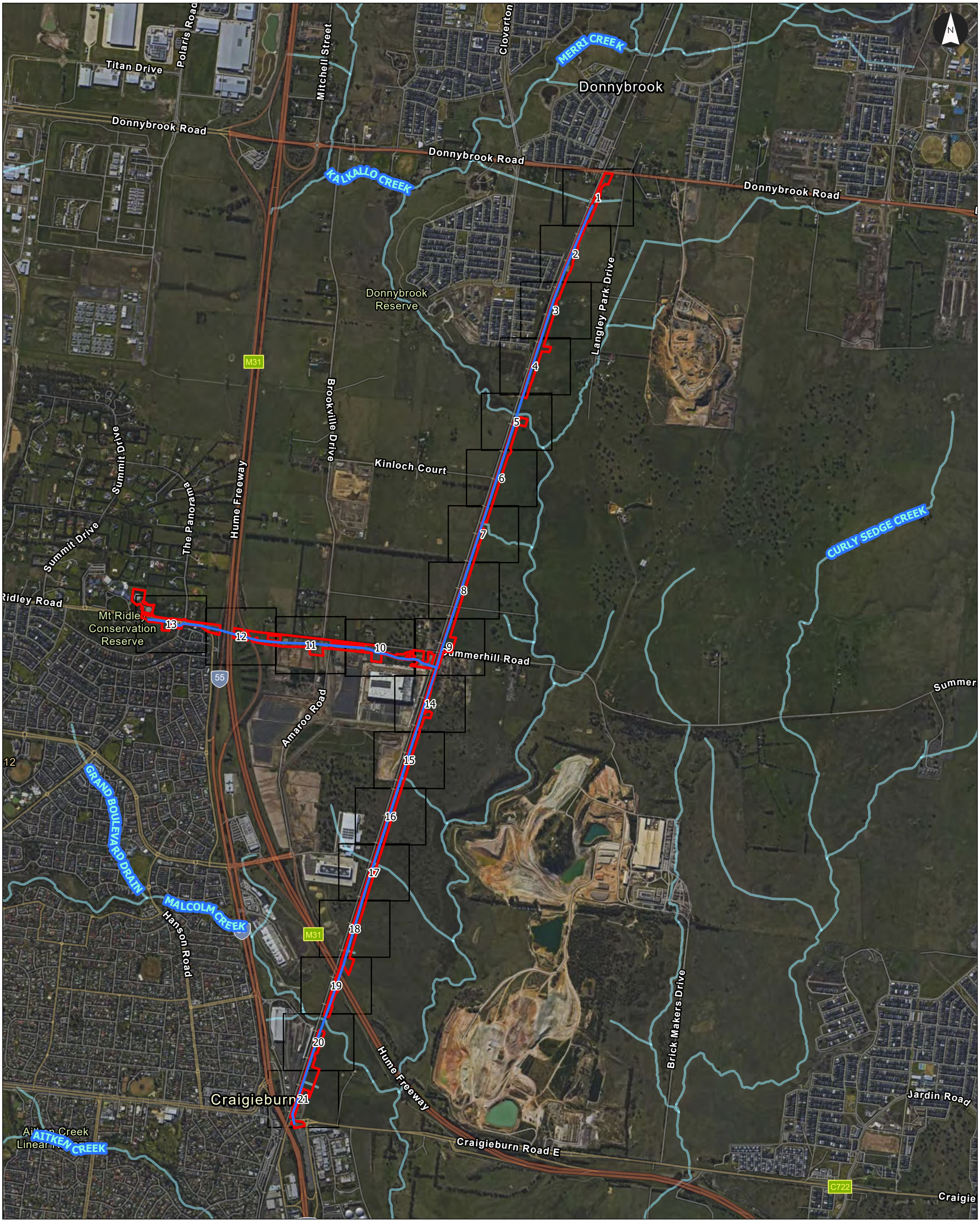

Overview

Aurora to Bald Hill Tanks NDW Main – Detailed Design
Aurora, Victoria

Client: Yarra Valley Water
Project Code: 309500615
Drawn By: TG, Checked By: RB
Figure 1.1 Rev. 01
Date: 2025-10-01

Legend

- Pipeline Alignment
- Construction Corridor

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. Metromap (August 2025)

0 200 400 600 800 1,000 Metres

Scale at A3: 1:24,000

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Environmental Mapping

Aurora to Bald Hill Tanks NDW Main – Detailed Design
Aurora, Victoria

Client: Yarra Valley Water
Project Code: 300250010
Drawn By: TG, Checked By: RB
Figure: 1 of 21
Date: 2025-10-30

Legend

Proposed Alignment & Impact Areas
- Construction Corridor
- Pipeline Alignment
- Study Area

Trees
- Amenity (Retain)
- Amenity (Retain with supervision)
- Native (Retain)
- Notional Root Zone
- Structural Root Zone

Habitat Zones
- Plains Grassy Woodland (EVC 132)

Impacted Native Vegetation
- Impacted Scattered Native Vegetation
- Fauna Observation

CaLP Listed Species
- CaLP Listed Species
- Dense CaLP Listed Species

Hydrology
- Water Course
- Water Body

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. Metromap (August 2025)

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0 15 30 45 60 75 Metres

Scale at A3: 1:1,500



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Environmental Mapping

Aurora to Bald Hill Tanks NDW Main – Detailed Design
Aurora, Victoria

Client: Yarra Valley Water
Project Code: 300250010
Drawn By: TG, Checked By: RB
Figure: 2 of 21
Date: 2025-10-30

Legend

Proposed Alignment & Impact Areas

- Construction Corridor
- Pipeline Alignment
- Study Area

Trees

- Amenity (Retain)
- Native (Retain)
- Notional Root Zone
- Structural Root Zone

Impacted Native Vegetation

- Impacted Scattered Native Vegetation

CaLP Listed Species

- CaLP Listed Species

Hydrology

- Water Body

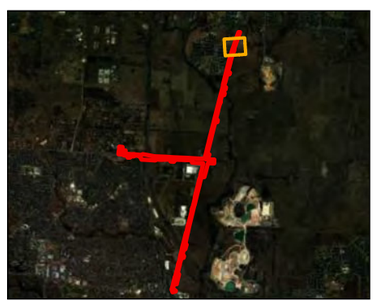
Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. Metromap (August 2025)

Stantec

0 15 30 45 60 75 Metres

Scale at A3: 1:1,500



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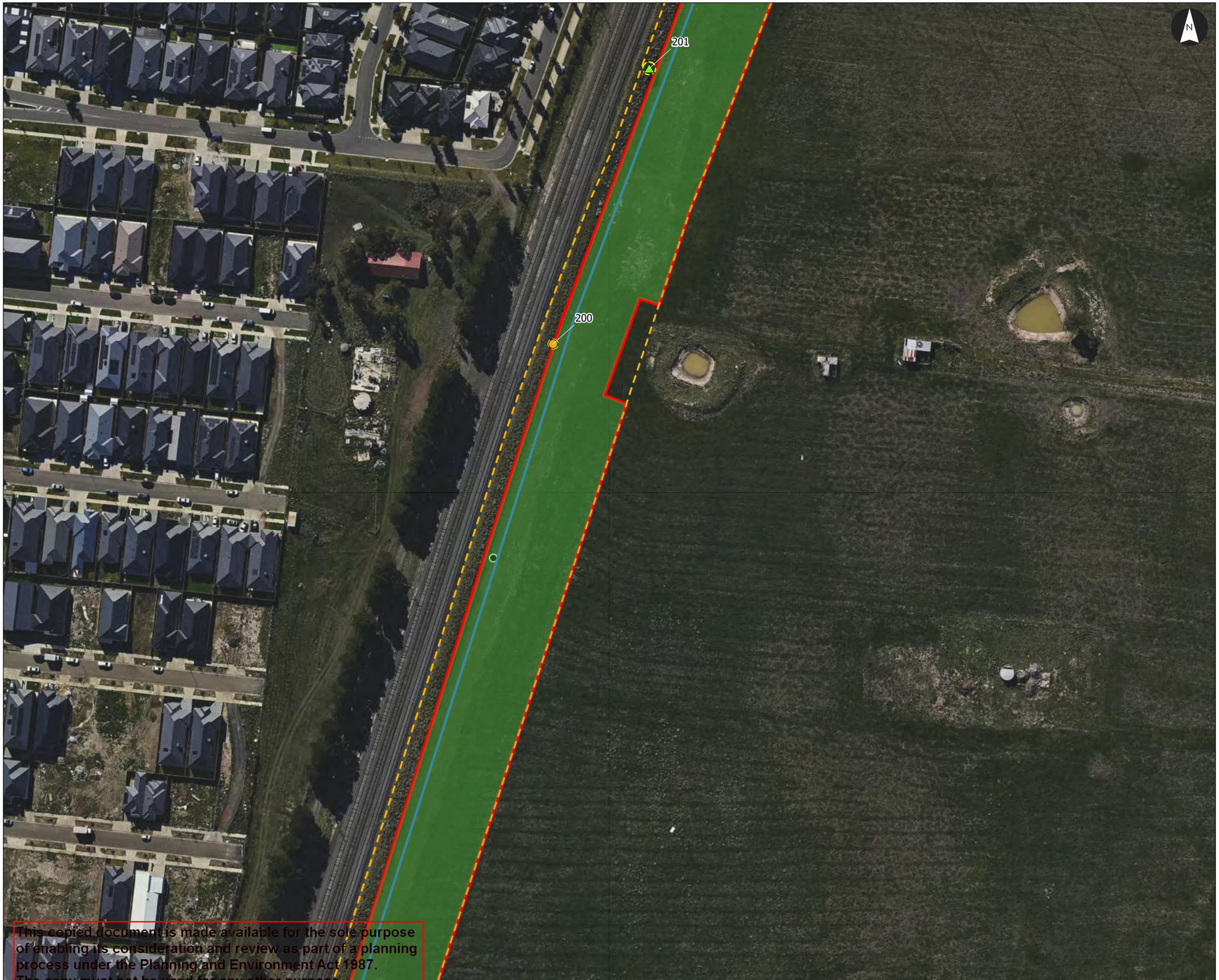

Environmental Mapping

Aurora to Bald Hill Tanks NDW Main – Detailed Design
Aurora, Victoria

Client: Yarra Valley Water
Project Code: 300250010
Drawn By: TG, Checked By: RB
Figure: 3 of 21
Date: 2025-10-30

Legend

Proposed Alignment & Impact Areas

- Construction Corridor
- Pipeline Alignment
- Study Area

Trees

- Amenity (Retain with supervision)
- Native (Retain)
- Notional Root Zone

Impacted Native Vegetation

- Impacted Scattered Native Vegetation

CaLP Listed Species

- CaLP Listed Species

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. Metromap (August 2025)

Stantec

0 15 30 45 60 75 Metres

Scale at A3: 1:1,500



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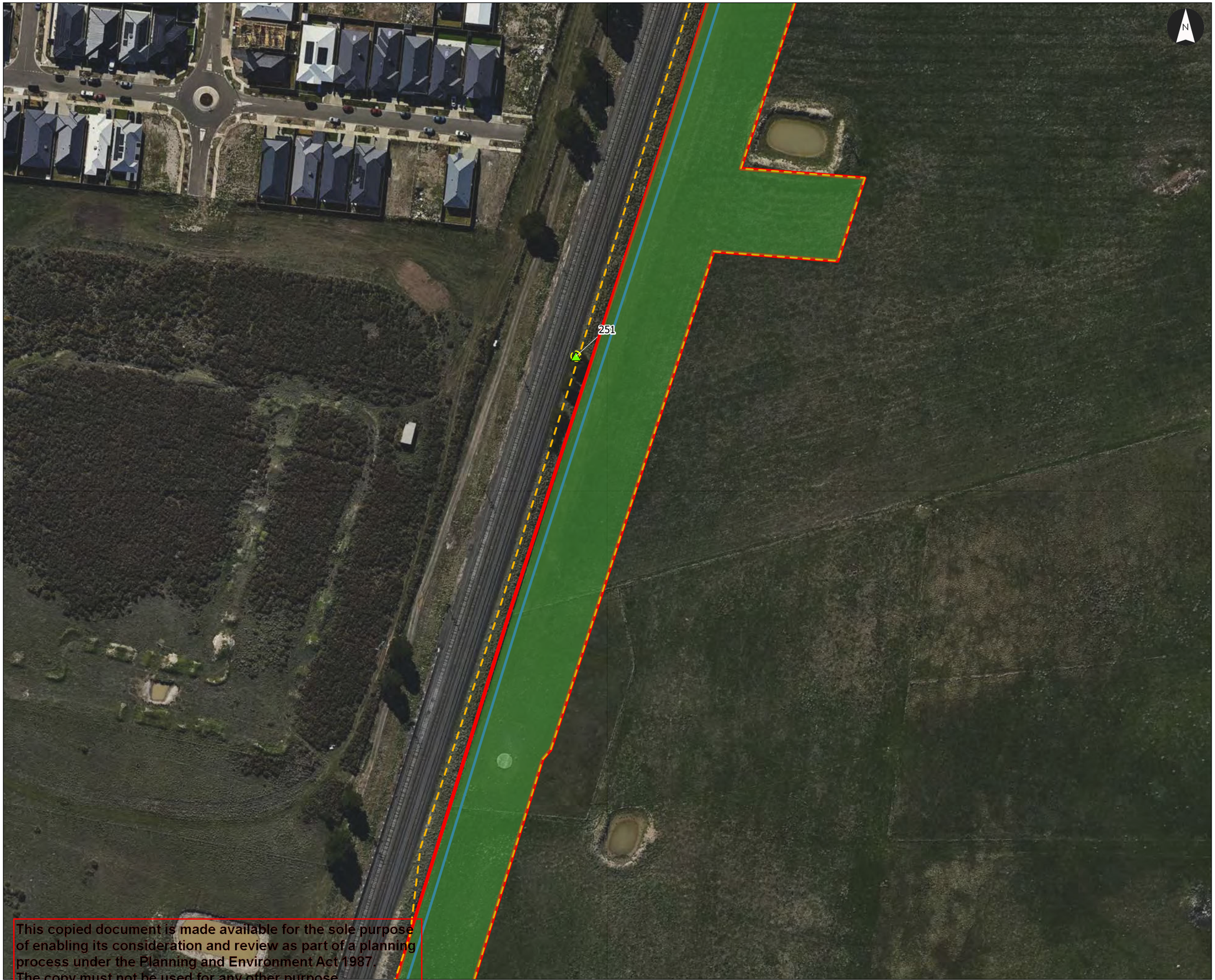

Environmental Mapping

Aurora to Bald Hill Tanks NDW Main – Detailed Design
Aurora, Victoria

Client: Yarra Valley Water
Project Code: 300250010
Drawn By: TG, Checked By: RB
Figure: 4 of 21
Date: 2025-10-30

Legend

Proposed Alignment & Impact Areas

- Construction Corridor
- Pipeline Alignment
- Study Area

Trees

- Native (Retain)
- Notional Root Zone

Impacted Native Vegetation

- Impacted Scattered Native Vegetation

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. Metromap (August 2025)

Stantec

0 15 30 45 60 75 Metres

Scale at A3: 1:1,500



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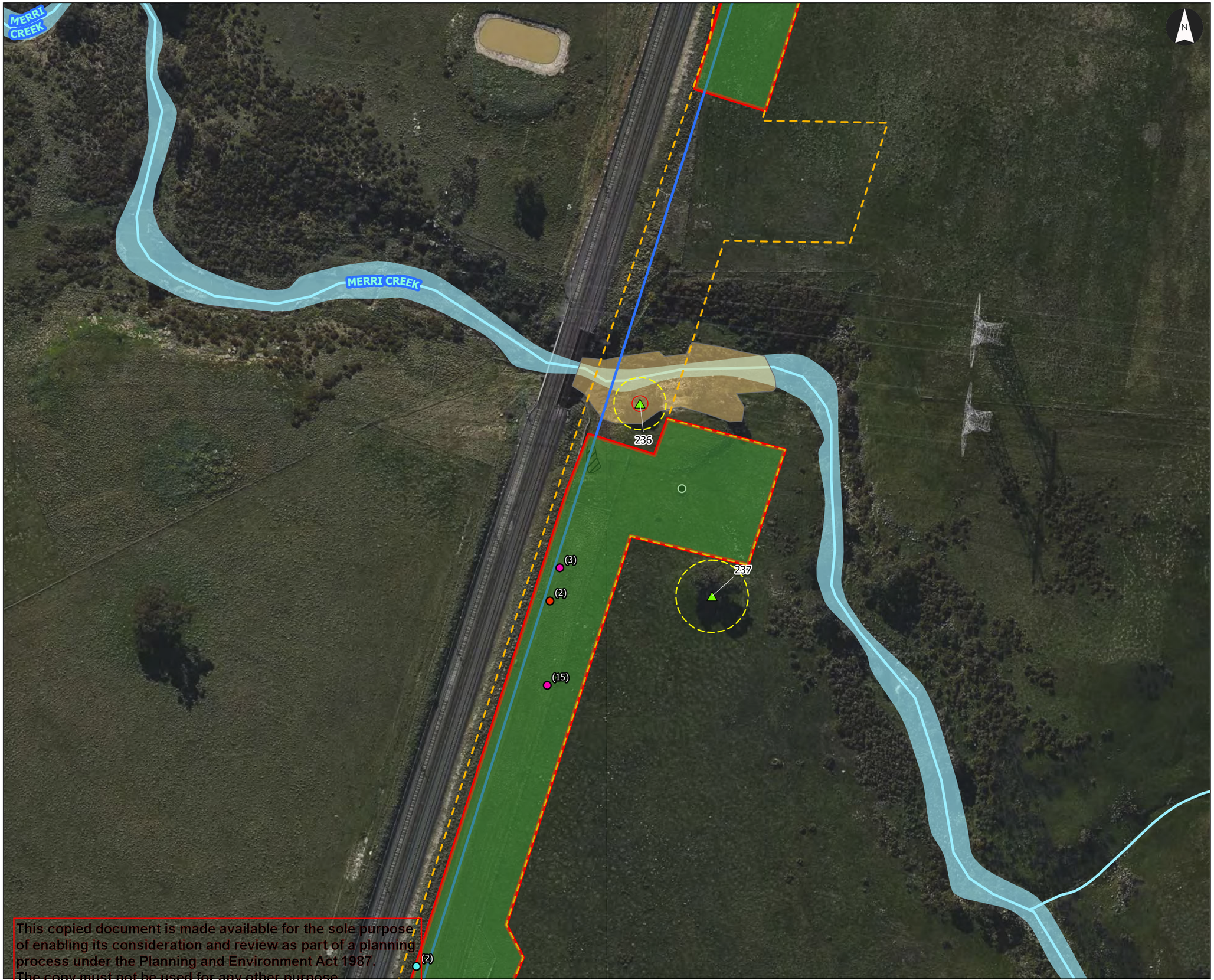

Environmental Mapping

Aurora to Bald Hill Tanks NDW Main – Detailed Design
Aurora, Victoria

Client: Yarra Valley Water
Project Code: 300250010
Drawn By: TG, Checked By: RB
Figure: 5 of 21
Date: 2025-10-30

Legend

Proposed Alignment & Impact Areas
- Construction Corridor
- Pipeline Alignment
- Study Area

Trees
- Native (Retain)
- Notional Root Zone
- Structural Root Zone

Habitat Zones
- Escarpment Shrubland (EVC 895)

Impacted Native Vegetation
- Impacted Scattered Native Vegetation
- Convolvulus sp.
- Juncus sp.
- Tree Violet

CaLP Listed Species
- CaLP Listed Species
- Dense CaLP Listed Species

Hydrology
- Water Course
- Water Body

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. Metromap (August 2025)

Stantec

0 15 30 45 60 75 Metres

Scale at A3: 1:1,500



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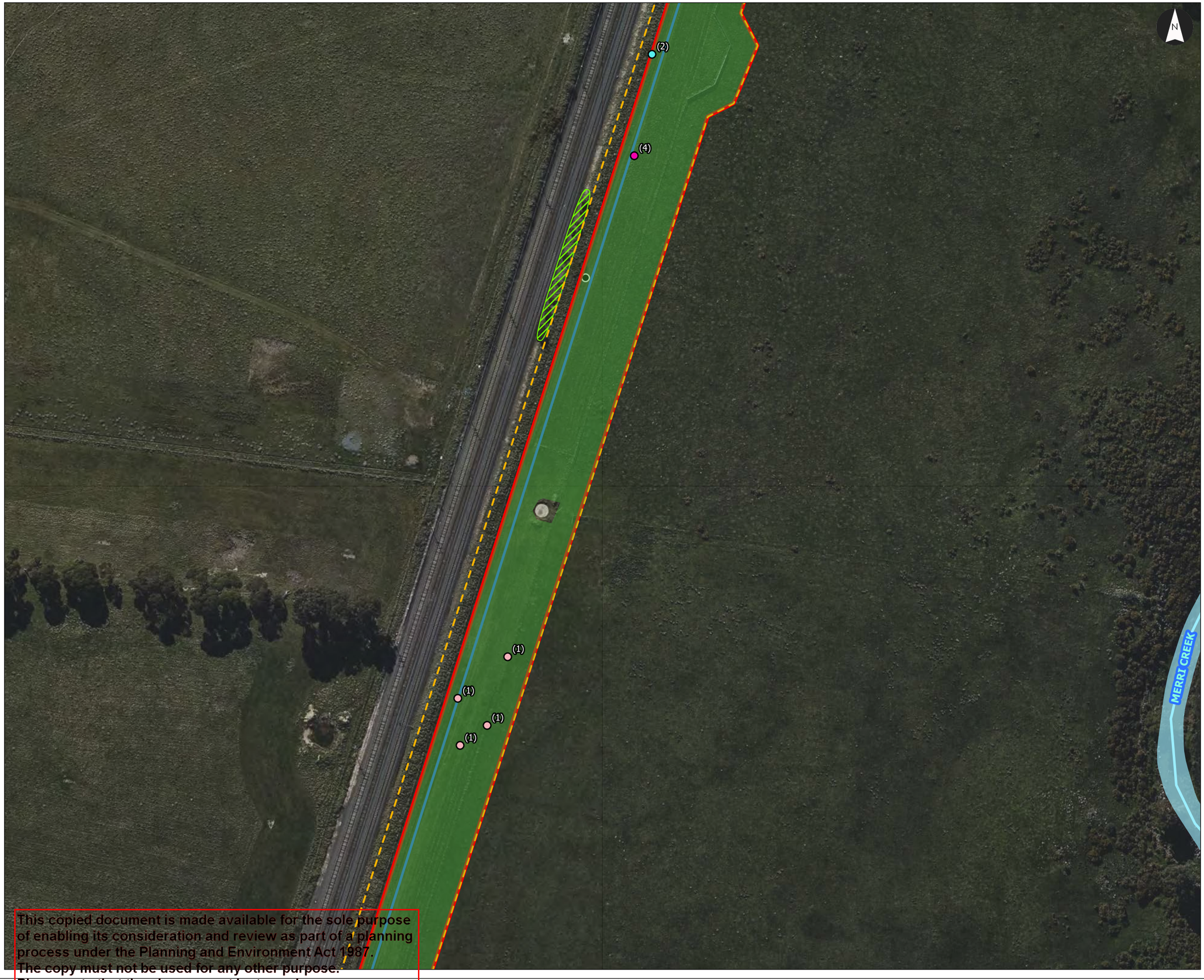

Environmental Mapping

Aurora to Bald Hill Tanks NDW Main – Detailed Design
Aurora, Victoria

Client: Yarra Valley Water
Project Code: 300250010
Drawn By: TG, Checked By: RB
Figure: 6 of 21
Date: 2025-10-30

Legend

Proposed Alignment & Impact Areas

- Construction Corridor
- Pipeline Alignment
- Study Area
- Planted Native Vegetation

Impacted Native Vegetation

- Impacted Scattered Native Vegetation
- Juncus sp.
- Tree Violet
- Wallaby Grass

CaLP Listed Species

- CaLP Listed Species

Hydrology

- Water Course
- Water Body

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. Metromap (August 2025)

Stantec

0 15 30 45 60 75 Metres

Scale at A3: 1:1,500



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Environmental Mapping

Aurora to Bald Hill Tanks NDW Main – Detailed Design
Aurora, Victoria

Client: Yarra Valley Water
Project Code: 300250010
Drawn By: TG, Checked By: RB
Figure: 7 of 21
Date: 2025-10-30

Legend

Proposed Alignment & Impact Areas

- Construction Corridor
- Pipeline Alignment
- Study Area

Retained Native Vegetation (Count on map)

- Geranium sp.

Impacted Native Vegetation

- Scattered Juncus
- Impacted Scattered Native Vegetation
- Convolvulus sp.
- Juncus sp.
- Wallaby Grass

CaLP Listed Species

- Dense CaLP Listed Species

Hydrology

- Water Course

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. Metromap (August 2025)

Stantec

0 15 30 45 60 75 Metres

Scale at A3: 1:1,500



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Environmental Mapping

Aurora to Bald Hill Tanks NDW Main – Detailed Design
Aurora, Victoria

Client: Yarra Valley Water
Project Code: 300250010
Drawn By: TG, Checked By: RB
Figure: 8 of 21
Date: 2025-10-30

Legend

Proposed Alignment & Impact Areas

- Construction Corridor
- Pipeline Alignment
- Study Area

Impacted Native Vegetation

- Scattered Juncus
- Scattered Kangaroo Grasses
- Impacted Scattered Native Vegetation
- Blue Devil
- Brown Back Wallaby Grass
- Convolvulus sp.
- Juncus sp.
- Kangaroo Grass
- Pale Mat-rush
- Wallaby Grass

CaLP Listed Species

- CaLP Listed Species
- Dense CaLP Listed Species

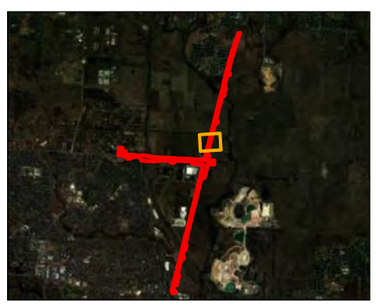
Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. Metromap (August 2025)

Stantec

0 15 30 45 60 75 Metres

Scale at A3: 1:1,500



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Environmental Mapping

Aurora to Bald Hill Tanks NDW Main – Detailed Design
Aurora, Victoria

Client: Yarra Valley Water
Project Code: 300250010
Drawn By: TG, Checked By: RB
Figure: 9 of 21
Date: 2025-10-30

Legend

Proposed Alignment & Impact Areas
- Construction Corridor
- Pipeline Alignment
- Study Area

Trees
- Amenity (Retain)
- Native (Retain)
- Native (Retain with supervision)
- Native (Remove)
- Notional Root Zone
- Structural Root Zone

Habitat Zones
- Plains Grassy Woodland (EVC 132)
- Impacted Habitat Zone

Impacted Native Vegetation
- Scattered Juncus
- Impacted Scattered Native Vegetation
- Fauna Observation

CaLP Listed Species
- CaLP Listed Species

Hydrology
- Water Body

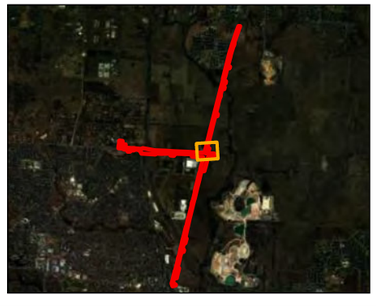
Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. Metromap (August 2025)

Stantec

0 15 30 45 60 75 Metres

Scale at A3: 1:1,500



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Environmental Mapping

Aurora to Bald Hill Tanks NDW Main – Detailed Design
Aurora, Victoria

Client: Yarra Valley Water
Project Code: 300250010
Drawn By: TG, Checked By: RB
Figure: 10 of 21
Date: 2025-10-30

Legend

Proposed Alignment & Impact Areas
- Construction Corridor
- Pipeline Alignment
- Study Area

Trees
- Amenity (Retain)
- Amenity (Remove)
- Native (Retain)
- Native (Retain with supervision)
- Native (Remove)
- Native (Absent at time of assessment)
- Notional Root Zone
- Structural Root Zone

Habitat Zones
- Plains Grassy Woodland (EVC 132)
- Impacted Habitat Zone

Impacted Native Vegetation
- Impacted Scattered Native Vegetation
- Fauna Observation

CaLP Listed Species
- CaLP Listed Species

Hydrology
- Water Body

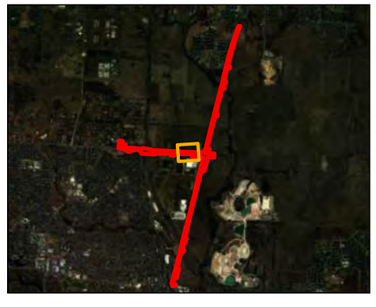
Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. Metromap (August 2025)

Stantec

0 15 30 45 60 75 Metres

Scale at A3: 1:1,500



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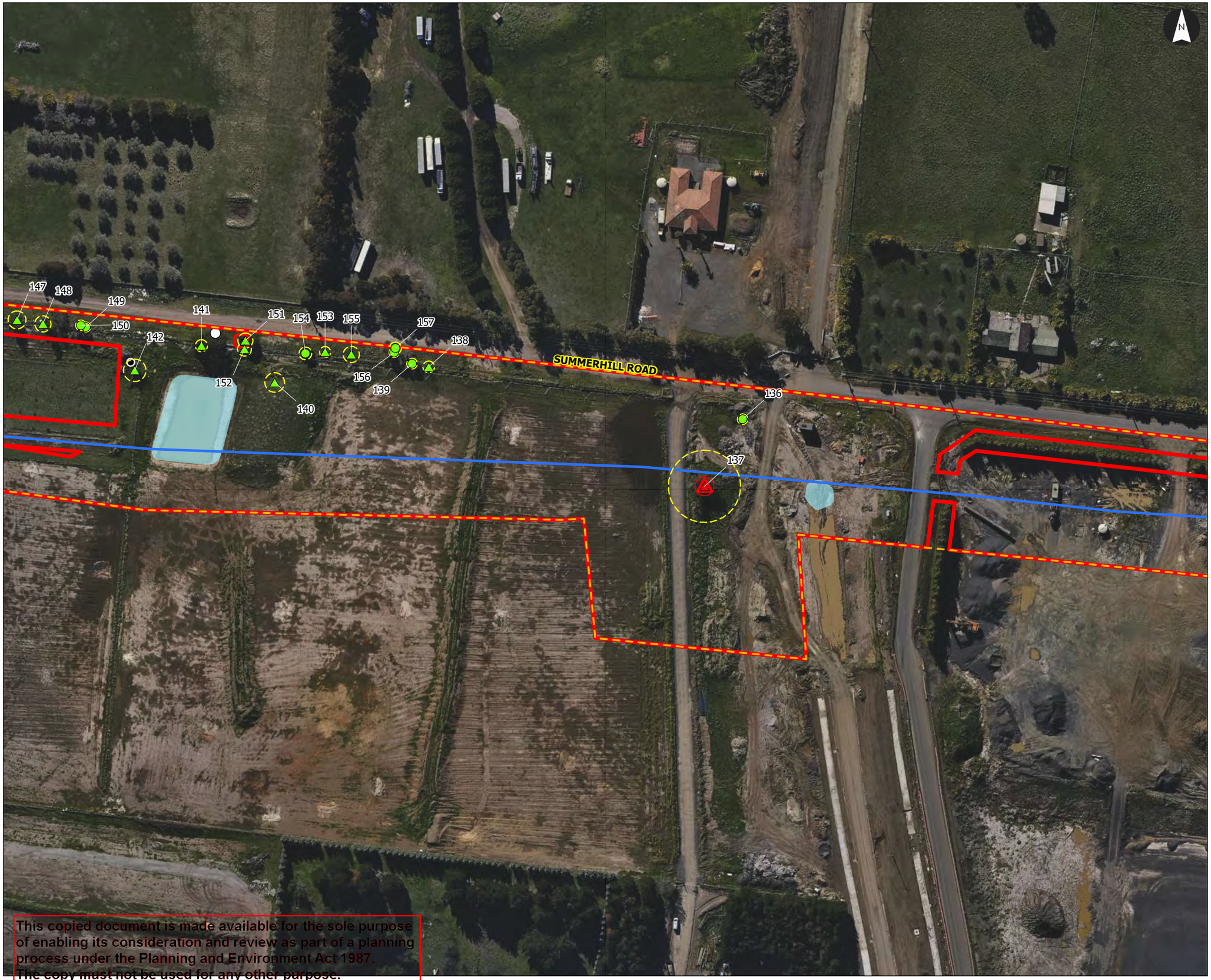


Environmental Mapping

Aurora to Bald Hill Tanks NDW Main – Detailed Design
Aurora, Victoria

Client: Yarra Valley Water
Project Code: 300250010
Drawn By: TG, Checked By: RB
Figure: 11 of 21
Date: 2025-10-30

Legend

Proposed Alignment & Impact Areas

- Construction Corridor
- Pipeline Alignment
- Study Area

Trees

- Amenity (Retain)
- Native (Retain)
- Native (Remove)
- Notional Root Zone
- Structural Root Zone
- Fauna Observation

CaLP Listed Species

- CaLP Listed Species

FFG Species

- Fragrant Saltbush (Impacted)
- Studley Park Gum (Impacted)

Hydrology

- Water Body

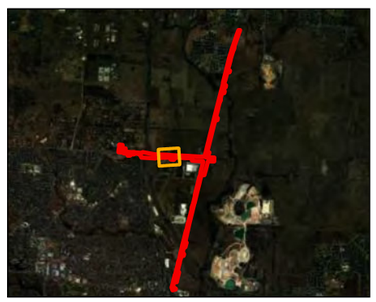
Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. Metromap (August 2025)

Stantec

0 15 30 45 60 75 Metres

Scale at A3: 1:1,500



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Environmental Mapping

Aurora to Bald Hill Tanks NDW Main – Detailed Design
Aurora, Victoria

Client: Yarra Valley Water
Project Code: 300250010
Drawn By: TG, Checked By: RB
Figure: 12 of 21
Date: 2025-10-30

Legend

Proposed Alignment & Impact Areas

- Construction Corridor
- Pipeline Alignment
- Study Area

Trees

- Amenity (Retain)
- Amenity (Remove)
- Amenity (Absent at time of assessment)
- Native (Retain)
- Native (Absent at time of assessment)
- Notional Root Zone
- Structural Root Zone
- Planted Native Vegetation

Impacted Native Vegetation

- Impacted Planted Native Vegetation

CaLP Listed Species

- CaLP Listed Species
- Dense CaLP Listed Species

FFG Species

- Fragrant Saltbush (Not Impacted)

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. Metromap (August 2025)

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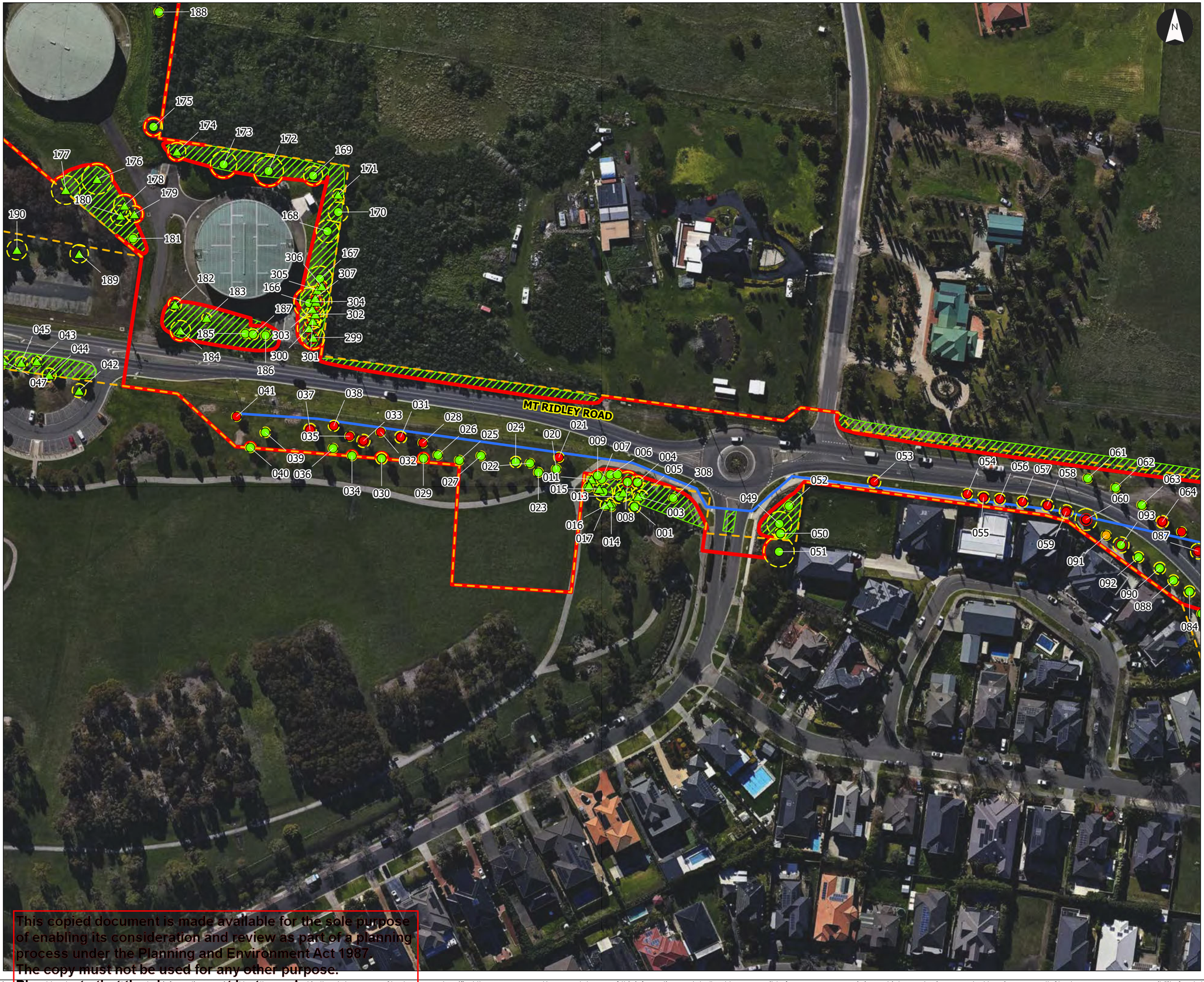


Environmental Mapping

Aurora to Bald Hill Tanks NDW Main – Detailed Design
Aurora, Victoria

Client: Yarra Valley Water
Project Code: 300250010
Drawn By: TG, Checked By: RB
Figure: 13 of 21
Date: 2025-10-30

Legend

Proposed Alignment & Impact Areas

- Construction Corridor
- Pipeline Alignment
- Study Area

Trees

- Amenity (Retain)
- Amenity (Retain with supervision)
- Amenity (Remove)
- Native (Retain)
- Notional Root Zone
- Structural Root Zone
- Planted Native Vegetation

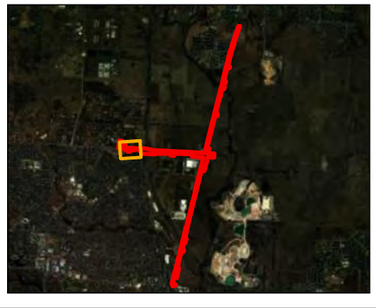
Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. Metromap (August 2025)

Stantec

0 15 30 45 60 75 Metres

Scale at A3: 1:1,500



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Environmental Mapping

Aurora to Bald Hill Tanks NDW Main – Detailed Design
Aurora, Victoria

Client: Yarra Valley Water
Project Code: 300250010
Drawn By: TG, Checked By: RB
Figure: 14 of 21
Date: 2025-10-30

Legend

Proposed Alignment & Impact Areas

- Construction Corridor
- Pipeline Alignment
- Study Area

Trees

- Amenity (Retain)
- Amenity (Remove)
- Native (Retain)
- Native (Remove)
- Notional Root Zone
- Structural Root Zone

Habitat Zones

- Plains Grassy Woodland (EVC 132)
- Impacted Habitat Zone

Impacted Native Vegetation

- Impacted Scattered Native Vegetation

CaLP Listed Species

- CaLP Listed Species

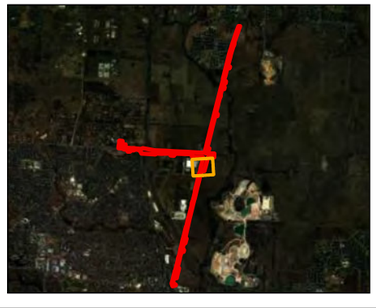
Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. Metromap (August 2025)

Stantec

0 15 30 45 60 75 Metres

Scale at A3: 1:1,500



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Environmental Mapping

Aurora to Bald Hill Tanks NDW Main – Detailed Design
Aurora, Victoria

Client: Yarra Valley Water
Project Code: 300250010
Drawn By: TG, Checked By: RB
Figure: 15 of 21
Date: 2025-10-30

Legend

Proposed Alignment & Impact Areas
- Construction Corridor
- Pipeline Alignment
- Study Area

Trees
- Amenity (Remove)
- Notional Root Zone

Habitat Zones
- Plains Grassy Woodland (EVC 132)

Impacted Native Vegetation
- Impacted Scattered Native Vegetation

CaLP Listed Species
- CaLP Listed Species

Hydrology
- Water Course

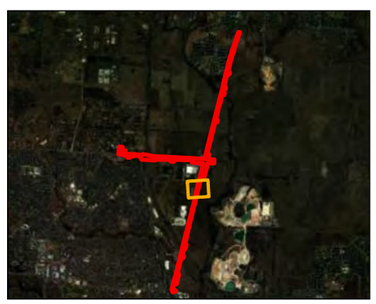
Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. Metromap (August 2025)

Stantec

0 15 30 45 60 75 Metres

Scale at A3: 1:1,500



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Environmental Mapping

Aurora to Bald Hill Tanks NDW Main – Detailed Design
Aurora, Victoria

Client: Yarra Valley Water
Project Code: 300250010
Drawn By: TG, Checked By: RB
Figure: 16 of 21
Date: 2025-10-30

Legend

Proposed Alignment & Impact Areas

- Construction Corridor
- Pipeline Alignment
- Study Area

Trees

- Amenity (Retain)
- Notional Root Zone

Impacted Native Vegetation

- Impacted Scattered Native Vegetation

CaLP Listed Species

- CaLP Listed Species
- Dense CaLP Listed Species

Hydrology

- Water Course

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. Metromap (August 2025)

Stantec

0 15 30 45 60 75 Metres

Scale at A3: 1:1,500



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Environmental Mapping

Aurora to Bald Hill Tanks NDW Main – Detailed Design
Aurora, Victoria

Client: Yarra Valley Water
Project Code: 300250010
Drawn By: TG, Checked By: RB
Figure: 17 of 21
Date: 2025-10-30

Legend

Proposed Alignment & Impact Areas
- Construction Corridor
- Pipeline Alignment
- Study Area

Trees
- Amenity (Retain)
- Amenity (Retain with supervision)
- Notional Root Zone

Impacted Native Vegetation
- Impacted Scattered Native Vegetation

CaLP Listed Species
- CaLP Listed Species

FFG Species
- Fragrant Saltbush (Impacted)

Hydrology
- Water Course

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. Metromap (August 2025)

Stantec

0 15 30 45 60 75 Metres

Scale at A3: 1:1,500



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Environmental Mapping

Aurora to Bald Hill Tanks NDW Main – Detailed Design
Aurora, Victoria

Client: Yarra Valley Water
Project Code: 300250010
Drawn By: TG, Checked By: RB
Figure: 18 of 21
Date: 2025-10-30

Legend

Proposed Alignment & Impact Areas
- Construction Corridor
- Pipeline Alignment
- Study Area

Trees
- Amenity (Retain)
- Native (Retain)
- Native (Retain with supervision)
- Notional Root Zone
- Structural Root Zone

Habitat Zones
- Plains Grassy Woodland (EVC 132)
- Impacted Habitat Zone
- Planted Native Vegetation

Impacted Native Vegetation
- Impacted Scattered Native Vegetation
- Fauna Observation

FFG Species
- Fragrant Saltbush (Impacted)

Hydrology
- Water Course

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. Metromap (August 2025)

Stantec

0 15 30 45 60 75 Metres

Scale at A3: 1:1,500



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Environmental Mapping

Aurora to Bald Hill Tanks NDW Main – Detailed Design
Aurora, Victoria

Client: Yarra Valley Water
Project Code: 300250010
Drawn By: TG, Checked By: RB
Figure: 19 of 21
Date: 2025-10-30

Legend

Proposed Alignment & Impact Areas
- Construction Corridor
- Pipeline Alignment
- Study Area

Trees
- Native (Retain)
- Notional Root Zone

Habitat Zones
- Plains Grassland (EVC 55)
- Impacted Habitat Zone
- Planted Native Vegetation

Impacted Native Vegetation
- Impacted Scattered Native Vegetation

CaLP Listed Species
- CaLP Listed Species
- Dense CaLP Listed Species

Hydrology
- Water Course

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. Metromap (August 2025)

Stantec

0 15 30 45 60 75 Metres

Scale at A3: 1:1,500



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Environmental Mapping

Aurora to Bald Hill Tanks NDW Main – Detailed Design
Aurora, Victoria

Client: Yarra Valley Water
Project Code: 300250010
Drawn By: TG, Checked By: RB
Figure: 20 of 21
Date: 2025-10-30

Legend

Proposed Alignment & Impact Areas
- Construction Corridor
- Pipeline Alignment
- Study Area

Trees
- Amenity (Retain)
- Native (Retain)
- Native (Retain with supervision)
- Notional Root Zone
- Structural Root Zone

Habitat Zones
- Plains Grassland (EVC 55)
- Planted Native Vegetation

Impacted Native Vegetation
- Impacted Scattered Native Vegetation

CaLP Listed Species
- CaLP Listed Species
- Dense CaLP Listed Species

Hydrology
- Water Course

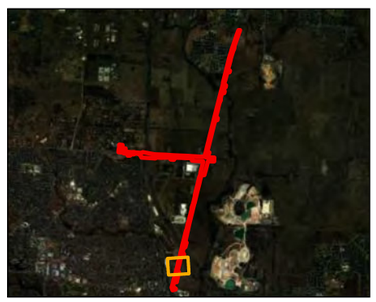
Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. Metromap (August 2025)

Stantec

0 15 30 45 60 75 Metres

Scale at A3: 1:1,500



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Environmental Mapping

Aurora to Bald Hill Tanks NDW Main – Detailed Design
Aurora, Victoria

Client: Yarra Valley Water
Project Code: 300250010
Drawn By: TG, Checked By: RB
Figure: 21 of 21
Date: 2025-10-30

Legend

Proposed Alignment & Impact Areas
- Construction Corridor
- Pipeline Alignment
- Study Area

Trees
- Amenity (Retain)
- Amenity (Remove)
- Native (Retain)
- Notional Root Zone
- Structural Root Zone

Habitat Zones
- Plains Grassland (EVC 55)
- Planted Native Vegetation

Impacted Native Vegetation
- Impacted Scattered Native Vegetation

Hydrology
- Water Course

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. Metromap (August 2025)

Stantec

0 15 30 45 60 75 Metres

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Appendix B: Species Lists

B.1 Flora Species Observed

Flora Observations				
Scientific Name	**Common Name**	**FFG**	**EPBC**	**ORIGIN**
Acacia acinacea	Gold Dust Wattle	Restricted Use		
Acacia baileyana	Cootamundra Wattle			^
Acacia cognata	Bower Wattle			^
Acacia dealbata	Silver Wattle			
Acacia implexa	Lightwood			
Acacia mearnsii	Black Wattle	Restricted Use		
Acacia melanoxylon	Blackwood			
Acacia paradoxa	Hedge Wattle			
Acacia pycnantha	Golden Wattle	Restricted Use		
Acacia retinodes	Wirilda			^
Acacia spp.	Wattle			
Acaena echinata	Sheep's Burr			
Agrostis avenacea	Blown Grass			*
Agrostis spp.	Bent-grass			*
Aira spp.	Hair grass			*
Aizoon pubescens	Blanket Weed			*
Allocasuarina littoralis	Black Sheoak			
Allocasuarina verticillata	Drooping Sheoak			
Almus spp.	Almus tree			*
Anagallis arvensis	Scarlet Pimpernel			*
Angophora costata	Smooth-barked Angophora			^
Atriplex semibaccata	Berry Saltbush			
Atriplex spp.	Saltbush			
Avena fatua	Wild Oat			*
Betula spp.	Birch			*
Brachychiton populneus	Kurrajong			^
Brassica spp.	Wild Mustard			*
Bromus hordeaceus	Soft Brome			*
Bromus spp.	Prairie Grass			*
Bursaria spinosa	Sweet Bursaria			
Callistemon macropunctatus	Scarlet Bottlebrush			^
Calocephalus citreus	Lemon Beauty-heads			
Cassinia sifton	Sifton Bush			^
Casuarina spp.	Sheoak			
Cheilanthes austrotenuifolia	Rock Fern	Restricted Use		
Chenopodium album	Fat Hen Chenopodium			*
Chloris truncata	Windmill Grass			
Chrysocephalum spp.	Everlasting	Restricted Use		
Cirsium vulgare	Spear Thistle			*C
Convolvulus angustissimus	Pink Bindweed			
Coprosma repens	Mirror Bush			*

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Flora Observations				
Scientific Name	**Common Name**	**FFG**	**EPBC**	**ORIGIN**
Correa spp.	Correa	Restricted Use		^
Corymbia maculata	Spotted Gum	Vulnerable		^
Cupressus macrocarpa	Monterey Cypress			*
Cynara cardunculus	Artichoke Thistle			*C
Cyperus eragrostis	Drain Flat Sedge			*
Cytisus proliferus	Tree Lucerne			*
Dactylis glomerata	Cocksfoot			*
Dianella revoluta var. revoluta	Black-anther Flax-lily			
Dietes spp.	Iris			*
Echium plantagineum	Patersons Curse			*C
Ehrharta spp.	Veldt-grass			*
Einadia nutans subsp. *nutans*	Nodding Saltbush			
Elymus repens	Couch Grass			*
Enchylaena tomentosa	Ruby Saltbush			
Erigeron bonariensis	Fleabane			*
Eryngium ovinum	Blue Devil			
Eucalyptus camaldulensis	River Red Gum			
Eucalyptus cladocalyx	Sugar Gum			^
Eucalyptus globulus	Tasmanian Blue Gum			^
Eucalyptus leucoxylon	Yellow Gum			
Eucalyptus leucoxylon var. rosea	Pink-flowered Blue Gum			^
Eucalyptus melliodora	Yellow Box			
Eucalyptus ovata	Swamp Gum			
Eucalyptus polyanthemos	Red Box			
Eucalyptus sideroxylon subsp. sideroxylon	Red Ironbark	Endangered		
Eucalyptus spp.	Gum			
Eucalyptus xstudleyensis	Studley Park Gum	Critically Endangered		
Euchiton spp.	Euchiton			
Ficinia nodosa	Club Rush			
Ficus spp.	Fig			*
Fraxinus angustifolia	Desert Ash			*
Geranium spp.	Crane's Bill			*
Goodenia ovata	Hop Goodenia			
Grevillea spp.	Grevillea	Restricted Use		^
Helichrysum luteoalbum	Jersey Cudweed	Restricted Use		
Helminthotheca echioides	Ox Tongue			*
Hypochaeris radicata	Cats Ear			*
Juncus acutus	Spiny Rush			*C
Juncus effusus	Bog Rush			*
Juncus ingens	Giant Rush			
Juncus spp.	Rush			*
Leptospermum spp.	Tea Tree			
Lolium spp.	Ryegrass			*

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Flora Observations				
Scientific Name	**Common Name**	**FFG**	**EPBC**	**ORIGIN**
Lomandra longifolia	Spiny-head Mat-rush			
Lomandra nana	Pale Mat-rush			
Lupinus spp.	Lupine			*
Lycium ferocissimum	African Boxthorn			*C
Lythrum hyssopifolia	Lesser Loosestrife			*
Malva spp.	Mallow			*
Marrubium vulgare	Horehound			*C
Medicago spp.	Medic			*
Melaleuca armillaris	Giant Honey Myrtle	Endangered		^
Melaleuca spp.	Melaleuca			
Melaleuca viminalis	Callistemon Little John			^
Melicytus dentatus	Tree Violet			
Nasella neesiana	Chilean Needle Grass			*C
Nassella trichotoma	Serrated Tussock			*C
Olea europaea	Olive			*
Onopordum acanthium	Scotch Thistle			*C
Oxalis spp.	Clover			*
Paspalum dilatatum	Dallas Grass			*
Paspalum spp.	Paspalum			*
Pennisetum clandestinum	Kikiyu			*
Phalaris spp.	Phalaris			*
Phragmites australis	Phragmites			
Pinus radiata	Radiata Pine			*
Plantago coronopus	Buckhorns Plaintain			*
Plantago lanceolata	Ribwort			*
Poa spp.	Tussock Grass			
Polygonum erectum	Wire Weed			*
Prunus cerasifera	Cherry Plum			*
Prunus spp.	Plum Tree			*
Rhagodia parabolica	Fragrant Saltbush	Threatened		^
Romulea rosea	Onion Grass			*
Rosa rubiginosa	Sweet Briar			*C
Rubus fruticosus spp. agg.	Blackberry			*C
Rumex brownii	Slender Dock			
Rumex spp.	Dock			*
Rytidosperma duttonianum	Brown-back Wallaby-grass			
Rytidosperma spp.	Wallaby Grass			
Salix spp.	Willow			*
Schinus molle	Peppercorn			*
Silybum marianum	Variegated Thistle			*C
Solanum nigrum s.l.	Black Nightshade			*
Sonchus spp.	Sow Thistle			*
Sporobolus spp.	Rat's Tail Grass			*
Stipa spp.	Spear Grass			
Symphyotrichum subulatum	Water Aster			*

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Flora Observations				
Scientific Name	**Common Name**	**FFG**	**EPBC**	**ORIGIN**
Themeda triandra	Kangaroo Grass			
Trifolium arvense	Hare's-foot Clover			*
Trifolium dubium	Lesser Trefoil			*
Trifolium pratense	Red Clover			*
Trifolium repens	White Clover			*
Typha latifolia	Cumbungi			*
Ulex europaeus	Gorse			*C
Ulmus minor	Field Elm			*
Vicia sativa	Vetch			*C
Vinca major	Periwinkle			*
Vulpia spp.	Fescue			*
Wahlenbergia spp.	Bluebell			
Watsonia meriana	Watsonia			*C
Westringia spp.	Westringia			

Origin: * - Introduced species, ^ - Native but some stands may be alien, C - CaLP

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B.2 Fauna Species Observed

Fauna Observations				
Scientific Name	**Common Name**	**FFG**	**EPBC**	**ORIGIN**
Acanthiza chrysorrhoa	Yellow Rumped Thornbill			
Acridotheres tristis	Indian Myna			*
Anas superciliosa	Pacific Black Duck			
Anthochaera chrysoptera	Little Wattlebird			
Apis mellifera	European Honeybee			*
Callocephalon fimbriatum	Gang-gang Cockatoo			
Carduelis carduelis	European Goldfinch			*
Chenonetta jubata	Australian Wood Duck			
Cisticola exilis	Golden-headed Cisticola			*
Coracina novaehollandiae	Black-faced Cuckooshrike			
Corvus sp.	Raven			
Coturnix ypsilophora	Brown Quail			
Crinia signifera	Common Eastern Froglet			
Ctenotus sp.	Ctenotus Skink			
Danaus plexippus	Monarch Butterfly			
Egretta novaehollandiae	White Faced Heron			
Elanus axillaris	Black Shouldered Kite			
Epthianura albifrons	White Fronted Chat			
Grallina cyanoleuca	Magpie-lark			
Gymnorhina tibicen	Australian Magpie			
Hirundo neoxena	Welcome Swallow			
Lepus europaeus	European Hare			*
Limnodynastes tasmaniensis	Spotted Marsh Frog			
Litoria verreauxii	Whistling Tree Frog			
Macropus giganteus	Eastern Grey Kangaroo			
Malurus cyaneus	Superb Fairy Wren			
Manorina melanocephala	Noisy Miner			
Ocyphaps lophotes	Crested Pigeon			
Oryctolagus cuniculus	European Rabbit			*
Passer domesticus	Sparrow			*
Rhipidura leucophrys	Willie Wagtail			
Sturnus vulgaris	Common Starling			
Symphyta spp.	Sawfly Larvae			
Threskiornis spinicollis	Straw-necked Ibis			
Trichoglossus moluccanus	Rainbow Lorikeet			
Turdus merula	Common Blackbird			
Vulpes vulpes	European Red Fox			*

* Introduced species

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B.3 Tree Table

Tree ID	Scientific Name	Common Name	DSH	NRZ	Origin	FFG	Habitat^	Arborist Assessed	Retention Status
001	Eucalyptus sp.	Eucalypt	0.21	2.52	Amenity	No	No	No	Retain
002	Bursaria spinosa	Sweet Bursaria	0.19	2.28	Native	No	No	No	Retain
003	Bursaria spinosa	Sweet Bursaria	0.15	2	Native	No	No	No	Retain
004	Eucalyptus leucoxylon	Yellow Gum	0.22	2.64	Amenity	No	No	Yes	Retain
005	Bursaria spinosa	Sweet Bursaria	0.12	2	Native	No	No	No	Retain
006	Bursaria spinosa	Sweet Bursaria	0.15	2	Amenity	No	No	Yes	Retain
007	Bursaria spinosa	Sweet Bursaria	0.15	2	Amenity	No	No	Yes	Retain
008	Allocasuarina verticillata	Drooping Sheoak	0.36	4.32	Amenity	No	No	Yes	Retain
009	Bursaria spinosa	Sweet Bursaria	0.15	2	Amenity	No	No	Yes	Retain
010	Allocasuarina verticillata	Drooping Sheoak	0.31	3.72	Native	No	No	No	Retain
011	Bursaria spinosa	Sweet Bursaria	0.12	2	Amenity	No	No	No	Retain
012	Bursaria spinosa	Sweet Bursaria	0.14	2	Amenity	No	No	No	Retain
013	Eucalyptus sp.	Eucalypt	0.23	2.76	Amenity	No	No	No	Retain
014	Eucalyptus sp.	Eucalypt	0.11	2	Amenity	No	No	No	Retain
015	Callistemon macropunctatus	Scarlet Bottlebrush	0.24	2.88	Amenity	No	No	No	Retain
016	Bursaria spinosa	Sweet Bursaria	0.18	2.16	Amenity	No	No	No	Retain
017	Bursaria spinosa	Sweet Bursaria	0.1	2	Amenity	No	No	No	Retain
018	Eucalyptus sp.	Eucalypt	0.16	2	Amenity	No	No	No	Retain
019	Eucalyptus sp.	Eucalypt	0.32	3.84	Amenity	No	No	No	Retain
020	Eucalyptus sp.	Eucalypt	0.11	2	Amenity	No	No	No	Retain
021	Eucalyptus leucoxylon	Yellow Gum	0.18	2.16	Amenity	No	No	Yes	Remove
022	Eucalyptus leucoxylon	Yellow Gum	0.15	2	Amenity	No	No	Yes	Retain
023	Eucalyptus sp.	Eucalypt	0.17	2.04	Amenity	No	No	No	Retain
024	Eucalyptus sp.	Eucalypt	0.2	2.4	Amenity	No	No	No	Retain
025	Eucalyptus leucoxylon	Yellow Gum	0.12	2	Amenity	No	No	Yes	Retain
026	Eucalyptus leucoxylon	Yellow Gum	0.1	2	Amenity	No	No	Yes	Retain
027	Eucalyptus leucoxylon	Yellow Gum	0.15	2	Amenity	No	No	Yes	Retain

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Tree ID	Scientific Name	Common Name	DSH	NRZ	Origin	FFG	Habitat^	Arborist Assessed	Retention Status
028	Eucalyptus leucoxylon	Yellow Gum	0.11	2	Amenity	No	No	Yes	Remove
029	Eucalyptus leucoxylon	Yellow Gum	0.15	2	Amenity	No	No	Yes	Retain
030	Eucalyptus leucoxylon	Yellow Gum	0.2	2.4	Amenity	No	No	Yes	Retain
031	Eucalyptus leucoxylon	Yellow Gum	0.21	2.52	Amenity	No	No	Yes	Remove
032	Eucalyptus leucoxylon	Yellow Gum	0.11	2	Amenity	No	No	Yes	Remove
033	Eucalyptus leucoxylon	Yellow Gum	0.23	2.76	Amenity	No	No	Yes	Remove – practical retention possible
034	Eucalyptus leucoxylon	Yellow Gum	0.05	2	Amenity	No	No	Yes	Retain
035	Eucalyptus leucoxylon	Yellow Gum	0.13	2	Amenity	No	No	Yes	Remove
036	Eucalyptus leucoxylon	Yellow Gum	0.16	2	Amenity	No	No	Yes	Retain
037	Eucalyptus polyanthemos	Red Box	0.22	2.64	Amenity	No	No	Yes	Remove
038	Eucalyptus polyanthemos	Red Box	0.19	2.28	Amenity	No	No	Yes	Remove
039	Eucalyptus leucoxylon	Yellow Gum	0.18	2.16	Amenity	No	No	Yes	Retain
040	Eucalyptus sp.	Eucalypt	0.17	2.04	Amenity	No	No	No	Retain
041	Eucalyptus leucoxylon	Yellow Gum	0.15	2	Amenity	No	No	Yes	Remove
042	Allocasuarina verticillata	Drooping Sheoak	0.24	2.88	Amenity	No	No	No	Retain
043	Allocasuarina verticillata	Drooping Sheoak	0.16	2	Amenity	No	No	No	Retain
044	Allocasuarina verticillata	Drooping Sheoak	0.24	2.88	Amenity	No	No	No	Retain
045	Allocasuarina verticillata	Drooping Sheoak	0.21	2.52	Amenity	No	No	No	Retain
046	Allocasuarina verticillata	Drooping Sheoak	0.15	2	Amenity	No	No	No	Retain
047	Allocasuarina verticillata	Drooping Sheoak	0.16	2	Amenity	No	Yes	No	Retain
048	Eucalyptus sp.	Eucalypt	0.21	2.52	Amenity	No	No	No	Retain
049	Angophora costata	Smooth-barked Angophora	0.43	5.16	Amenity	No	No	No	Retain
050	Angophora costata	Smooth-barked Angophora	0.2	2.4	Amenity	No	No	No	Retain
051	Angophora costata	Smooth-barked Angophora	0.53	6.36	Amenity	No	No	No	Retain
052	Angophora costata	Smooth-barked Angophora	0.2	2	Amenity	No	No	No	Retain
053	Eucalyptus polyanthemos	Red Box	0.23	2.76	Amenity	No	No	Yes	Remove
054	Eucalyptus polyanthemos	Red Box	0.19	2.28	Amenity	No	No	Yes	Remove
055	Eucalyptus polyanthemos	Red Box	0.21	2.52	Amenity	No	No	Yes	Remove

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Tree ID	Scientific Name	Common Name	DSH	NRZ	Origin	FFG	Habitat^	Arborist Assessed	Retention Status
056	Eucalyptus melliodora	Yellow Box	0.2	2.4	Amenity	No	No	Yes	Remove
057	Eucalyptus melliodora	Yellow Box	0.2	2.4	Amenity	No	No	Yes	Remove
058	Eucalyptus melliodora	Yellow Box	0.22	2.64	Amenity	No	No	Yes	Remove
059	Eucalyptus melliodora	Yellow Box	0.24	2.88	Amenity	No	No	Yes	Remove
060	Acacia melanoxylon	Blackwood	0.38	4.56	Amenity	No	No	Yes	Remove
061	Corymbia maculata	Spotted Gum	0.08	2	Amenity	No	No	No	Retain
062	Corymbia maculata	Spotted Gum	0.15	2	Amenity	No	No	No	Retain
063	Corymbia maculata	Spotted Gum	0.14	2	Amenity	No	No	No	Retain
064	Corymbia maculata	Spotted Gum	0.22	2.64	Amenity	No	No	Yes	Remove
065	Angophora costata	Smooth-barked Angophora	0.79	9.48	Amenity	No	No	No	Retain
066	Eucalyptus sideroxylon	Red Ironbark	0.48	5.76	Native	No	No	No	Retain
067	Angophora costata	Smooth-barked Angophora	0.22	2.64	Amenity	No	No	No	Retain
068	Angophora costata	Smooth-barked Angophora	0.21	2.52	Amenity	No	No	No	Retain
069	Angophora costata	Smooth-barked Angophora	0.18	2.16	Amenity	No	No	No	Retain
070	Angophora costata	Smooth-barked Angophora	0.12	2	Amenity	No	No	No	Retain
071	Angophora costata	Smooth-barked Angophora	0.1	2	Amenity	No	No	No	Retain
072	Angophora costata	Smooth-barked Angophora	0.09	2	Amenity	No	No	No	Retain
073	Angophora costata	Smooth-barked Angophora	0.15	2	Amenity	No	No	No	Retain
074	Angophora costata	Smooth-barked Angophora	0.15	2	Amenity	No	No	No	Retain
075	Angophora costata	Smooth-barked Angophora	0.15	2	Amenity	No	No	No	Retain
076	Acacia melanoxylon	Blackwood	0.34	4.08	Amenity	No	No	No	Retain
077	Angophora costata	Smooth-barked Angophora	0.18	2.16	Amenity	No	No	No	Retain
078	Angophora costata	Smooth-barked Angophora	0.12	2	Amenity	No	No	No	Retain
079	Angophora costata	Smooth-barked Angophora	0.15	2	Amenity	No	No	No	Retain
080	Angophora costata	Smooth-barked Angophora	0.12	2	Amenity	No	No	No	Retain
081	Acacia melanoxylon	Blackwood	0.36	4.32	Amenity	No	No	No	Retain
082	Eucalyptus sp.	Eucalypt	0.09	2	Amenity	No	No	No	Retain
083	Eucalyptus sp.	Eucalypt	0.12	2	Amenity	No	No	No	Retain
084	Eucalyptus sp.	Eucalypt	0.2	2.4	Amenity	No	No	No	Retain

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Tree ID	Scientific Name	Common Name	DSH	NRZ	Origin	FFG	Habitat^	Arborist Assessed	Retention Status
085	Stag	Stag	0.31	3.72	Amenity	No	No	No	Retain
086	Corymbia maculata	Spotted Gum	0.15	2	Amenity	Yes*	No	No	Retain
087	Corymbia maculata	Spotted Gum	0.27	3.24	Amenity	Yes*	No	Yes	Remove
088	Eucalyptus sp.	Eucalypt	0.19	2.28	Amenity	No	No	No	Retain
089	Corymbia maculata	Spotted Gum	0.17	2.04	Amenity	Yes*	No	Yes	Remove
090	Eucalyptus sp.	Eucalypt	0.21	2.52	Amenity	No	No	No	Retain
091	Eucalyptus polyanthemos	Red Box	0.17	2.04	Amenity	No	No	Yes	Retain with supervision
092	Eucalyptus sp.	Eucalypt	0.19	2.28	Amenity	No	No	No	Retain
093	Eucalyptus polyanthemos	Red Box	0.28	3.36	Amenity	No	No	Yes	Retain
094	Eucalyptus camaldulensis	River Red Gum	0.71	8.52	Native	No	Yes	No	Retain
095	Eucalyptus camaldulensis	River Red Gum	0.31	3.72	Native	No	No	No	Retain
096	Eucalyptus camaldulensis	River Red Gum	1.35	15	Native	No	No	No	Retain
097	Cupressus macrocarpa	Monterey Cypress	0.24	2.88	Amenity	No	No	No	Retain
098	Eucalyptus camaldulensis	River Red Gum	0.85	10.2	Native	No	No	No	Retain
099	Eucalyptus sp.	Gum	0.26	3.12	Native	No	No	No	Retain
100	Eucalyptus sp.	Gum	0.17	2.04	Native	No	No	No	Retain
101	Eucalyptus camaldulensis	River Red Gum	1.23	14.76	Native	No	No	Yes	Retain with supervision
102	Eucalyptus camaldulensis	River Red Gum	1.24	14.88	Native	No	No	No	Retain
103	Eucalyptus camaldulensis	River Red Gum	1.06	12.72	Native	No	Yes	Yes	Absent at time of assessment
104	Eucalyptus camaldulensis	River Red Gum	1.59	15	Native	No	No	Yes	Retain with supervision
105	Eucalyptus camaldulensis	River Red Gum	0.92	11.04	Native	No	Yes	Yes	Retain
106	Eucalyptus camaldulensis	River Red Gum	0.82	9.84	Native	No	Yes	Yes	Retain
107	Eucalyptus camaldulensis	River Red Gum	0.92	11.04	Native	No	Yes	Yes	Retain with supervision
108	Eucalyptus camaldulensis	River Red Gum	0.3	3.6	Native	No	No	Yes	Remove
109	Acacia melanoxylon	Blackwood	0.32	3.84	Native	No	No	No	Retain with supervision
110	Eucalyptus camaldulensis	River Red Gum	1.64	15	Native	No	Yes	Yes	Retain with supervision
111	Eucalyptus camaldulensis	River Red Gum	0.76	9.12	Native	No	Yes	Yes	Retain with supervision
112	Eucalyptus sideroxylon	Red Ironbark	0.39	4.68	Native	No	No	No	Retain

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Tree ID	Scientific Name	Common Name	DSH	NRZ	Origin	FFG	Habitat^	Arborist Assessed	Retention Status
113	Acacia melanoxylon	Blackwood	0.39	4.68	Native	No	No	No	Retain
114	Eucalyptus camaldulensis	River Red Gum	0.26	3.12	Native	No	No	No	Retain
115	Eucalyptus camaldulensis	River Red Gum	0.42	5.04	Native	No	No	No	Retain
116	Eucalyptus camaldulensis	River Red Gum	0.55	6.6	Native	No	No	No	Retain
117	Eucalyptus camaldulensis	River Red Gum	0.2	2.4	Native	No	No	No	Retain
118	Corymbia maculata	Spotted Gum	0.26	3.12	Amenity	Yes*	No	No	Retain
119	Eucalyptus camaldulensis	River Red Gum	0.3	3.6	Native	No	No	No	Retain
120	Eucalyptus camaldulensis	River Red Gum	0.48	5.76	Native	No	No	No	Retain
121	Eucalyptus camaldulensis	River Red Gum	0.43	5.16	Native	No	No	No	Retain
122	Eucalyptus camaldulensis	River Red Gum	0.28	3.36	Native	No	No	Yes	Retain
123	Eucalyptus camaldulensis	River Red Gum	0.34	4.08	Native	No	No	Yes	Retain
124	Eucalyptus sideroxylon	Red Ironbark	0.36	4.32	Native	No	No	Yes	Retain
125	Eucalyptus sideroxylon	Red Ironbark	0.48	5.76	Native	No	No	Yes	Retain
126	Eucalyptus camaldulensis	River Red Gum	0.91	10.92	Native	No	No	No	Retain
127	Eucalyptus camaldulensis	River Red Gum	0.68	8.16	Native	No	No	No	Retain
128	Eucalyptus camaldulensis	River Red Gum	0.76	9.12	Native	No	No	No	Retain
129	Eucalyptus camaldulensis	River Red Gum	0.61	7.32	Native	No	No	No	Retain
130	Eucalyptus camaldulensis	River Red Gum	1.24	14.88	Native	No	No	No	Retain
131	Eucalyptus camaldulensis	River Red Gum	0.92	11.04	Native	No	No	No	Retain
132	Eucalyptus camaldulensis	River Red Gum	0.53	6.36	Native	No	No	No	Retain
133	Eucalyptus camaldulensis	River Red Gum	0.92	11.04	Native	No	No	No	Retain
134	Eucalyptus camaldulensis	River Red Gum	1	12	Native	No	No	No	Retain
135	Eucalyptus camaldulensis	River Red Gum	0.51	6.12	Native	No	No	No	Retain
136	Acacia mearnsii	Black Wattle	0.18	2.16	Amenity	No	No	Yes	Retain
137	Eucalyptus xstudleyensis	Studley Park Gum	1.4	15	Native	Yes	Yes	Yes	Remove
138	Acacia mearnsii	Black Wattle	0.2	2.4	Native	No	No	No	Retain
139	Melaleuca armillaris	Giant Honey Myrtle	0.18	2.16	Amenity	No	No	No	Retain
140	Acacia mearnsii	Black Wattle	0.34	4.08	Native	No	No	No	Retain
141	Acacia mearnsii	Black Wattle	0.21	2.52	Native	No	No	No	Retain

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Tree ID	Scientific Name	Common Name	DSH	NRZ	Origin	FFG	Habitat^	Arborist Assessed	Retention Status
142	Acacia mearnsii	Black Wattle	0.39	4.68	Native	No	No	No	Retain
143	Acacia mearnsii	Black Wattle	0	2	Native	No	No	Yes	Absent at time of assessment
144	Salix sp.	Willow	0.45	5.4	Amenity	No	No	Yes	Absent at time of assessment
145	Melaleuca armillaris	Giant Honey Myrtle	0.36	4.32	Amenity	No	Yes	No	Retain
146	Acacia mearnsii	Black Wattle	0.12	2	Native	No	No	No	Retain
147	Acacia mearnsii	Black Wattle	0.31	3.72	Native	No	No	No	Retain
148	Acacia mearnsii	Black Wattle	0.28	3.36	Native	No	No	No	Retain
149	Eucalyptus sp.	Gum	0.05	2	Amenity	No	No	No	Retain
150	Eucalyptus leucoxylon var. rosea	Pink-flowered Blue Gum	0.18	2.16	Amenity	No	No	No	Retain
151	Acacia mearnsii	Black Wattle	0.26	3.12	Native	No	No	No	Retain
152	Acacia mearnsii	Black Wattle	0.24	2.88	Native	No	No	No	Retain
153	Acacia mearnsii	Black Wattle	0.19	2.28	Native	No	No	No	Retain
154	Angophora costata	Smooth-barked Angophora	0.22	2.64	Amenity	No	No	No	Retain
155	Acacia mearnsii	Black Wattle	0.28	3.36	Native	No	No	No	Retain
156	Eucalyptus leucoxylon var. rosea	Pink-flowered Blue Gum	0.13	2	Amenity	No	No	No	Retain
157	Eucalyptus leucoxylon var. rosea	Pink-flowered Blue Gum	0.21	2.52	Amenity	No	No	No	Retain
158	Eucalyptus sp.	Gum	1	12	Native	No	Yes	Yes	Retain with supervision
159	Acacia implexa	Lightwood	0.19	2.28	Native	No	No	No	Retain
160	Eucalyptus sp.	Gum	0.12	2	Amenity	No	No	No	Retain
161	Eucalyptus sp.	Gum	0.17	2.04	Amenity	No	No	No	Retain
162	Eucalyptus sp.	Gum	0.1	2	Amenity	No	No	No	Retain
163	Acacia retinodes	Wirilda	0.4	4.8	Amenity	No	No	No	Retain
164	Acacia retinodes	Wirilda	0.23	2.76	Amenity	No	No	No	Remove
165	Eucalyptus camaldulensis	River Red Gum	1	12	Native	No	Yes	No	Retain
166	Eucalyptus sp.	Gum	0.53	6.36	Amenity	No	No	No	Retain
167	Eucalyptus sp.	Gum	0.44	5.28	Amenity	No	No	No	Retain
168	Eucalyptus sp.	Gum	0.39	4.68	Amenity	No	No	No	Retain
169	Eucalyptus sp.	Gum	0.33	3.96	Amenity	No	No	No	Retain

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Tree ID	Scientific Name	Common Name	DSH	NRZ	Origin	FFG	Habitat^	Arborist Assessed	Retention Status
170	Eucalyptus sp.	Gum	0.35	4.2	Amenity	No	No	No	Retain
171	Allocasuarina verticillata	Drooping Sheoak	0.2	2.4	Native	No	No	No	Retain
172	Eucalyptus sp.	Gum	0.52	6.24	Amenity	No	No	No	Retain
173	Eucalyptus sp.	Gum	0.46	5.52	Amenity	No	No	No	Retain
174	Acacia implexa	Lightwood	0.31	3.72	Amenity	No	No	No	Retain
175	Cytisus proliferus	Tree Lucerne	0.31	3.72	Amenity	No	No	No	Retain
176	Eucalyptus sideroxylon	Red Ironbark	0.53	6.36	Native	No	No	No	Retain
177	Eucalyptus sideroxylon	Red Ironbark	0.5	6	Native	No	No	No	Retain
178	Eucalyptus sideroxylon	Red Ironbark	0.38	4.56	Native	No	No	No	Retain
179	Eucalyptus sideroxylon	Red Ironbark	0.29	3.48	Native	No	No	No	Retain
180	Eucalyptus sideroxylon	Red Ironbark	0.35	4.2	Native	No	No	No	Retain
181	Eucalyptus sp.	Gum	0.14	2	Amenity	No	No	No	Retain
182	Acacia implexa	Lightwood	0.23	2.76	Amenity	No	No	No	Retain
183	Acacia melanoxylon	Blackwood	0.12	2	Native	No	No	No	Retain
184	Acacia implexa	Lightwood	0.35	4.2	Native	No	No	No	Retain
185	Allocasuarina littoralis	Black Sheoak	0.11	2	Amenity	No	No	Yes	Retain
186	Acacia pycnantha	Golden Wattle	0.15	2	Amenity	No	No	Yes	Retain
187	Acacia implexa	Lightwood	0.19	2.28	Amenity	No	No	Yes	Retain
188	Cupressus macrocarpa	Monterey Cypress	0.15	2	Amenity	No	No	No	Retain
189	Eucalyptus sideroxylon	Red Ironbark	0.32	3.84	Native	No	No	No	Retain
190	Eucalyptus sideroxylon	Red Ironbark	0.35	4.2	Native	No	No	No	Retain
191	Pinus radiata	Radiata Pine	0.5	6	Amenity	No	No	No	Retain
192	Eucalyptus sp.	Gum	0.55	6.6	Amenity	No	No	No	Remove – practical retention possible
193	Eucalyptus camaldulensis	River Red Gum	1.3	15	Native	No	Yes	Yes	Retain
194	Eucalyptus camaldulensis	River Red Gum	0.41	4.92	Amenity	No	No	No	Remove
195	Eucalyptus camaldulensis	River Red Gum	0.8	9.6	Native	No	No	No	Retain
196	Eucalyptus camaldulensis	River Red Gum	0.95	11.4	Native	No	No	No	Retain
197	Eucalyptus camaldulensis	River Red Gum	1.1	13.2	Native	No	No	No	Retain

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Tree ID	Scientific Name	Common Name	DSH	NRZ	Origin	FFG	Habitat^	Arborist Assessed	Retention Status
198	Eucalyptus camaldulensis	River Red Gum	0.9	10.8	Native	No	No	No	Retain
199	Eucalyptus camaldulensis	River Red Gum	0.35	4.2	Native	No	No	No	Retain
200	Prunus sp.	Prunus	0.1	2	Amenity	No	No	No	Retain with supervision
201	Acacia melanoxylon	Blackwood	0.22	2.64	Native	No	No	No	Retain
202	Prunus cerasifera	Cherry Plum	0.2	2.4	Amenity	No	No	Yes	Retain with supervision
203	Prunus cerasifera	Cherry Plum	0.1	2	Amenity	No	No	Yes	Retain with supervision
204	Eucalyptus cladocalyx	Sugar Gum	0.7	8.4	Amenity	No	No	No	Retain
205	Pinus radiata	Radiata Pine	0.68	8.16	Amenity	No	No	No	Retain
206	Pinus radiata	Radiata Pine	0.9	10.8	Amenity	No	No	No	Retain
207	Eucalyptus camaldulensis	River Red Gum	0.4	4.8	Native	No	No	No	Retain
208	Salix sp.	Willow	0.27	3.24	Amenity	No	No	No	Retain
209	Salix sp.	Willow	0.21	2.52	Amenity	No	No	No	Retain
210	Melaleuca armillaris	Giant Honey Myrtle	0.45	5.4	Amenity	No	No	No	Retain
211	Melaleuca armillaris	Giant Honey Myrtle	0.13	2	Amenity	No	No	No	Retain
212	Eucalyptus camaldulensis	River Red Gum	0.33	3.96	Native	No	No	No	Retain
213	Eucalyptus camaldulensis	River Red Gum	0.45	5.4	Native	No	No	No	Retain
214	Eucalyptus globulus	Tasmanian Blue Gum	0.36	4.32	Amenity	No	No	No	Retain
215	Eucalyptus camaldulensis	River Red Gum	0.18	2.16	Native	No	No	No	Retain
216	Cupressus macrocarpa	Monterey Cypress	1	12	Amenity	No	No	No	Retain
217	Eucalyptus globulus	Tasmanian Blue Gum	0.38	4.56	Amenity	No	No	No	Retain
218	Eucalyptus camaldulensis	River Red Gum	0.3	3.6	Native	No	No	No	Retain
219	Eucalyptus sp.	Gum	0.3	3.6	Native	No	No	No	Retain
220	Eucalyptus camaldulensis	River Red Gum	0.28	3.36	Native	No	No	No	Retain
221	Eucalyptus camaldulensis	River Red Gum	0.3	3.6	Native	No	No	No	Retain
222	Eucalyptus sideroxylon	Red Ironbark	0.33	3.96	Native	No	No	No	Retain
223	Eucalyptus sideroxylon	Red Ironbark	0.46	5.52	Native	No	No	No	Retain
224	Eucalyptus sp.	Gum	0.39	4.68	Amenity	No	No	No	Retain
225	Melaleuca armillaris	Giant Honey Myrtle	0.2	2.4	Amenity	No	No	No	Retain
226	Eucalyptus sp.	Gum	0.3	3.6	Amenity	No	No	No	Retain

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227	Eucalyptus globulus	Tasmanian Blue Gum	0.6	7.2	Amenity	No	No	No	Retain
228	Almus sp.	Almus	0.5	6	Amenity	No	No	No	Retain
229	Schinus molle	Peppercorn	0.43	5.16	Amenity	No	No	No	Retain
230	Eucalyptus camaldulensis	River Red Gum	0.81	9.72	Amenity	No	No	No	Retain
231	Eucalyptus sp.	Gum	0.34	4.08	Amenity	No	No	No	Retain
232	Eucalyptus camaldulensis	River Red Gum	0.38	4.56	Native	No	No	No	Retain
233	Pinus radiata	Radiata Pine	0.3	3.6	Amenity	No	No	No	Retain
234	Eucalyptus camaldulensis	River Red Gum	1.5	15	Native	No	No	No	Retain
235	Eucalyptus camaldulensis	River Red Gum	1.35	15	Native	No	No	No	Retain
236	Eucalyptus camaldulensis	River Red Gum	0.9	10.8	Native	No	No	Yes	Retain
237	Eucalyptus camaldulensis	River Red Gum	1.56	15	Native	No	Yes	No	Retain
238	Prunus cerasifera	Cherry Plum	0.17	2.04	Amenity	No	No	Yes	Remove
239	Prunus cerasifera	Cherry Plum	0.28	3.36	Amenity	No	No	Yes	Remove
240	Eucalyptus cladocalyx	Sugar Gum	0.65	7.8	Amenity	No	No	No	Retain
241	Eucalyptus cladocalyx	Sugar Gum	0.7	8.4	Amenity	No	No	No	Retain
242	Eucalyptus cladocalyx	Sugar Gum	0.75	9	Amenity	No	No	No	Retain
243	Acacia sp.	Wattle	0.1	2	Amenity	No	No	No	Retain
244	Acacia sp.	Wattle	0.16	2	Amenity	No	No	No	Retain
245	Prunus sp.	Prunus	0.1	2	Amenity	No	No	No	Retain
246	Eucalyptus camaldulensis	River Red Gum	1.1	13.2	Native	No	Yes	No	Retain
247	Eucalypt stag	Eucalypt stag	0.64	7.68	Native	No	Yes	Yes	Retain
248	Prunus sp.	Prunus	0.1	2	Amenity	No	No	No	Retain
249	Acacia mearnsii	Black Wattle	0.34	4.08	Native	No	No	No	Retain
250	Acacia mearnsii	Black Wattle	0.15	2	Native	No	No	No	Retain
251	Acacia melanoxylon	Blackwood	0.17	2.04	Amenity	No	No	No	Retain
252	Eucalyptus sp.	Gum	0.46	5.52	Amenity	No	No	No	Retain with supervision
253	Eucalyptus sp.	Gum	0.35	4.2	Amenity	No	No	No	Retain with supervision
254	Eucalyptus sp.	Gum	0.3	3.6	Amenity	No	No	No	Retain
255	Eucalyptus sp.	Gum	0.3	3.6	Amenity	No	No	No	Retain

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Tree ID	Scientific Name	Common Name	DSH	NRZ	Origin	FFG	Habitat^	Arborist Assessed	Retention Status
256	Eucalyptus sp.	Gum	0.3	3.6	Amenity	No	No	No	Retain
257	Acacia sp.	Wattle	0.21	2.52	Amenity	No	No	No	Retain
258	Acacia melanoxylon	Blackwood	0.26	3.12	Amenity	No	Yes	No	Retain
259	Fraxinus angustifolia	Desert Ash	0.1	2	Amenity	No	No	Yes	Remove
260	Eucalyptus camaldulensis	River Red Gum	0.25	3	Native	No	No	Yes	Remove
261	Eucalyptus camaldulensis	River Red Gum	0.09	2	Native	No	No	Yes	Retain
262	Eucalyptus camaldulensis	River Red Gum	0.16	2	Native	No	No	Yes	Remove
263	Eucalyptus camaldulensis	River Red Gum	0.2	2.4	Native	No	No	Yes	Remove
264	Eucalyptus camaldulensis	River Red Gum	0.94	11.28	Native	No	No	Yes	Retain
265	Eucalyptus camaldulensis	River Red Gum	0.25	3	Native	No	No	Yes	Remove
266	Eucalyptus camaldulensis	River Red Gum	0.12	2	Native	No	No	Yes	Remove
267	Eucalyptus camaldulensis	River Red Gum	0.98	11.76	Native	No	No	Yes	Retain with supervision
268	Eucalyptus camaldulensis	River Red Gum	0.12	2	Native	No	No	Yes	Remove
269	Eucalyptus camaldulensis	River Red Gum	0.2	2.4	Native	No	No	Yes	Remove
270	Eucalyptus camaldulensis	River Red Gum	0.2	2.4	Native	No	No	Yes	Remove
271	Eucalyptus camaldulensis	River Red Gum	0.05	2	Native	No	No	Yes	Remove
272	Eucalyptus camaldulensis	River Red Gum	0.05	2	Native	No	No	Yes	Remove
273	Eucalyptus camaldulensis	River Red Gum	0.09	2	Native	No	No	Yes	Retain
274	Fraxinus angustifolia	Desert Ash	0.3	3.6	Amenity	No	No	Yes	Retain
275	Fraxinus angustifolia	Desert Ash	0.4	4.8	Amenity	No	No	Yes	Retain
276	Eucalyptus camaldulensis	River Red Gum	0.23	2.76	Native	No	No	Yes	Retain
277	Eucalyptus camaldulensis	River Red Gum	0.18	2.16	Native	No	No	Yes	Remove
278	Eucalyptus camaldulensis	River Red Gum	0.23	2.76	Native	No	No	Yes	Remove
279	Eucalyptus camaldulensis	River Red Gum	0.25	3	Native	No	No	Yes	Retain
280	Eucalyptus camaldulensis	River Red Gum	0.19	2.28	Native	No	No	Yes	Remove
281	Eucalyptus camaldulensis	River Red Gum	0.35	4.2	Native	No	No	Yes	Remove
282	Eucalyptus camaldulensis	River Red Gum	0.27	3.24	Native	No	No	Yes	Retain
283	Eucalyptus camaldulensis	River Red Gum	0.1	2	Native	No	No	Yes	Remove
284	Eucalyptus camaldulensis	River Red Gum	0.12	2	Native	No	No	Yes	Retain

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Tree ID	Scientific Name	Common Name	DSH	NRZ	Origin	FFG	Habitat^	Arborist Assessed	Retention Status
285	Eucalyptus camaldulensis	River Red Gum	0.07	2	Native	No	No	Yes	Remove
286	Eucalyptus camaldulensis	River Red Gum	0.15	2	Native	No	No	Yes	Retain
287	Eucalyptus camaldulensis	River Red Gum	0.09	2	Native	No	No	Yes	Remove
288	Eucalyptus camaldulensis	River Red Gum	0.85	10.2	Native	No	No	Yes	Retain
289	Eucalyptus camaldulensis	River Red Gum	0.3	3.6	Native	No	No	Yes	Remove
290	Eucalyptus camaldulensis	River Red Gum	0.12	2	Native	No	No	Yes	Remove
291	Eucalyptus camaldulensis	River Red Gum	0.28	3.36	Native	No	No	Yes	Remove
292	Eucalyptus camaldulensis	River Red Gum	0.1	2	Native	No	No	Yes	Remove
293	Eucalyptus camaldulensis	River Red Gum	0.1	2	Native	No	No	Yes	Remove
294	Eucalyptus camaldulensis	River Red Gum	0.16	2	Native	No	No	Yes	Retain with supervision
295	Eucalyptus camaldulensis	River Red Gum	0.12	2	Native	No	No	Yes	Remove
296	Eucalyptus camaldulensis	River Red Gum	0.33	3.96	Native	No	No	Yes	Remove
297	Eucalyptus camaldulensis	River Red Gum	0.2	2.4	Native	No	No	Yes	Retain with supervision
298	Eucalyptus camaldulensis	River Red Gum	0.13	2	Native	No	No	Yes	Remove
299	Eucalyptus melliodora	Yellow Box	0.4	4.8	Native	No	No	Yes	Retain
300	Eucalyptus melliodora	Yellow Box	0.4	4.8	Native	No	No	Yes	Retain
301	Eucalyptus melliodora	Yellow Box	0.28	3.36	Native	No	No	Yes	Retain
302	Eucalyptus melliodora	Yellow Box	0.3	3.6	Native	No	No	Yes	Retain
303	Eucalyptus melliodora	Yellow Box	0.1	2	Native	No	No	Yes	Retain
304	Eucalyptus melliodora	Yellow Box	0.55	6.6	Native	No	No	Yes	Retain
305	Eucalyptus melliodora	Yellow Box	0.15	2	Native	No	No	Yes	Retain
306	Eucalyptus melliodora	Yellow Box	0.2	2.4	Native	No	No	Yes	Retain
307	Acacia sp.	Wattle	0.2	2.4	Native	No	No	Yes	Retain
308	Brachychiton populneus	Kurrajong	0.06	2	Amenity	No	No	Yes	Retain
309	Eucalyptus leucoxylon	Yellow Gum	0.15	2	Amenity	No	No	Yes	Retain
310	Eucalyptus leucoxylon	Yellow Gum	0	2	Amenity	No	No	Yes	Remove
311	Ulmus minor	Field Elm	0.5	6	Amenity	No	No	Yes	Retain with supervision
312	Ulmus minor	Field Elm	0.5	6	Amenity	No	No	Yes	Retain with supervision
313	Ulmus minor	Field Elm	0.5	6	Amenity	No	No	Yes	Retain with supervision

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Tree ID	Scientific Name	Common Name	DSH	NRZ	Origin	FFG	Habitat^	Arborist Assessed	Retention Status
314	Ulmus minor	Field Elm	0.5	6	Amenity	No	No	Yes	Retain with supervision
315	Prunus cerasifera	Cherry Plum	0.1	2	Amenity	No	No	Yes	Retain
316	Acacia melanoxylon	Blackwood	0.21	2.52	Native	No	No	Yes	Retain with supervision
317	Prunus cerasifera	Cherry Plum	0.18	2.16	Amenity	No	No	Yes	Retain
318	Acacia melanoxylon	Blackwood	0.14	2	Native	No	No	Yes	Retain with supervision
319	Acacia melanoxylon	Blackwood	0.2	2.4	Amenity	No	No	Yes	Retain
320	Acacia melanoxylon	Blackwood	0.2	2.4	Amenity	No	No	Yes	Retain
321	Acacia melanoxylon	Blackwood	0.22	2.64	Native	No	No	Yes	Retain with supervision
322	Acacia melanoxylon	Blackwood	0.14	2	Amenity	No	No	Yes	Retain
323	Acacia melanoxylon	Blackwood	0.15	2	Native	No	No	Yes	Retain with supervision
324	Acacia melanoxylon	Blackwood	0.19	2.28	Native	No	No	Yes	Retain with supervision
327	Eucalyptus camaldulensis	River Red Gum	0.05	2	Native	No	No	Yes	Remove
328	Eucalyptus camaldulensis	River Red Gum	0.05	2	Native	No	No	Yes	Remove
329	Eucalyptus camaldulensis	River Red Gum	0.05	2	Native	No	No	Yes	Remove
330	Eucalyptus camaldulensis	River Red Gum	0.05	2	Native	No	No	Yes	Remove
331	Eucalyptus camaldulensis	River Red Gum	0.05	2	Native	No	No	Yes	Remove
332	Eucalyptus camaldulensis	River Red Gum	0.2	2.4	Native	No	No	Yes	Remove
332	Eucalyptus camaldulensis	River Red Gum	0.05	2	Native	No	No	Yes	Remove
333	Eucalyptus camaldulensis	River Red Gum	0.2	2.4	Native	No	No	Yes	Remove
334	Eucalyptus camaldulensis	River Red Gum	0.2	2.4	Native	No	No	Yes	Remove
335	Eucalyptus camaldulensis	River Red Gum	0.2	2.4	Native	No	No	Yes	Remove
336	Eucalyptus camaldulensis	River Red Gum	0.2	2.4	Native	No	No	Yes	Remove
337	Eucalyptus camaldulensis	River Red Gum	0.2	2.4	Native	No	No	Yes	Remove
338	Eucalyptus camaldulensis	River Red Gum	0.2	2.4	Native	No	No	Yes	Remove
339	Eucalyptus camaldulensis	River Red Gum	0.2	2.4	Native	No	No	Yes	Remove
340	Eucalyptus sp.	Gum	0.55	6.6	Amenity	No	No	No	Remove – practical retention possible
341	Melaleuca sp.	Paperbark	0.55	6.6	Amenity	No	No	No	Retain

FFG: * - FFG listed, but not locally occurring and as such is planted and does not require a permit for removal

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Habitat: ^ - Fauna habitat noted at the time of assessment only (does not account for newly established habitat since the time of assessment)

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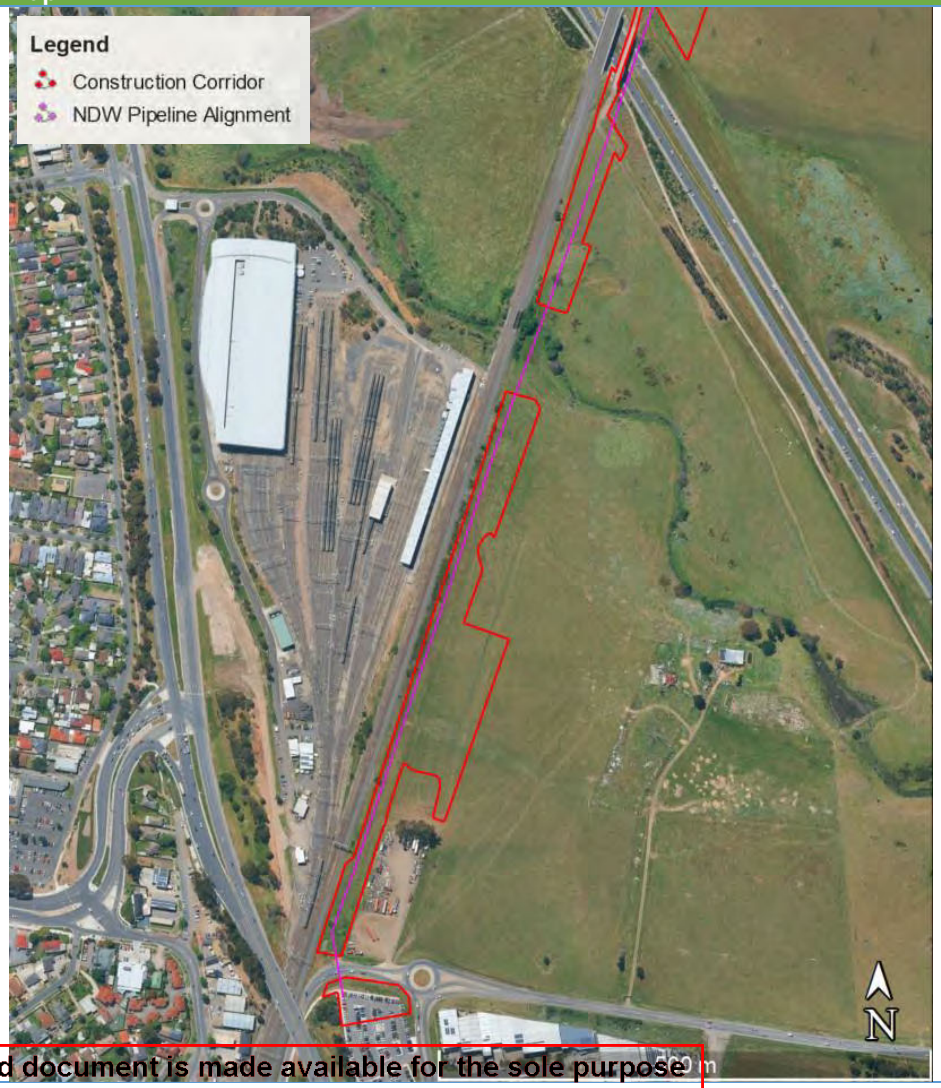
Appendix C: Detailed Observations Across the Alignment

Craigieburn Rd to Hume Freeway	
Overlays present?	
DDO1, PAO4	
Map	**Description and Recommendations**



From Craigieburn Road East the pipeline alignment runs adjacent to the rail corridor along the YVW freehold land. Vegetation within this section is predominately maintained, exotic pasture grass and weed species including Prairie Grass (*Bromus* spp.), Artichoke Thistle (*Cynara cardunculus* - CaLP), Pattersons Curse (*Echium plantagineum* - CaLP), Cats Ear (*Hypochaeris radicata*), Ryegrass (*Lolium* spp.), Chilian Needle Grass (*Nasella neesiana* - CaLP), Ribwort (*Plantago lanceolata*), White Clover (*Trifolium repens*) and Fescue (*Vulpia* spp.) (**Figure 5-1**).

Two patches of low-quality native vegetation are present to the east, adjacent to the construction corridor on the southern side of Malcolm Creek that are consistent with EVC 132 Plains Grassland. The southernmost patch (HZ5 – refer to Environmental Mapping attached in **Appendix A**) consists of Pink Bindweed (*Convolvulus angustissimus*), Rush (*Juncus* spp.), Wallaby Grasses (*Rytidosperma* spp.) and Spear Grass (*Stipa* spp.) (**Figure 5-6**). The patch just north of HZ5 (HZ6– refer to Environmental Mapping attached in **Appendix A**) consists of a similar group of species; however, it has slightly less diversity and has a higher coverage of Rushes (**Figure 5-2**). Neither of these patches are to be impacted by the proposed works.

Elsewhere along the pipeline alignment, scattered native grasses including Wallaby Grass, as well as native Rush species are consistently present throughout; however, density of native species was well under the 25% native perennial understorey to be classified as patch-quality native vegetation.

A large portion of the rail corridor along the fence line has planted Wattles (*Acacia* spp.) and Tree Violet (*Melicytus dentatus*) present.

Soil cracks were observed throughout this section, which could provide habitat for Striped Legless Lizard and other fauna species.

The vegetation at Malcolm Creek includes emergent vegetation such as multiple native Rush species, as well as dense exotic grasses (**Figure 5-7**). The vegetation present is likely to be consistent with Growling Grass Frog habitat. A stand of planted Desert Ash (*Fraxinus angustifolia*) trees on the eastern side of the construction corridor also contains a large, hollowed River Red Gum (*Eucalyptus camaldulensis*) stag which may provide habitat for terrestrial/arboreal fauna (**Figure 5-3**).

Between Malcolm Creek and the Hume Freeway, a rocky escarpment area is present which is densely covered with CaLP weeds including Artichoke Thistle, Pattersons

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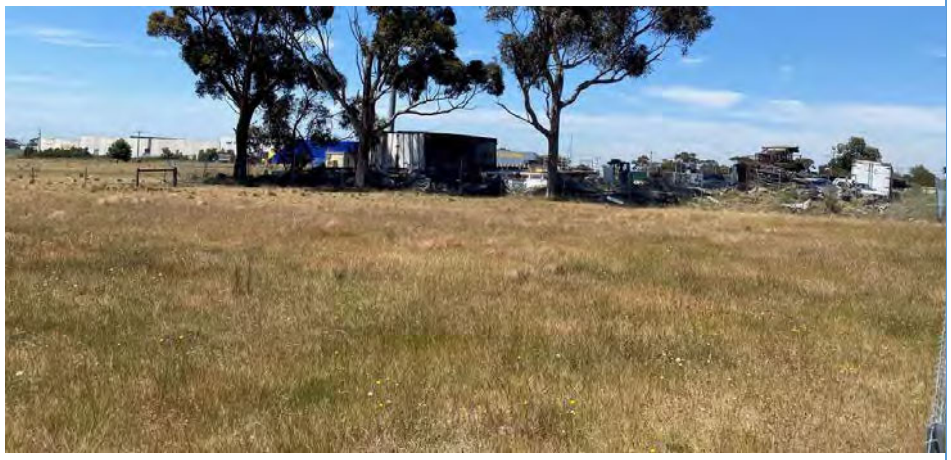
Craigieburn Rd to Hume Freeway	
	Curse, Chilean Needlegrass, Serrated Tussock (*Nassella trichotoma*) and Gorse (*Ulex europaeus*) (**Figure 5-5**, **Figure 5-8**). Just beyond the escarpment, an area of patch-quality native vegetation consistent with EVC 132 Plains Grassland exists on the upper embankment, just prior to the freeway corridor (HZ8 – refer to Environmental Mapping attached in **Appendix A**) (**Figure 5-4**). Vegetation in this section consists of native species such as Sheep's Burr (*Acaena echinata*), Wallaby Grass, Spear Grass and Kangaroo Grass (*Themeda triandra*). Either side of the freeway, there are manicured escarpments consisting of planted native vegetation including Berry Saltbush (*Atriplex semibaccata*) and Hop Goodenia (*Goodenia ovata*) (**Figure 5-9**).
Photos	
 Figure 5-1: YVW freehold land running parallel to the rail corridor between Craigieburn South Rd and Malcolm Creek.	 Figure 5-6: Habitat Zone 5 consistent with EVC 132 Plains Grassland.

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Figure 5-2: Habitat Zone 6 consistent with EVC 132 Plains Grassland.



Figure 5-3: Large, hollowed RRG Stag at the Malcolm Creek crossing.



Figure 5-7: Malcolm Creek vegetation.



Figure 5-8: Rocky escarpment near Malcolm Creek with dense CaLP weeds present.

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Craigieburn Rd to Hume Freeway



Figure 5-4: Habitat Zone 8 consistent with EVC 132 Plains Grassland.



Figure 5-5: Patches of dense Gorse along the alignment.



Figure 5-9: Planted vegetation either side of the Hume Freeway.

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Hume Freeway to Summerhill Rd	
Overlays present?	
BMO, ESO10, DDO1, PAO4.	
Map	**Description and Recommendations**



Just north of the Hume Freeway, a fenced drainage line dominated with native Rush species was noted with frogs heard calling including Common Eastern Froglet (*Crinia signifera*) just to the east of the construction corridor (**Figure 5-10**). Although the drainage line isn't directly impacted by the proposed works, it is recommended that strict sediment and erosion controls are in place along the construction corridor in this section to avoid impacts on the drainage line and any amphibian (or other) fauna species that may occupy it.

From the Hume Freeway, the alignment predominantly follows a gravel access track with exotic grass and weedy flora species dominating either side including Blanket Weed (*Aizoon pubescens*), Wild Oat (*Avena fatua*), Wild Mustard (*Brassica* spp.), Artichoke Thistle, Patterson's Curse, Cats Ear, Ryegrass, Chillian Needle Grass, Ribwort, Mallow (*Malva* spp.), Rat's Tail Grass (*Sporobolus* spp.) and Hares Foot Clover (*Trifolium arvense*) (**Figure 5-11**). Occasional scattered Windmill Grass (*Chloris truncata*), Fragrant Saltbush (*Rhagodia parabolica* - FFG), Brown-back Wallaby-grass (*Rytidosperma duttonianum*), other Wallaby Grasses and Spear Grass were noted; however, these were predominantly present along the far freehold land boundaries. Multiple sections of the rail corridor along the fence line had planted mixed Wattle and Eucalypt (*Eucalyptus* spp.) trees.

Four sections of patch-quality native vegetation also occur along this section of the construction corridor (HZ1, HZ2a, HZ2b and HZ3 – refer to Environmental Mapping attached in **Appendix A**).

Habitat zone 1 is representative of Plains Grassy Woodland EVC (EVC 55_61), with a single large Eucalypt tree (tree 158) over an understorey that is comprised of native species including Blackwood (*Acacia melanoxylon*), Black-anther Flax-lily (*Dianella revoluta* var. *revoluta*) and Fragrant Saltbush, amongst exotic grass and broad leaf weedy species **(Figure 5-15**). African Boxthorn (CaLP) is also present. It is anticipated that Tree 158 can be retained during construction under guidance of a consulting arborist (refer to "Aurora to Bald Hill NDW Main - Stage 1 Detailed Design - Arboricultural Impact Assessment" (Ripple, 2025)). However, a small amount of HZ1 understory vegetation is to be impacted by the proposed works.

Habitat zones 2a (**Figure 5-16**) and 2b are also representative of Plains Grassy Woodland EVC (EVC 55_61). Habitat zone 2a is comprised of remnant Eucalypt trees in the overstorey (which are highly recruiting), with Blue Devil, Rush and Wallaby Grass species amongst exotic grass and broad leaf weedy species in the understorey. A large portion of this habitat zone is to be impacted by the proposed works, including trees 192 and 340. However, it is anticipated that tree 341 can be retained during construction.

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Hume Freeway to Summerhill Rd	
	Habitat zone 2b (**Figure 5-13**) is a continuation of HZ2a (separated by the gravel access track) with a significant, remnant River Red Gum tree in the overstory (Tree 165), as well as additional species including Pink Bindweed, Flax Lily (*Dianella* sp.), Native Geranium (*Geranium* sp.), Pale Mat-rush (*Lomandra nana*), Paperbark (*Melaleuca* sp.) and Brown-back Wallaby-grass (*Rytidosperma duttonianum*). There are no anticipated impacts to this habitat zone as a result of the proposed works. Habitat zone 3 is also representative of Plains Grassy Woodland EVC (EVC 55_61) including significant remnant River Red Gum trees in the overstorey (which are highly recruiting), over an understorey comprised of Pink Bindweed, Sheep's Burr, Blue Devil (*Eryngium ovinum*), Rushes, Moss, Wallaby Grasses, Kangaroo Grass and Spear Grass amongst exotic grass and broad leaf weedy species (**Figure 5-14**, **Figure 5-17**). African Boxthorn (CaLP) is also present. A small portion of HZ3 is to be impacted by the proposed works, predominantly limited to the removal of recruiting River Red Gum saplings along the edge of the existing gravel access track. The significant, remnant River Red Gum trees that form part of HZ3 will not be impacted by the proposed works. The gravel access track also crosses three drainage lines with higher densities of Rush, Sedge and Pink Bindweed species present (not patch-quality vegetation) (**Figure 5-12**).

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Hume Freeway to Summerhill Rd	
Photos	



Figure 5-10: Drainage line beside Hume Freeway where frogs were heard calling.



Figure 5-11: YVW freehold land running parallel to the rail corridor between Hume Freeway and Summerhill Rd.



Figure 5-15: Habitat Zone (HZ1) consistent with EVC 155 Plains Grassy Woodland, between Hume Freeway and Summerhill Rd.

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Hume Freeway to Summerhill Rd



Figure 5-12: One of the drainage lines the access track crosses along the YVW freehold land.



Figure 5-13: Habitat Zone (HZ2b) consistent with EVC 155 Plains Grassy Woodland, between Hume Freeway and Summerhill Rd.

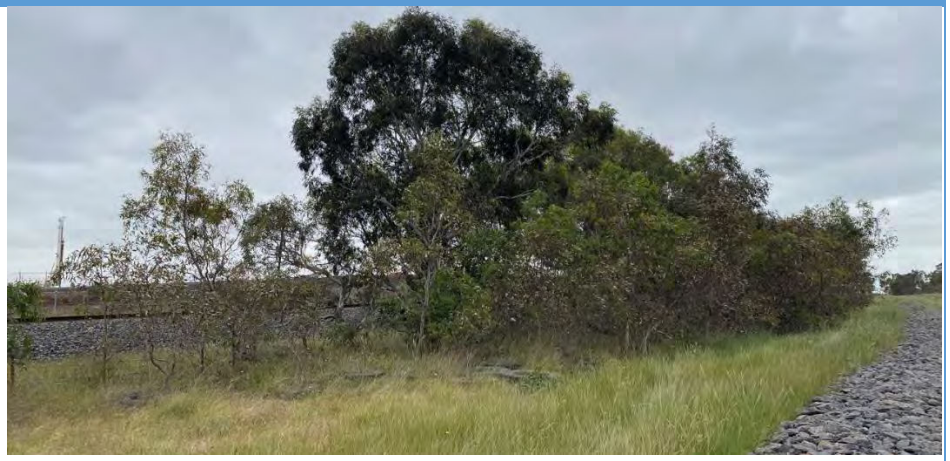

Figure 5-16: Habitat Zone (HZ2a) consistent with EVC 155 Plains Grassy Woodland, between Hume Freeway and Summerhill Rd.



Figure 5-17: Habitat Zone (HZ3 – treeless portion) consistent with EVC 155 Plains Grassy Woodland, between Hume Freeway and Summerhill Rd.

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Hume Freeway to Summerhill Rd	
 Figure 5-14: Habitat Zone (HZ3 – treed portion) consistent with EVC 155 Plains Grassy Woodland, between Hume Freeway and Summerhill Rd.	

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Summerhill Rd to Mt Ridley WTP	
Overlays present?	
ESO2, ESO3, ESO4, ESO10.	
Map	**Description and Recommendations**



From Summerhill Rd the alignment runs west adjacent to the road reserve through a council reserve. This area has a high number of significant, hollow-bearing, remnant River Red Gums present that are likely to provide habitat for terrestrial and arboreal fauna (**Figure 5-18**). Scattered native species including Tree Violet, Wallaby Grass as well as exotic grass and weed species including Scarlet Pimpernel (*Anagallis arvensis*), Prairie Grass, Pattersons Curse, Rye Grass, Mallow, Onion Grass (*Romulea rosea*), Sow Thistle (*Sonchus* sp.), Rat's Tail Grass and Fescue were also present. High-density areas of CaLP listed species including Artichoke Thistle, African Boxthorn and Blackberry (*Rubus fruticosus* spp. agg.) are also scattered throughout. Three small sections of patch-quality native vegetation are present along the southern boundary of the reserve (HZ7) and are to be impacted by the proposed works. These patches are classified as such, due to canopy connectivity of small, recruiting River Red Gum trees only (**Figure 5-25**). The significant, remnant River Red Gum trees within the reserve can be retained during construction under guidance of a consulting arborist (refer to "Aurora to Bald Hill NDW Main - Stage 1 Detailed Design - Arboricultural Impact Assessment" (Ripple, 2025)). A row of large River Red Gum trees also lines the roadside of Summerhill Road (**Figure 5-19**); however, these trees will not be impacted by the proposed works.

Immediately to the east of Amaroo Rd, no vegetation is present as it is an active construction site, except for a row of planted Monterey Cypress (*Cupressus macrocarpa*) trees around the property boundary. Some of these trees may be impacted by the proposed works.

On the western side of Amaroo Rd, the vegetation consists of predominately exotic pasture grasses and weed species seen typically elsewhere along the alignment. The road edge has multiple planted Black Wattles (*Acacia mearnsii* - FFG), Gum and Paperbark trees (none to be impacted by the proposed works) (**Figure 5-26**). A large, planted Olive (*Olea europaea*) grove is also present in this section (**Figure 5-20**). One significant remnant, hollow-bearing Studley Park Gum (FFG) is present just west of Amaroo Rd within private property that is likely to provide habitat to terrestrial/arboreal fauna (**Figure 5-27**). This tree will be directly impacted by the proposed works and will require FFG approval for removal, as well as a pre-clearance fauna survey to ensure no fauna or habitat is present prior to its removal.

Near to the freeway, a farm dam is present where multiple native aquatic bird species were recorded including Australian Wood Duck (*Chenonetta jubata*) and White-faced Heron (*Egretta novaehollandiae*). It is recommended that the farm dam have a suitably qualified fauna specialist present (who holds management authority under the Wildlife Act) during de-watering, in the event fauna is present that needs to be salvaged/translocated.

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Summerhill Rd to Mt Ridley WTP	
	Either side of the Hume Freeway corridor, there are rows of planted native vegetation including Wattles, Gums, Sheoaks and Saltbush (**Figure 5-21**). Planted vegetation on the eastern side of the freeway is to be impacted by the proposed works. On the western side of the freeway, there is a dense section of planted, native vegetation including Drooping Sheoaks (*Allocasuarina verticillata*), Nodding Saltbush (*Einadia nutans* subsp. *nutans*), Sugar Gums (*Eucalyptus cladocalyx*), Red Ironbark's (*Eucalyptus sideroxylon*), Paperbark and Fragrant Saltbush (**Figure 5-22**). However, none of this vegetation is to be impacted by the proposed works. Beyond this, is a paddock dominated by exotic weed and CaLP listed species including Blanketweed, Wild Oat, Wild Mustard, Spear Thistle (*Cirsium vulgare* - CaLP), Artichoke Thistle, Chilean Needlegrass, Phalaris (*Phalaris* sp.), Ribwort, Dock (*Rumex* sp.) Sow Thistle and Vetch (*Vicia sativa*). From here, the alignment follows the southern side of Mt Ridley Road where the vegetation consists predominantly of maintained exotic lawns, with scattered broadleaf weedy species (**Figure 5-23**). There are multiple, planted amenity Eucalyptus and Wattle trees including Blackwood, Spotted Gum (*Corymbia maculata*), Yellow Box (*Eucalyptus melliodora*) and Red Box (*Eucalyptus polyanthemos*) along the nature strip. Some of the plated roadside trees are to be impacted by the proposed works. Along the alignment at the Mt Ridley Conservation Reserve, there are small areas of landscaped/planted native garden beds including species such as Bower Wattle (*Acacia cognata*), Drooping Sheoak, Sweet Bursaria (*Bursaria spinosa*), Prostrate Casuarina (*Casuarina* spp.), Mirror Bush (*Coprosma repens*), *Correa spp*., Iris (*Dietes* spp.), Eucalyptus spp. (likely hybrids), Fig (*Ficus* sp.), Spiny-head Mat-rush (*Lomandra longifolia*), *Lomandra spp*. (cultivar), Callistemon Little John (*Melaleuca viminalis*), *Melaleuca spp*., Tree Violet, Plum (*Prunus* spp.) and *Westringia spp.* (**Figure 5-28**). None of this vegetation is to be impacted by the proposed works. In the more open areas of the reserve, scattered planted Eucalyptus trees are present with a predominantly exotic, maintained grassy understorey. Some of the planted Eucalypts are to be impacted by the proposed works. At Mt Ridley WTP (**Figure 5-29**) the vegetation along the eastern boundary consists of an overstorey of planted mixed Lightwood (*Acacia implexa*), Blackwood, Drooping Sheoak and Eucalypt trees with a planted out and mulched understorey including Spiny-head Mat-rush and Tree Violet (**Figure 5-24**). The northern boundary of the WTP is surrounded by a dense row of Monterey Cypress trees (**Figure 5-30**). On the outside boundary of the WTP is significant amounts of Tree Lucerne (*Cytisus proliferus*). No planted vegetation with the boundary of the WTP is anticipated to be impacted by the proposed works.

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Summerhill Rd to Mt Ridley WTP	
Photos	



Figure 5-18: RRGs along Summerhill Rd and multiple remnant RRGs present within land adjacent to the road reserve.



Figure 5-19: RRGs along the roadside of Summerhill Rd.



Figure 5-25: Habitat Zone (HZ7) consistent with EVC 155 Plains Grassy Woodland, within land along Summerhill Rd.



Figure 5-26: Planted Black Wattles along Summerhill Rd.

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Figure 5-20: Planted Olive Grove within private property along Summerhill Rd.



Figure 5-21: Rows of planted Eucalyptus trees within the Hume Freeway corridor.



Figure 5-27: Remnant Studley Park Gum in private property along Summerhill Rd.

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Figure 5-22: Planted native vegetation on the western side of Hume Freeway.



Figure 5-23: Vegetation along the southern side of Mt Ridley Road.



Figure 5-28: Landscaped native garden bed within the Mt Ridley Conservation Reserve.



Figure 5-29: Mt Ridley WTP.

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Summerhill Rd to Mt Ridley WTP	
 Figure 5-24: Eastern garden beds within the Mt Ridley WTP.	 Figure 5-30: Northern boundary within the Mt Ridley WTP.

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Summerhill Rd to Merri Creek	
Overlays present?	
ESO2, ESO3, ESO4, ESO10.	
Map	**Description and Recommendations**
	From Summerhill Road, the alignment continues adjacent to the rail corridor along the YVW freehold land. The vegetation consists predominately of maintained pasture grass and weed species including Prairie Grass, Drain Flat-sedge (*Cyperus eragrostis*), Paterson's Curse, Cat's Ear, Ryegrass, Chilean Needle-grass and Phalaris; however, scattered native species including Windmill Grass (*Chloris truncata*), Bindweed (*Convolvulus* sp.), Blue Devil (*Eryngium ovinum)*, Rush (*Juncus* sp.), Pale Mat-rush (*Lomandra nana*), Tree Violet (*Melicytus dentatus*), Brown-back Wallaby-grass (*Rytidosperma duttonianum*), Wallaby Grass (*Rytidosperma* sp.) and Kangaroo Grass (*Themeda triandra*) were noted (**Figure 5-31**). The alignment crosses over three drainage lines with scattered Rush species in slightly higher density in the depressional boggy areas; however, these areas do not meet the coverage requirement to be considered patch quality (>25% coverage) (**Figure 5-32**). The rail corridor is dominated by weed and CaLP listed species including Artichoke Thistle and Periwinkle (*Vinca major*). Along the Merri Creek corridor, dense, emergent vegetation (patch-quality native vegetation) including Spiny Rush (*Juncus acutus*) and Giant Rush (*Juncus ingens*) were present, as well as multiple mature River Red Gum trees (**Figure 5-33**). The Merri Creek is known habitat for the Growling Grass Frog and other frogs were also heard calling during the site assessment. However, the proposed works will not impact on any of the native vegetation present within the Merri Creek corridor, as the alignment is to be constructed via boring under the creek. The bore shot begins approx.30m south of the creekline.

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Summerhill Rd to Merri Creek	
Photos	



Figure 5-31: YVW freehold land running parallel to the rail corridor north of Summerhill Road.



Figure 5-32: Drainage line along the YVW freehold land with scattered Rush species present.



Figure 5-33: Vegetation along the Merri Creek corridor.

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Merri Creek to Donnybrook Road	
Overlays present?	
ESO2, ESO3, ESO6, IPO1, IPO2, IPO6.	
Map	**Description and Recommendations**



Immediately north of the Merri Creek is a dense section of CaLP listed Gorse (**Figure 5-34**). However, just adjacent to the area of dense Gorse in the rail corridor, some surface rock with scattered native grasses including Wallaby and Spear Grass was present; however, it did not meet the density requirement to be classified as native patch-quality vegetation.

The bore under Merrik Creek re-surfaces approx.120m north of the creekline within YVW freehold land where the alignment continues adjacent to the rail corridor north. Vegetation present is consistent with the exotic pasture grasses and weed species observed elsewhere along the YVW freehold land with scattered native grasses including Wallaby Grass consistently present (**Figure 5-37**).

Multiple farm dams and drainage lines occur along this section of the alignment (**Figure 5-35, Figure 5-38**). Some with scattered native Rush species present and others devoid of native vegetation altogether. One area of patch-quality native vegetation persists near Donnybrook Road adjacent to the proposed access track (HZ4 – refer to Environmental Mapping attached in **Appendix A**) (**Figure 5-36**). This patch consists of dense Rush species (approx. 60-70% coverage) only. A row of planted Sugar Gums is present to the east of the access track, delineating the property boundary.

Planted Alnus trees were also present near the active construction site along the rail corridor fence line near Donnybrook Road.

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Merri Creek to Donnybrook Road	
Photos	



Figure 5-34: Section of dense Gorse just north of the Merri Creek.



Figure 5-35: Farm dam with minimal emergent vegetation present.



Figure 5-37: YVW freehold land running adjacent to the rail corridor between the connection point to the future Wollert RWTP and Donnybrook Rd.



Figure 5-38: Farm dam with scattered native emergent vegetation present.

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Merri Creek to Donnybrook Road	
 Figure 5-36: HZ4 consisting of dense Rush species only near Donnybrook Rd.	

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Appendix D: Environmental Overlay Figures

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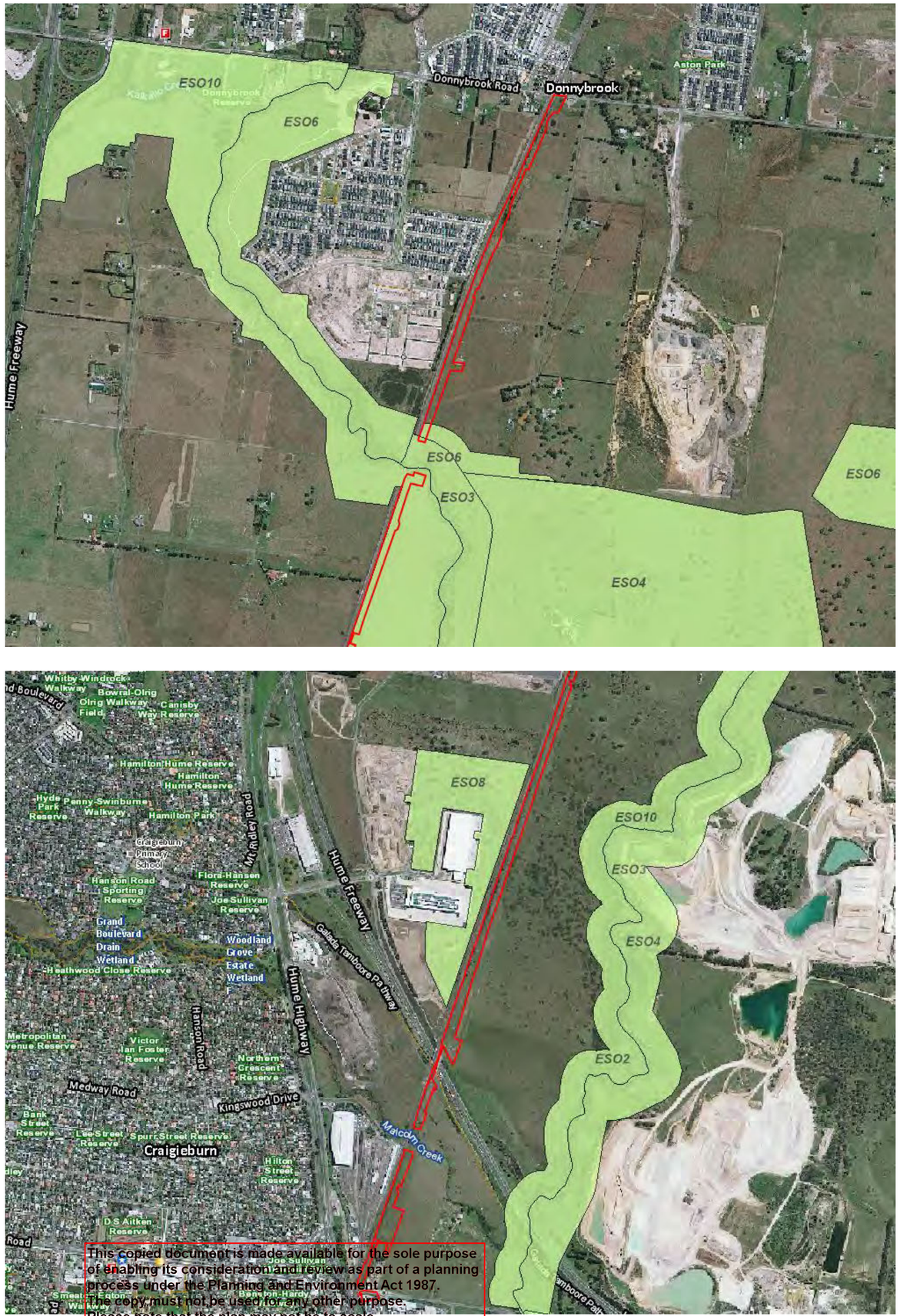
Aurora to Bald Hill (NDW)



Environment and Landscape Overlays

ESO - Environmental Significance Overlay

0.4km

NORTH

Map projection: GDA 1994 VIC GRID 94

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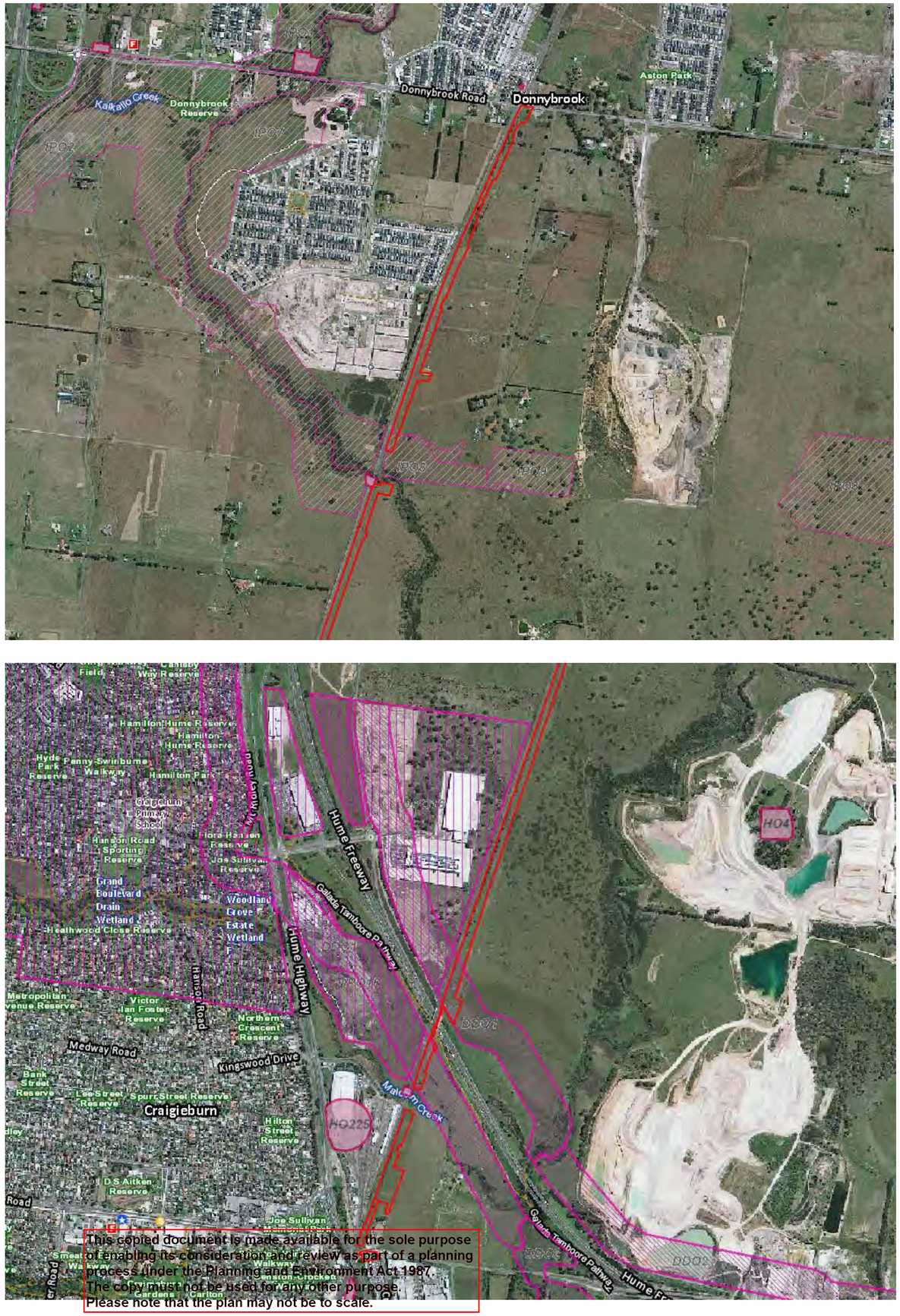
Aurora to Bald Hill (NDW)



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Heritage and Built Form Overlays

- DDO - Design and Development Overlay
- DPO - Development Plan Overlay
- HO - Heritage Overlay
- IPO - Incorporated Plan Overlay

0.4km

NORTH

Map projection: GDA 1994 VIC GRID 94

Aurora to Bald Hill (NDW)



Land Management Overlays

- BMO - Bushfire Management Overlay
- FO - Floodway Overlay
- LSIO - Land Subject to Inundation Overlay

0.4km

NORTH

Map projection: GDA 1994 VIC GRID 94

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Aurora to Bald Hill (NDW)



Other Overlays

- DCPO - Development Contributions Plan Overlay
- EAO - Environmental Audit Overlay
- PAO - Public Acquisition Overlay
- SCO - Specific Controls Overlay

0.4km

NORTH

Map projection: GDA 1994 VIC GRID 94

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Appendix E: Threatened Species Records

E.1 Threatened Fauna



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E.2 Threatened Flora



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Appendix F: Protected Matters Search Report

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Australian Government

Department of Climate Change, Energy, the Environment and Water

EPBC Act Protected Matters Report

This report provides general guidance on matters of national environmental significance and other matters protected by the EPBC Act in the area you have selected. Please see the caveat for interpretation of information provided here.

Report created: 31-Oct-2025

Summary

Details

- Matters of NES
- Other Matters Protected by the EPBC Act
- Extra Information

Caveat

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Summary

Matters of National Environment Significance

This part of the report summarises the matters of national environmental significance that may occur in, or may relate to, the area you nominated. Further information is available in the detail part of the report, which can be accessed by scrolling or following the links below. If you are proposing to undertake an activity that may have a significant impact on one or more matters of national environmental significance then you should consider the Administrative Guidelines on Significance.

World Heritage Properties:	None
National Heritage Places:	None
Wetlands of International Importance (Ramsar	None
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	None
Listed Threatened Ecological Communities:	5
Listed Threatened Species:	51
Listed Migratory Species:	11

Other Matters Protected by the EPBC Act

This part of the report summarises other matters protected under the Act that may relate to the area you nominated. Approval may be required for a proposed activity that significantly affects the environment on Commonwealth land, when the action is outside the Commonwealth land, or the environment anywhere when the action is taken on Commonwealth land. Approval may also be required for the Commonwealth or Commonwealth agencies proposing to take an action that is likely to have a significant impact on the environment anywhere.

The EPBC Act protects the environment on Commonwealth land, the environment from the actions taken on Commonwealth land, and the environment from actions taken by Commonwealth agencies. As heritage values of a place are part of the 'environment', these aspects of the EPBC Act protect the Commonwealth Heritage values of a Commonwealth Heritage place. Information on the new heritage laws can be found at https://www.dcceew.gov.au/parks-heritage/heritage

A permit may be required for activities in or on a Commonwealth area that may affect a member of a listed threatened species or ecological community, a member of a listed migratory species, whales and other cetaceans, or a member of a listed marine species.

Commonwealth Lands:	2
Commonwealth Heritage Places:	None
Listed Marine Species:	22
Whales and Other Cetaceans:	None
Critical Habitats:	None
Commonwealth Reserves Terrestrial:	None
Australian Marine Parks:	None
Habitat Critical to the Survival of Marine Turtles:	None

Extra Information

This part of the report provides information that may also be relevant to the area you have

State and Territory Reserves:	4
Regional Forest Agreements:	2
Nationally Important Wetlands:	None
EPBC Act Referrals:	59
Key Ecological Features (Marine):	None
Biologically Important Areas:	None
Bioregional Assessments:	None
Geological and Bioregional Assessments:	None

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Details

Matters of National Environmental Significance

Listed Threatened Ecological Communities [Resource Information]

For threatened ecological communities where the distribution is well known, maps are derived from recovery plans, State vegetation maps, remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.
Status of Vulnerable, Disallowed and Ineligible are not MNES under the EPBC Act.

Community Name	Threatened Category	Presence Text	Buffer Status
Grassy Eucalypt Woodland of the Victorian Volcanic Plain	Critically Endangered	Community known to occur within area	In feature area
Grey Box (Eucalyptus microcarpa) Grassy Woodlands and Derived Native Grasslands of South-eastern Australia	Endangered	Community may occur within area	In feature area
Natural Temperate Grassland of the Victorian Volcanic Plain	Critically Endangered	Community likely to occur within area	In feature area
Seasonal Herbaceous Wetlands (Freshwater) of the Temperate Lowland Plains	Critically Endangered	Community likely to occur within area	In buffer area only
White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland	Critically Endangered	Community likely to occur within area	In feature area

Listed Threatened Species [Resource Information]

Status of Conservation Dependent and Extinct are not MNES under the EPBC Act.
Number is the current name ID.

Scientific Name	Threatened Category	Presence Text	Buffer Status
BIRD			
Anthochaera phrygia			
Regent Honeyeater [82338]	Critically Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Aphelocephala leucopsis			
Southern Whiteface [529]	Vulnerable	Species or species habitat known to occur within area	In feature area

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Scientific Name	Threatened Category	Presence Text	Buffer Status
Botaurus poiciloptilus Australasian Bittern [1001]	Endangered	Species or species habitat likely to occur within area	In feature area
Calidris acuminata Sharp-tailed Sandpiper [874]	Vulnerable	Species or species habitat may occur within area	In feature area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area	In feature area
Callocephalon fimbriatum Gang-gang Cockatoo [768]	Endangered	Species or species habitat likely to occur within area	In feature area
Climacteris picumnus victoriae Brown Treecreeper (south-eastern) [67062]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Falco hypoleucos Grey Falcon [929]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Gallinago hardwickii Latham's Snipe, Japanese Snipe [863]	Vulnerable	Species or species habitat known to occur within area	In feature area
Grantiella picta Painted Honeyeater [470]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area	In feature area
Lathamus discolor Swift Parrot [744]	Critically Endangered	Species or species habitat known to occur within area	In feature area
Melanodryas cucullata cucullata South-eastern Hooded Robin, Hooded Robin (south-eastern) [67093]	Endangered	Species or species habitat likely to occur within area	In feature area

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Scientific Name	Threatened Category	Presence Text	Buffer Status
[Neophema chrysostoma](#) Blue-winged Parrot [726]	Vulnerable	Species or species habitat known to occur within area	In feature area
[Numenius madagascariensis](#) Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area	In buffer area only
[Pedionomus torquatus](#) Plains-wanderer [906]	Critically Endangered	Species or species habitat may occur within area	In feature area
[Rostratula australis](#) Australian Painted Snipe [77037]	Endangered	Species or species habitat known to occur within area	In feature area
[Stagonopleura guttata](#) Diamond Firetail [59398]	Vulnerable	Species or species habitat likely to occur within area	In feature area
[Tringa nebularia](#) Common Greenshank, Greenshank [832]	Endangered	Species or species habitat likely to occur within area	In feature area
FISH			
[Maccullochella peelii](#) Murray Cod [66633]	Vulnerable	Species or species habitat likely to occur within area	In buffer area only
[Nannoperca obscura](#) Yarra Pygmy Perch [26177]	Endangered	Species or species habitat may occur within area	In feature area
[Prototroctes maraena](#) Australian Grayling [26179]	Vulnerable	Species or species habitat likely to occur within area	In feature area
FROG			
[Litoria raniformis](#) Southern Bell Frog, Growling Grass Frog, Green and Golden Frog, Warty Swamp Frog, Golden Bell Frog [1828]	Vulnerable	Species or species habitat known to occur within area	In feature area
INSECT			
[Synemon plana](#) Golden Sun Moth [25234]	Vulnerable	Species or species habitat known to occur within area	In feature area

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Scientific Name	Threatened Category	Presence Text	Buffer Status
MAMMAL			
Dasyurus maculatus maculatus (SE mainland population)			
Spot-tailed Quoll, Spotted-tail Quoll, Tiger Quoll (southeastern mainland population) [75184]	Endangered	Species or species habitat may occur within area	In feature area
Petaurus australis australis			
Yellow-bellied Glider (south-eastern) [87600]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Pseudomys novaehollandiae			
New Holland Mouse, Pookila [96]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Pteropus poliocephalus			
Grey-headed Flying-fox [186]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In feature area
PLANT			
Amphibromus fluitans			
River Swamp Wallaby-grass, Floating Swamp Wallaby-grass [19215]	Vulnerable	Species or species habitat known to occur within area	In feature area
Dianella amoena			
Matted Flax-lily [64886]	Endangered	Species or species habitat known to occur within area	In feature area
Diuris fragrantissima			
Sunshine Diuris, Fragrant Doubletail, White Diuris [21243]	Endangered	Species or species habitat may occur within area	In feature area
Dodonaea procumbens			
Trailing Hop-bush [12149]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Glycine latrobeana			
Clover Glycine, Purple Clover [13910]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Lachnagrostis adamsonii			
Adamson's Blown-grass, Adamson's Blowngrass [76211]	Endangered	Species or species habitat known to occur within area	In feature area
Lepidium aschersonii			
Spiny Peppercress [10976]	Vulnerable	Species or species habitat may occur within area	In feature area

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Scientific Name	Threatened Category	Presence Text	Buffer Status
Lepidium hyssopifolium Basalt Pepper-cress, Peppercress, Rubble Pepper-cress, Pepperweed [16542]	Endangered	Species or species habitat known to occur within area	In feature area
Leucochrysum albicans subsp. tricolor Hoary Sunray, Grassland Paper-daisy [89104]	Endangered	Species or species habitat likely to occur within area	In feature area
Pimelea spinescens subsp. spinescens Plains Rice-flower, Spiny Rice-flower, Prickly Pimelea [21980]	Critically Endangered	Species or species habitat likely to occur within area	In feature area
Pomaderris vacciniifolia Round-leaf Pomaderris [4256]	Critically Endangered	Species or species habitat likely to occur within area	In buffer area only
Prasophyllum suaveolens Fragrant Leek-orchid [64956]	Endangered	Species or species habitat may occur within area	In feature area
Pterostylis chlorogramma Green-striped Greenhood [56510]	Vulnerable	Species or species habitat may occur within area	In feature area
Pterostylis cucullata Leafy Greenhood [15459]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Rutidosis leptorhynchoides Button Wrinklewort [67251]	Endangered	Species or species habitat likely to occur within area	In feature area
Senecio macrocarpus Large-fruit Fireweed, Large-fruit Groundsel [16333]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Senecio psilocarpus Swamp Fireweed, Smooth-fruited Groundsel [64976]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Thelymitra orientalis Hoary Sun-orchid [88011]	Critically Endangered	Species or species habitat may occur within area	In feature area

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Scientific Name	Threatened Category	Presence Text	Buffer Status
[Xerochrysum palustre](#) Swamp Everlasting, Swamp Paper Daisy [76215]	Vulnerable	Species or species habitat known to occur within area	In feature area
REPTILE			
[Aprasia parapulchella](#) Pink-tailed Worm-lizard, Pink-tailed Legless Lizard [1665]	Vulnerable	Species or species habitat likely to occur within area	In feature area
[Delma impar](#) Striped Legless Lizard, Striped Snake-lizard [1649]	Vulnerable	Species or species habitat known to occur within area	In feature area
[Lissolepis coventryi](#) Swamp Skink, Eastern Mourning Skink [84053]	Endangered	Species or species habitat may occur within area	In feature area
[Tympanocryptis pinguicolla](#) Victorian Grassland Earless Dragon [66727]	Critically Endangered	Species or species habitat likely to occur within area	In feature area

Listed Migratory Species [Resource Information]

Scientific Name	Threatened Category	Presence Text	Buffer Status
Migratory Marine Birds			
[Apus pacificus](#) Fork-tailed Swift [678]		Species or species habitat likely to occur within area	In feature area
Migratory Terrestrial Species			
[Hirundapus caudacutus](#) White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area	In feature area
[Motacilla flava](#) Yellow Wagtail [644]		Species or species habitat may occur within area	In feature area
Migratory Wetlands Species			
[Actitis hypoleucos](#) Common Sandpiper [59309]		Species or species habitat may occur within area	In feature area
[Calidris acuminata](#) Sharp-tailed Sandpiper [874]	Vulnerable	Species or species habitat may occur within area	In feature area

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Scientific Name	Threatened Category	Presence Text	Buffer Status
[Calidris ferruginea](#)			
Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area	In feature area
[Calidris melanotos](#)			
Pectoral Sandpiper [858]		Species or species habitat may occur within area	In feature area
[Gallinago hardwickii](#)			
Latham's Snipe, Japanese Snipe [863]	Vulnerable	Species or species habitat known to occur within area	In feature area
[Numenius madagascariensis](#)			
Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area	In buffer area only
[Pandion haliaetus](#)			
Osprey [952]		Species or species habitat likely to occur within area	In feature area
[Tringa nebularia](#)			
Common Greenshank, Greenshank [832]	Endangered	Species or species habitat likely to occur within area	In feature area

Other Matters Protected by the EPBC Act

Commonwealth Lands [Resource Information]

The Commonwealth area listed below may indicate the presence of Commonwealth land in this vicinity. Due to the unreliability of the data source, all proposals should be checked as to whether it impacts on a Commonwealth area, before making a definitive decision. Contact the State or Territory government land department for further information.

Commonwealth Land Name	State	Buffer Status
Defence		
Defence - RANAD SOMERTON [20079]	VIC	In buffer area only
Defence - RANAD SOMERTON [20078]	VIC	In buffer area only

Listed Marine Species [Resource Information]

Scientific Name	Threatened Category	Presence Text	Buffer Status
Bird			
[Actitis hypoleucos](#)			
Common Sandpiper [59309]		Species or species habitat may occur within area	In feature area

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Scientific Name	Threatened Category	Presence Text	Buffer Status
Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur within area overfly marine area	In feature area
Bubulcus ibis as Ardea ibis Cattle Egret [66521]		Species or species habitat may occur within area overfly marine area	In feature area
Calidris acuminata Sharp-tailed Sandpiper [874]	Vulnerable	Species or species habitat may occur within area	In feature area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area overfly marine area	In feature area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat may occur within area overfly marine area	In feature area
Chalcites osculans as Chrysococcyx osculans Black-eared Cuckoo [83425]		Species or species habitat known to occur within area overfly marine area	In feature area
Gallinago hardwickii Latham's Snipe, Japanese Snipe [863]	Vulnerable	Species or species habitat known to occur within area overfly marine area	In feature area
Haliaeetus leucogaster White-bellied Sea-Eagle [943]		Species or species habitat likely to occur within area	In feature area
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area overfly marine area	In feature area
Lathamus discolor Swift Parrot [744]	Critically Endangered	Species or species habitat known to occur within area overfly marine area	In feature area

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Scientific Name	Threatened Category	Presence Text	Buffer Status
Merops ornatus Rainbow Bee-eater [670]		Species or species habitat may occur within area overfly marine area	In feature area
Monarcha melanopsis Black-faced Monarch [609]		Species or species habitat may occur within area overfly marine area	In feature area
Motacilla flava Yellow Wagtail [644]		Species or species habitat may occur within area overfly marine area	In feature area
Myiagra cyanoleuca Satin Flycatcher [612]		Species or species habitat known to occur within area overfly marine area	In feature area
Neophema chrysostoma Blue-winged Parrot [726]	Vulnerable	Species or species habitat known to occur within area overfly marine area	In feature area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area	In buffer area only
Pandion haliaetus Osprey [952]		Species or species habitat likely to occur within area	In feature area
Rhipidura rufifrons Rufous Fantail [592]		Species or species habitat known to occur within area overfly marine area	In feature area
Rostratula australis as Rostratula benghalensis (sensu lato) Australian Painted Snipe [77037]	Endangered	Species or species habitat known to occur within area overfly marine area	In feature area
Sterna striata White-fronted Tern [799]		Migration route may occur within area	In buffer area only

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Scientific Name	Threatened Category	Presence Text	Buffer Status
Tringa nebularia			
Common Greenshank, Greenshank [832]	Endangered	Species or species habitat likely to occur within area overfly marine area	In feature area

Extra Information

State and Territory Reserves [Resource Information]

Protected Area Name	Reserve Type	State	Buffer Status
Cooper St Grassland N.C.R.	Natural Features Reserve	VIC	In buffer area only
Craigieburn Grassland N.C.R.	Natural Features Reserve	VIC	In feature area
Melbourne Strategic Assessment Reserve	Nature Conservation Reserve	VIC	In buffer area only
Mount Ridley N.C.R.	Natural Features Reserve	VIC	In buffer area only

Regional Forest Agreements [Resource Information]

Note that all areas with completed RFAs have been included. Please see the associated resource information for specific caveats and use limitations associated with RFA boundary information.

RFA Name	State	Buffer Status
Central Highlands RFA	Victoria	In feature area
West Victoria RFA	Victoria	In feature area

EPBC Act Referrals [Resource Information]

Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Aitken Boulevard road construction	2022/9150		Post-Approval	In buffer area only
Craigieburn Industrial Development	2021/9093		Assessment	In feature area
Fusion Business Park	2023/09568		Assessment	In buffer area only
Passing Lane 2 between Donnybrook Road and Beveridge Road level crossings	2007/3795		Completed	In feature area

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Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Somerton Intermodal Terminal - Stage 1	2023/09728		Assessment	In feature area
Controlled action				
305-315 Craigieburn Road East, Vic	2012/6486	Controlled Action	Post-Approval	In buffer area only
Aitken Blvd North Drinking Water and Non-Drinking Water Mains, Vic	2016/7818	Controlled Action	Post-Approval	In buffer area only
Aurora, Residential Subdivision, Epping North	2007/3524	Controlled Action	Post-Approval	In buffer area only
Cessation or Reduction of Flows from Sewage Treatment Plant	2004/1505	Controlled Action	Completed	In feature area
Commercial & residential development, 225 & 285 Donnybrook Rd, Mickleham, Vic	2013/6913	Controlled Action	Post-Approval	In buffer area only
Commercial development, 410 Cooper Street and 315 O'Herns Road, Epping, VIC	2018/8167	Controlled Action	Post-Approval	In buffer area only
Craigieburn Sewage Treatment Plant Decommission	2002/601	Controlled Action	Completed	In feature area
Donnybrook Road Subdivision and Redevelopment	2011/5945	Controlled Action	Further Information Request	In buffer area only
Industrial Estate Cooper Road	2005/2178	Controlled Action	Post-Approval	In feature area
Industrial Facility - 276 Rex Road, Campbellfield, VIC	2021/8934	Controlled Action	Further Information Request	In buffer area only
Installation of the Mt Ridley Road West Water Mains (M703 & R004) and associated infrastructure	2013/6823	Controlled Action	Post-Approval	In buffer area only
Lindum Vale residential development, Mickleham, Vic	2015/7516	Controlled Action	Post-Approval	In buffer area only
Lot 2, Pascoe Vale Road, Coolaroo	2010/5473	Controlled Action	Post-Approval	In buffer area only
Nava-1 Cable System	2001/510	Controlled Action	Completed	In feature area
O'Herns Road and Hume Freeway Interchange Project, Vic	2017/8008	Controlled Action	Post-Approval	In buffer area only
Residential Development at Craigieburn R2	2010/5298	Controlled Action	Completed	In buffer area only

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Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Controlled action				
Residential Development Craigieburn	2008/4161	Controlled Action	Post-Approval	In feature area
Sale of 7.576ha of land for potential conversion to industrial estate	2010/5671	Controlled Action	Post-Approval	In buffer area only
Urban Development	2010/5436	Controlled Action	Completed	In buffer area only
Western Outer Ring Main (WORM) ??? High pressure gas transmission pipeline	2019/8569	Controlled Action	Proposed Decision	In buffer area only
Not controlled action				
Car Park development for the Northern Hospital	2005/2373	Not Controlled Action	Completed	In buffer area only
Construction of sewerage pipeline from Craigieburn Sewage Treatment Plant to Mel	2004/1503	Not Controlled Action	Completed	In feature area
Craigieburn Employment Precinct development, Craigieburn, Vic	2015/7447	Not Controlled Action	Completed	In buffer area only
Craigieburn Rail Project	2004/1508	Not Controlled Action	Completed	In feature area
Establishment of Reserve Bank of Aust currency storage & processing facility, Craigieburn, Vic	2014/7121	Not Controlled Action	Completed	In feature area
Ford Motor Company Subdivision	2001/169	Not Controlled Action	Completed	In buffer area only
Improving rabbit biocontrol: releasing another strain of RHDV, sthrn two thirds of Australia	2015/7522	Not Controlled Action	Completed	In feature area
INDIGO Central Submarine Telecommunications Cable	2017/8127	Not Controlled Action	Completed	In feature area
Malcolm Creek Bridge and Highlands Residential Development (Areas 5a and C)	2008/4125	Not Controlled Action	Completed	In buffer area only
Mernda North Sewerage Strategy, Mernda-Doreen	2004/1350	Not Controlled Action	Completed	In buffer area only
Merrifield Central Industrial and Commerical Subdivision	2009/4721	Not Controlled Action	Completed	In buffer area only
Merrifield Pipeline Pumping Station and Associated Infrastructure, Donnybrook Rd	2009/4914	Not Controlled Action	Completed	In buffer area only

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Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Not controlled action				
Mickleham and Craigieburn Water Mains Project, Vic	2018/8312	Not Controlled Action	Completed	In buffer area only
Mickleham Road and Craigieburn Road West Upgrade, Vic	2019/8476	Not Controlled Action	Completed	In buffer area only
Parkview Village 156 Lot Residential Developmment & Translocation of Dianella am	2005/2157	Not Controlled Action	Completed	In feature area
Stage 15B Barry Road industrial subdivision	2005/2482	Not Controlled Action	Completed	In buffer area only
Water Supply Mains	2008/4042	Not Controlled Action	Completed	In buffer area only
Not controlled action (particular manner)				
construction of a sewage pumping station and installation of a sewer rising main	2005/1974	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
Fairways North residential development	2006/3057	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
Greenvale Gravity Booster Pumping Station VIC	2011/6088	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
INDIGO Marine Cable Route Survey (INDIGO)	2017/7996	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Kalkallo Class A Recycled Water Distribution Mains	2011/6190	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Materials Recycling Facility & Business Estate	2010/5348	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
Melbourne to Sydney Rail Upgrade Project - Passing Lane 2	2009/4783	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Pipeline to link Craigieburn Sewerage Treatment Plant to new Aurora recycled sew	2008/4608	Not Controlled Action (Particular Manner)	Post-Approval	In feature area

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Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Not controlled action (particular manner)				
Post-Entry Quarantine Facilities Project	2012/6586	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
Proposed Amaroo Business Park, Industrial & Commercial Development	2008/4150	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Somerton Natural Gas Pipeline	2001/275	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Upgrade of Cooper Street, Epping	2001/292	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Upgrade to existing gas compressor facilities	2009/5092	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
Referral decision				
All actions taken in response to the current severe bushfires in Victoria.	2009/4787	Referral Decision	Completed	In feature area
Amaroo Main Sewer Project,Vic	2014/7370	Referral Decision	Completed	In feature area
Extension of the Aitken Hill Conference and Events Venue, Yuroke	2008/4651	Referral Decision	Completed	In buffer area only
Residential Developments at Greenvale R1 and Craigieburn R2	2009/5135	Referral Decision	Completed	In buffer area only

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Caveat

1 PURPOSE

This report is designed to assist in identifying the location of matters of national environmental significance (MNES) and other matters protected by the Environment Protection and Biodiversity Conservation Act 1999 (Cth) (EPBC Act) which may be relevant in determining obligations and requirements under the EPBC Act.

The report contains the mapped locations of:

- World and National Heritage properties;
- Wetlands of International and National Importance;
- Commonwealth and State/Territory reserves;
- distribution of listed threatened, migratory and marine species;
- listed threatened ecological communities; and
- other information that may be useful as an indicator of potential habitat value.

2 DISCLAIMER

This report is not intended to be exhaustive and should only be relied upon as a general guide as mapped data is not available for all species or ecological communities listed under the EPBC Act (see below). Persons seeking to use the information contained in this report to inform the referral of a proposed action under the EPBC Act should consider the limitations noted below and whether additional information is required to determine the existence and location of MNES and other protected matters.

Where data is available to inform the mapping of protected species, the presence type (e.g. known, likely or may occur) that can be determined from the data is indicated in general terms. It is the responsibility of any person using or relying on the information in this report to ensure that it is suitable for the circumstances of any proposed use. The Commonwealth cannot accept responsibility for the consequences of any use of the report or any part thereof. To the maximum extent allowed under governing law, the Commonwealth will not be liable for any loss or damage that may be occasioned directly or indirectly through the use of, or reliance on the contents of this report.

3 DATA SOURCES

Threatened ecological communities

For threatened ecological communities where the distribution is well known, maps are generated based on information contained in recovery plans, State vegetation maps and remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.

Threatened, migratory and marine species

Threatened, migratory and marine species distributions have been discerned through a variety of methods. Where distributions are well known and if time permits, distributions are inferred from either thematic spatial data (i.e. vegetation, soils, geology, elevation, aspect, terrain, etc.) together with point locations and described habitat; or modelled (MAXENT or BIOCLIM habitat modelling) using point locations and environmental data layers.

Where little information is available for a species or large number of maps are required in a short time-frame, maps are derived either from 0.04 or 0.02 decimal degree cells; by an automated process using polygon capture techniques (static two kilometre grid cells, alpha-hull and convex hull); or captured manually or by using topographic features (national park boundaries, islands, etc.).

In the early stages of the distribution mapping process (1999-early 2000s) distributions were defined by degree blocks, 100K or 250K map sheets to rapidly create distribution maps. More detailed distribution mapping methods are used to update these distributions when time permits.

4 LIMITATIONS

The following species and ecological communities have not been mapped and do not appear in this report:

- threatened species listed as extinct or considered vagrants;
- some recently listed species and ecological communities;
- some listed migratory and listed marine species, which are not listed as threatened species; and
- migratory species that are very widespread, vagrant, or only occur in Australia in small numbers.

The following groups have been mapped, but may not cover the complete distribution of the species:

- listed migratory and/or listed marine seabirds, which are not listed as threatened, have only been mapped for recorded breeding sites; and
- seals which have only been mapped for breeding sites near the Australian continent

The breeding sites may be important for the protection of the Commonwealth Marine environment.

Refer to the metadata for the feature group (using the Resource Information link) for the currency of the information.

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Acknowledgements

This database has been compiled from a range of data sources. The department acknowledges the following custodians who have contributed valuable data and advice:

-Office of Environment and Heritage, New South Wales
-Department of Environment and Primary Industries, Victoria
-Department of Primary Industries, Parks, Water and Environment, Tasmania
-Department of Environment, Water and Natural Resources, South Australia
-Department of Land and Resource Management, Northern Territory
-Department of Environmental and Heritage Protection, Queensland
-Department of Parks and Wildlife, Western Australia
-Environment and Planning Directorate, ACT
-Birdlife Australia
-Australian Bird and Bat Banding Scheme
-Australian National Wildlife Collection
-Natural history museums of Australia
-Museum Victoria
-Australian Museum
-South Australian Museum
-Queensland Museum
-Online Zoological Collections of Australian Museums
-Queensland Herbarium
-National Herbarium of NSW
-Royal Botanic Gardens and National Herbarium of Victoria
-Tasmanian Herbarium
-State Herbarium of South Australia
-Northern Territory Herbarium
-Western Australian Herbarium
-Australian National Herbarium, Canberra
-University of New England
-Ocean Biogeographic Information System
-Australian Government, Department of Defence
Forestry Corporation, NSW
-Geoscience Australia
-CSIRO
-Australian Tropical Herbarium, Cairns
-eBird Australia
-Australian Government – Australian Antarctic Data Centre
-Museum and Art Gallery of the Northern Territory
-Australian Government National Environmental Science Program
-Australian Institute of Marine Science
-Reef Life Survey Australia
-American Museum of Natural History
-Queen Victoria Museum and Art Gallery, Inveresk, Tasmania
-Tasmanian Museum and Art Gallery, Hobart, Tasmania
-Other groups and individuals

The Department is extremely grateful to the many organisations and individuals who provided expert advice and information on numerous draft distributions.

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Please feel free to provide feedback via the Contact us page.

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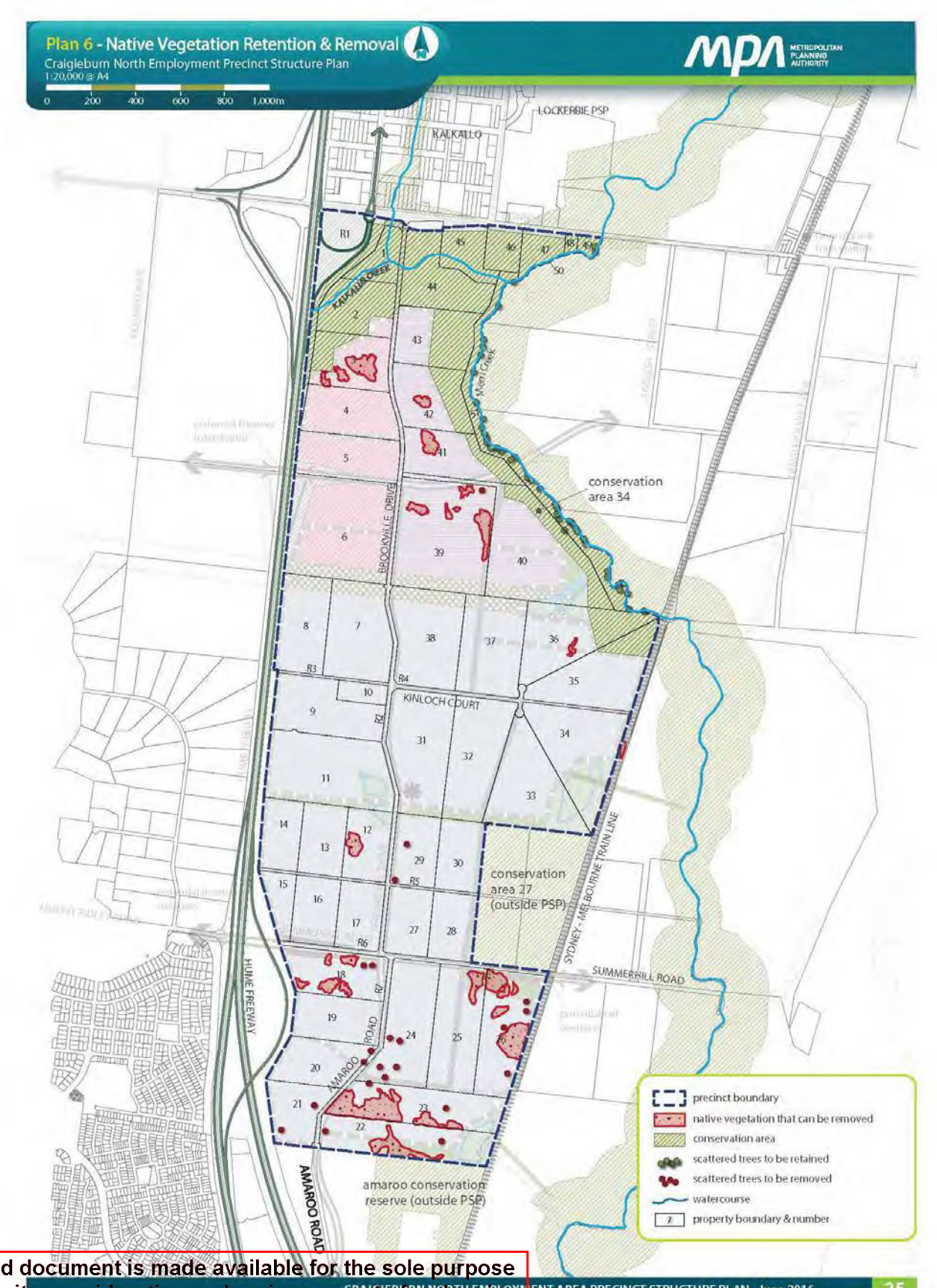
Appendix G: PSP Native Vegetation Removal Plans

G.1 Craigieburn North Employment Area PSP



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3.4 Biodiversity and Threatened Species

3.4.1 Biodiversity & Threatened Species

	REQUIREMENTS
R22	Development abutting any conservation area must be in accordance with the Growling Grass Frog Conservation Area - Concept Plan (Figure 4) and the Conservation Interface (Figure 2) to the satisfaction of the Secretary to the Department of Environment, Land, Water & Planning and the responsible authority.
R23	Any public paths or infrastructure located within a conservation area must be designed to avoid/ minimise disturbance to vegetation or Growling Grass Frog (GGF) habitat. Public paths are to be generally located in accordance with the Growling Grass Frog Conservation Area -Concept Plan (Figure 4).
R24	Public lighting must be designed and baffled to prevent light spill and glare within and adjacent to any GGF conservation area, except where agreed by the Secretary to the Department of Environment, Land, Water & Planning.
R25	Native vegetation may be removed as illustrated on Plan 6, as specified within Clause 52.17.
	GUIDELINES
G19	The layout and design of the waterways, wetlands and retarding basins (including the design of paths, bridges and boardwalks and the stormwater drainage system) should integrate with biodiversity and natural systems to the satisfaction of the responsible authority, Melbourne Water and DELWP.
G20	Planting in streetscapes and parks abutting waterways should make use of indigenous species to the satisfaction of Melbourne Water and the responsible authority.
G21	Native vegetation and scattered trees that are marked for removal on Plan 6, but are located where a local park is to be proposed, should seek to retain as much native vegetation as possible.

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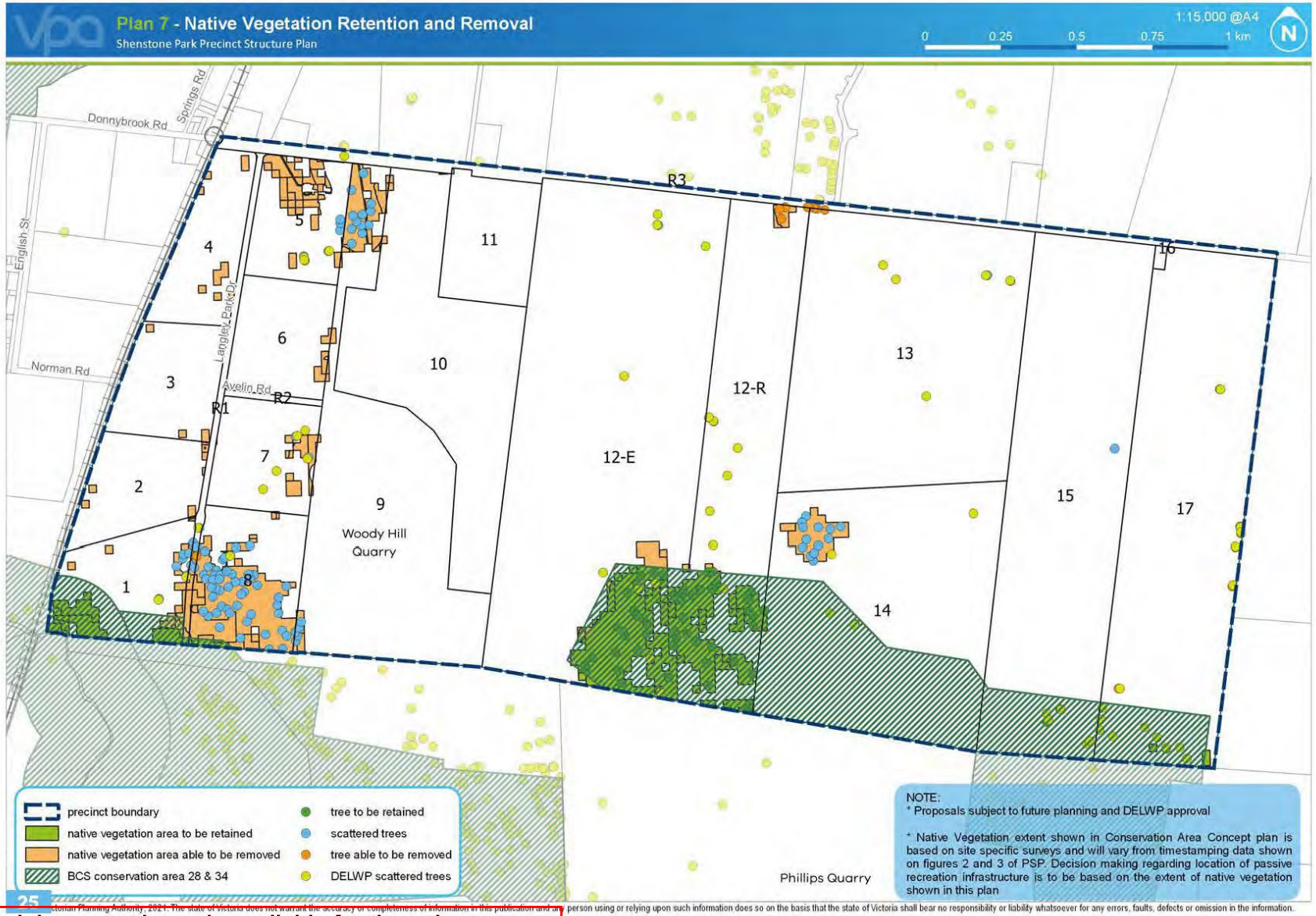
G.2 Shenstone Park PSP



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GUIDELINES	
G1	Street networks within subdivisions should be designed to maximise the number of connections onto connector streets to create a permeable and safe street network.
G2	Subdivision design should incorporate natural and built design elements which respond to local heritage and topography to assist in place making and the achievement of a "sense of place".
G3	An integrated landscaping theme should be developed along streets and access ways with: • Street trees generally used consistently across subdivisions to reinforce the local character of the area. • Variations in street tree species being used to create visual cues in appropriate locations such as at the termination of view lines, key intersections, Local Town Centre and in parks.
G4	A consistent suite of lighting and furniture should be used across subdivisions, appropriate to the type and role of street or public space, unless otherwise agreed by the responsible authority.
G5	Wherever possible, salvaged rocks should be incorporated in the design of waterways, retaining structures, fences and other landscape features.
G6	Development in areas identified on Plan 2 as having potential cultural heritage sensitivity should be avoided subject to the completion of a Cultural Management Heritage Plan.
G7	Streets should be aligned to create views and direct connections to open space areas, River Red Gums, service easements, wetlands and drainage corridors.
G8	Planting in streetscapes and parks abutting waterways should make use of indigenous species to the satisfaction of Melbourne Water and the responsible authority.

3.1.2 Tree Protection

REQUIREMENTS	
R9	Except with the written consent of Council, a minimum of 80 per cent of River Red Gums classified as Medium, Large, or Very Large (per DSE publication 'Guide for Assessment of Referred Planning Permit Applications') must be retained on each parcel for their landscape and amenity value. The trees identified as "to be retained" and "scattered trees" on Plan 7, and those identified in any site-specific Arborist Report submitted with any application will contribute to the attainment of this requirement. Where multiple contiguous parcels are owned or controlled by a single entity and planned to be developed in an integrated manner, this Requirement may be applied and met across those contiguous parcels. • Note: trees shown as "native vegetation to be removed' on Plan 7 are excluded from the total number of trees used to determine tree retention calculations by parcel. However, where voluntarily retained, these trees will contribute to retention percentage. Trees located within a Public Acquisition Overlay, future arterial road or intersection flaring as shown on Plan 4 – Land Budget, are considered as 'native vegetation to be removed' in the context of Plan 7, at the discretion of the responsible authority.
R10	Retained River Red Gums, tree rows and significant trees must be located within the public domain, including parks and street reserves, unless otherwise agreed by the responsible authority.
R11	Where trees are retained, applications for subdivision and/or development must apply Tree Protection Zones as identified within Appendix 4.6 of the Shenstone Park Precinct Structure Plan, unless otherwise agreed by the responsible authority.
R12	Small River Red Gums and other indigenous trees must be retained where located with other trees identified for retention.
R13	Large areas of closely scattered River Red Gums must be prioritised for retention to enhance local identity and visually reference the historic rural landscape except with written consent from Council.

Please Note: For additional information relating to the retention of trees within Shenstone Park please refer to Section 4.6 of this document.

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3.5 Biodiversity & Threatened Species

Operation of Commonwealth Environment Laws

On 5 September 2013, the Commonwealth Department of Environment and Energy granted an approval for urban development in Melbourne's Growth Corridors under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). This approval covers the Shenstone Park Precinct.

Provided the conditions of this approval are satisfied, individual assessment and approval under the EPBC Act is not required. These conditions include but are not limited to the following:

- Urban development must comply with habitat compensation arrangements and fees described in 'Habitat compensation under the Biodiversity Conservation Strategy – Melbourne Strategic Assessment' (Victorian Government Department of Environment and Primary Industry, August 2013) and as amended by the Victorian Government from time to time.
- Urban development must be undertaken in accordance with the Biodiversity Conservation Strategy for Melbourne's Growth Corridors (Victorian Government Department of Environment and Primary Industries, June 2013).

REQUIREMENTS	
R42	Development abutting a BCS conservation area must be in accordance with the corresponding relevant Conservation Interface Plan unless otherwise agreed to by the Department of Environment, Land, Water and Planning.
R43	Public paths or infrastructure located within a BCS conservation area must be designed to avoid and minimise disturbance to native vegetation and habitat for matters of national environmental significance and be located in accordance with the corresponding Figure 2 & 3 BCS Conservation Area Concept Plan.
R44	Any proposed development or works within a BCS conservation area must obtain the approval of the Department of Environment, Land, Water and Planning.
R45	Development within any BCS conservation area must be in accordance with the corresponding Conservation Area Concept Plan unless otherwise agreed in writing by the Department of Environment, Land, Water and Planning.

GUIDELINES	
G39	Public recreation and open space areas should be co-located with significant conservation areas and waterways to create and/or enhance any buffer area.
G40	The layout and design of the waterways, wetlands and retarding basins (including the design of paths, bridges and boardwalks and the stormwater drainage system) within conservation areas, should integrate with biodiversity and natural systems to the satisfaction of the responsible authority, Melbourne Water and the Department of Environment, Land, Water and Planning.
G41	Street trees and public open space landscaping should contribute to habitat for indigenous fauna species, in particular arboreal animals and birds, where practical.

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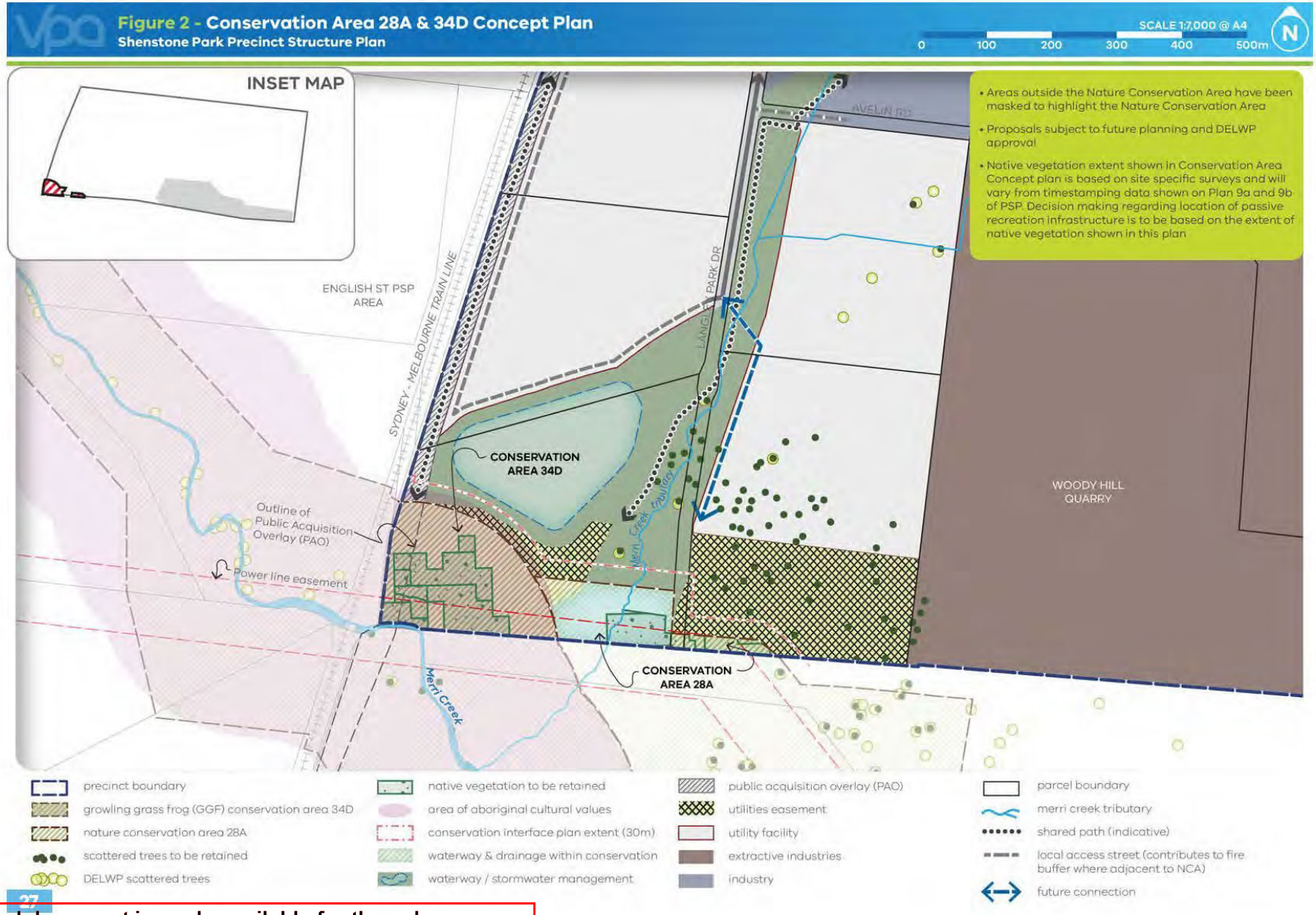

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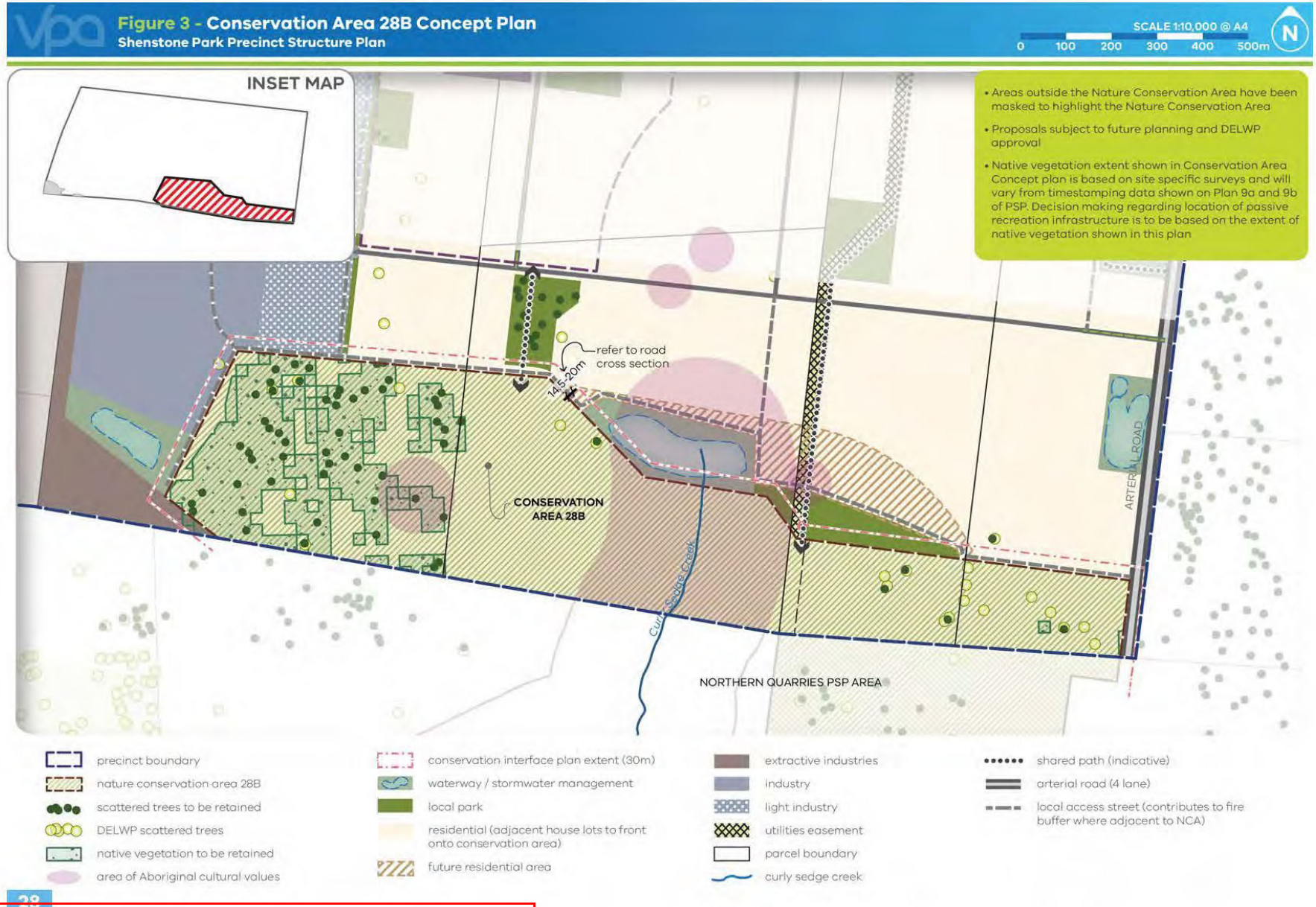

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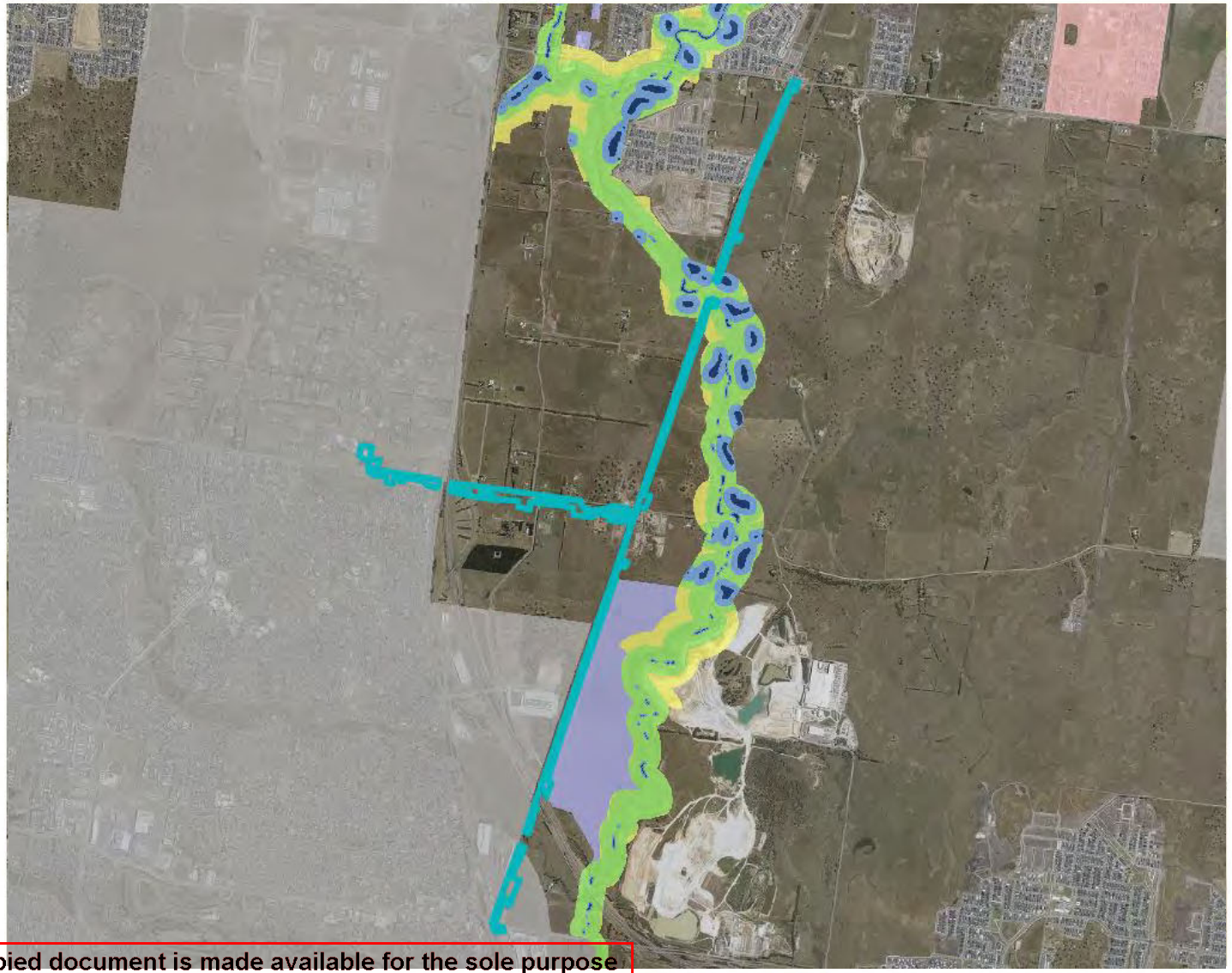
G.3 MSA Growling Grass Frog Areas of Strategic Importance and Flora Salvage and Translocation Areas

Aurora to Bald Hill Main NDW
MSA Growling Grass Frog Areas of Strategic Importance and Flora Salvage and Translocation Areas



MSA Growling Grass Frog Areas of Strategic Importance

- Area of Strategic Importance - Constructed Growling Grass Frog wetland
- Area of Strategic Importance - Existing retained waterbody
- Area of Strategic Importance - Indicative new wetland location
- Area of Strategic Importance - Instream pool
- Area of Strategic Importance - Buffer around waterbodies
- Terrestrial habitat buffer to ASI and waterway
- Other terrestrial habitat
- Not suitable for new wetland construction

MSA Salvage and Translocation

- Matted Flax-lily
- Matted Flax-lily and Seasonal Herbaceous Wetlands
- Seasonal Herbaceous Wetlands
- Spiny Rice-flower
- Spiny Rice-flower and Seasonal Herbaceous Wetlands

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Appendix H: DEECA NVR Report

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Native vegetation removal report

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 report **is not an assessment by DELWP** of the proposed native vegetation removal. Native vegetation information and offset requirements have been determined using spatial data provided by the applicant or their consultant.

Date of issue: **12/11/2025**
Time of issue: **10:57 am**

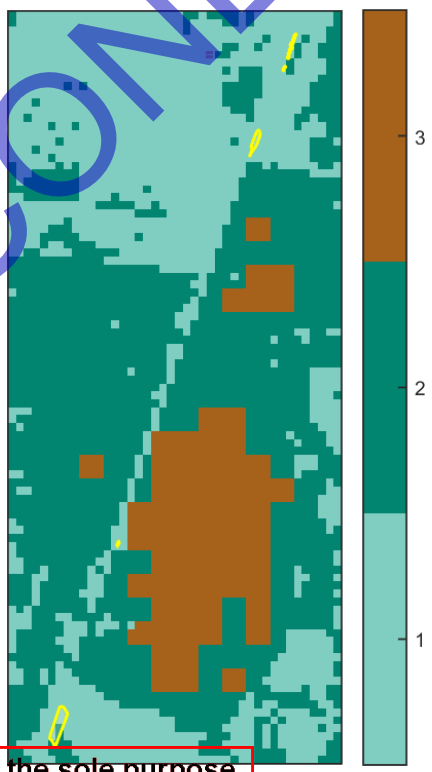
Report ID: SAP_2025_002

Project ID	Stantec_300250055_Aurora_to_Bald_Hill_ENSYM_20251024

Assessment pathway

Assessment pathway	**Intermediate Assessment Pathway**
Extent including past and proposed	0.444 ha
Extent of past removal	0.000 ha
Extent of proposed removal	0.444 ha
No. Large trees proposed to be removed	0
Location category of proposed removal	Location 2 The native vegetation is in an area mapped as an endangered Ecological Vegetation Class (as per the statewide EVC map). Removal of less than 0.5 hectares of native vegetation in this location will not have a significant impact on any habitat for a rare or threatened species.

1. Location map



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Offset requirements if a permit is granted

Any approval granted will include a condition to obtain an offset that meets the following requirements:

General offset amount[1]	0.250 general habitat units
Vicinity	Port Phillip and Westernport Catchment Management Authority (CMA) or Hume City Council
Minimum strategic biodiversity value score[2]	0.473
Large trees	0 large trees

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

Appendix 1 includes information about the native vegetation to be removed

Appendix 2 includes information about the rare or threatened species mapped at the site.

Appendix 3 includes maps showing native vegetation to be removed and extracts of relevant species habitat importance maps

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1 The general offset amount required is the sum of all general habitat units in Appendix 1.

2 Minimum strategic biodiversity score is 80 per cent of the weighted average score across habitat zones where a general offset is required

Next steps

Any proposal to remove native vegetation must meet the application requirements of the Intermediate Assessment Pathway and it will be assessed under the Intermediate Assessment Pathway.

If you wish to remove the mapped native vegetation you are required to apply for a permit from your local council. Council will refer your application to DELWP for assessment, as required. **This report is not a referral assessment by DELWP.**

This *Native vegetation removal report* must be submitted with your application for a permit to remove, destroy or lop native vegetation.

Refer to the *Guidelines for the removal, destruction or lopping of native* vegetation (the Guidelines) for a full list of application requirements This report provides information that meets the following application requirements:

- The assessment pathway and reason for the assessment pathway
- A description of the native vegetation to be removed (met unless you wish to include a site assessment)
- Maps showing the native vegetation and property
- The offset requirements determined in accordance with section 5 of the Guidelines that apply if approval is granted to remove native vegetation.

Additional application requirements must be met including:

- Topographical and land information
- Recent dated photographs
- Details of past native vegetation removal
- An avoid and minimise statement
- A copy of any Property Vegetation Plan that applies
- A defendable space statement as applicable
- A statement about the Native Vegetation Precinct Plan as applicable
- An offset statement that explains that an offset has been identified and how it will be secured.

MODELLED CONDITION

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For more information contact the DELWP Customer Service Centre 136 186

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Obtaining this publication does not guarantee that an application will meet the requirements of Clauses 52.16 or 52.17 of the Victoria Planning Provisions and Victorian planning schemes or that a permit to remove native vegetation will be granted.

Notwithstanding anything else contained in this publication, you must ensure that you comply with all relevant laws, legislation, awards or orders and that you obtain and comply with all permits, approvals and the like that affect, are applicable or are necessary to undertake any action to remove, lop or destroy or otherwise deal with any native vegetation or that apply to matters within the scope of Clauses 52.16 or 52.17 of the Victoria Planning Provisions and Victorian planning schemes.

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Appendix 1: Description of native vegetation to be removed

All zones require a general offset, the general habitat units each zone is calculated by the following equation in accordance with the Guidelines:

General habitat units = extent x condition 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 in a GIS file						Information calculated by EnSym						
Zone	**Type**	**BioEVC**	**BioEVC conservation status**	**Large tree(s)**	**Partial removal**	**Modelled Condition score**	**Polygon Extent**	**Extent without overlap**	**SBV score**	**HI score**	**Habitat units**	**Offset type**
8-HZ	Patch	vvp_0132_61	Endangered	0	no	0.520	0.318	0.318	0.569		0.195	General
1-HZ	Patch	vvp_0055_61	Endangered	0	no	0.750	0.007	0.007	0.820		0.007	General
2a-HZ	Patch	vvp_0055_61	Endangered	0	no	0.308	0.086	0.086	0.687		0.033	General
3a-HZ	Patch	vvp_0055_61	Endangered	0	no	0.670	0.003	0.003	0.510		0.002	General
3b-HZ	Patch	vvp_0055_61	Endangered	0	no	0.670	0.003	0.003	0.510		0.002	General
3c-HZ	Patch	vvp_0055_61	Endangered	0	no	0.339	0.027	0.027	0.510		0.010	General

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Appendix 2: Information about impacts to rare or threatened species' habitats on site

This is not applicable in the Intermediate Assessment Pathway.

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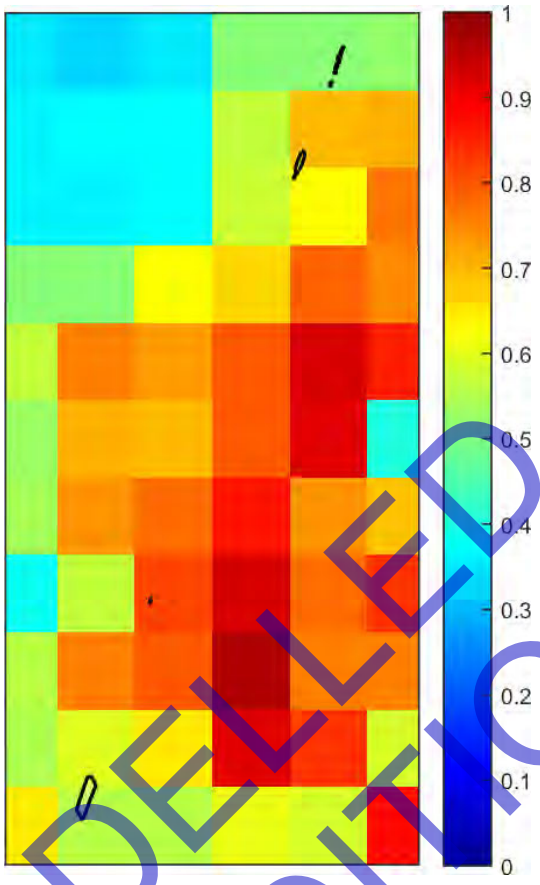
Appendix 3 – Images of mapped native vegetation

2. Strategic biodiversity values map



3. Aerial photograph showing mapped native vegetation



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4. Map of the property in context



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Yellow boundaries denote areas of proposed native vegetation removal.

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Appendix C: Cultural Heritage Management Plan

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Aurora to Bald Hill Non-Drinking Water Pipeline Stage 1, Craigieburn, Mickleham and Donnybrook, Victoria

Cultural Heritage Management Plan CHMP 19688

Heritage Advisors: Meredith Filihia

Authors: Meredith Filihia, Conor Gamble, Georgia Carra & Dylan Branda-Pawlaczyk

Sponsor: Yarra Valley Water Corporation

Prepared by Ripple JV | 25 September 2025

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Wurundjeri
Woi-wurrung

Cultural Heritage
Aboriginal Corporation

25th September 2025

File No. WT1777 CHMP No. 19688

Jen Sweatman
Yarra Valley Water Corporation
25 Lucknow Street
Mitcham,
VIC 3132

Dear Jen,

Cultural Heritage Management Plan 19688: Aurora to Bald Hill Non-Drinking Water Main, Craigieburn, Mickleham and Donnybrook, Victoria.

I refer to your application to the Wurundjeri Woi-wurrung Cultural Heritage Aboriginal Corporation dated 12th May 2025 seeking approval of the Cultural Heritage Management Plan 19688 Aurora to Bald Hill Non-Drinking Water Main, Craigieburn, Mickleham and Donnybrook, Victoria: Cultural Heritage Management Plan (25th September 2025).

With reference to s.53(1) and s.61(a)-(e), and in accordance with s.63(1) of the *Aboriginal Heritage Act* 2006 (the Act), the Wurundjeri Woi-wurrung Cultural Heritage Aboriginal Corporation has considered and approved this plan.

If you require any additional information about this advice, please contact me on the number below.

Yours sincerely,

Wendy Morrison

Cultural Heritage Unit Manager, Wurundjeri Woi-wurrung Cultural Heritage Aboriginal Corporation

Cc. Meredith Filihia, Ecology & Heritage Partners

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Aurora to Bald Hill Non-Drinking Water Main, Craigieburn, Mickleham and Donnybrook, Victoria: Cultural Heritage Management Plan

Number: 19688

ACTIVITY SIZE:	Large
ASSESSMENT:	Complex
ABORIGINAL HERITAGE:	Present
REGISTERED ABORIGINAL PARTY:	Wurundjeri Woi-wurrung Cultural Heritage Aboriginal Corporation
SPONSOR:	Yarra Valley Water Corporation
HERITAGE ADVISOR :	Meredith Filihia
AUTHORS:	Meredith Filihia, Conor Gamble, Maria Daikos, Georgia Carra and Dylan Branda-Pawlaczyk
DATE:	18 September 2025

ACKNOWLEDGEMENTS

We thank the following people and organisations for their contribution to the project:

- Ripple JV for project and site information.
- Yarra Valley Water Corporation for project and site information.
- Wurundjeri Woi-wurrung Cultural Heritage Aboriginal Corporation for assistance in the field, cultural heritage information and evaluation of the report.
- First Peoples – State Relations.

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DOCUMENT CONTROL

Activity	Aurora to Bald Hill NDW Main, Stage 1
Address	Craigieburn, Mickleham and Donnybrook, Victoria
Project number	17433
Project manager	Meredith Filihia
Report author(s)	Meredith Filihia, Conor Gamble, Maria Daikos, Georgia Carra and Dylan Branda-Pawlaczyk
Report reviewer	Meredith Filihia, Ian Ostericher
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Mapping	Monique Elsley, Diana Valadares and Masoume Rashidi
File name	17433_ CHMP 19688_ Aurora to Bald Hill NDW Main_ v3.1_23072025_MF
Client	Yarra Valley Water Corporation
RAP	Wurundjeri Woi-wurrung Cultural Heritage Aboriginal Corporation
Bioregion	Victorian Volcanic Plain
CMA	Melbourne Water
Council	City of Whittlesea, Hume City Council

Report versions	Comments	Comments updated by	Date submitted
Draft v1	Draft for QA Review	Meredith Filihia	02.04.2025
Draft v2	Draft to Client for Comment	Meredith Filihia	07.04.2025
Final v1	Final to RAP for Evaluation	Meredith Filihia	06.05.2025
Final v2	Final to RAP for Evaluation	Meredith Filihia	27.06.2025
Final v3	Final to RAP for Evaluation	Meredith Filihia	23.07.2025
Final v4	Approved CHMP		

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ABBREVIATIONS

See Glossary (Appendix 7) for explanation of some of these terms.

Acronym	Description
Act, the	*Aboriginal Heritage Act 2006*
BP	Before Present
CHMP	Cultural Heritage Management Plan
CMA	Catchment Management Authority
DPC	Department of the Premier and Cabinet (Victoria)
EVC	Ecological Vegetation Class
FP-SR	First Peoples – State Relations, formally Aboriginal Victoria.
HA	Heritage Advisor
HV	Heritage Victoria
LDAD	Low Density Artefact Distribution
LGM	Last Glacial Maximum
NDW	Non-drinking Water
RAP	Registered Aboriginal Party
Regulations, the	*Aboriginal Heritage Regulations 2018*
RTP	Radial Test Pit
RWTP	Recycled Water Treatment Plant
SGD	Significant Ground Disturbance
SLV	State Library of Victoria
STP	Shovel Test Pit
TP	Test Pit
VAHR	Victorian Aboriginal Heritage Register
VHI	Victorian Heritage Inventory
VHR	Victorian Heritage Register
WWCHAC	Wurundjeri Woi-wurrung Cultural Heritage Aboriginal Corporation

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EXECUTIVE SUMMARY

Compliance requirements are set out in Part 1 of the Cultural Heritage Management Plan.

Introduction

Ripple JV was commissioned by the Sponsor (Yarra Valley Water Corporation), to prepare a complex Aboriginal Cultural Heritage Management Plan (CHMP) for Stage 1 of the proposed Aurora to Bald Hill Non-Drinking Water (NDW) Main at Craigieburn, Mickleham and Donnybrook, Victoria (Hume City Council and City of Whittlesea) (Map 2).

The Activity

The activity is the construction of a non-drinking water (NDW) transfer pipeline between the existing transfer main along Craigieburn Road East to a Donnybrook Road distribution main via Mt Ridley NDW reservoir. Both open cut excavation and trenchless (under-boring) excavation will be used in construction. Open cut trenching excavations may reach up to 5 m in width and 5 m in depth, while excavations for launch and retrieval shafts may reach up to 17 m or deeper. Access tracks will be constructed along the north-south alignment of the pipeline within the pipe track owned by the Sponsor; laydown areas, site compounds and a shared user path are also provided for.

The Activity area and Location

The activity area is approximately 71.79 ha in size and located within the Hume City and City of Whittlesea local government areas, between Donnybrook Road in the north and Craigieburn Road East in the south with extensions on Summerhill Road and Mt. Ridley Road (Map 2).

Assessment & Results

The assessments undertaken as part of this CHMP were a background review (desktop assessment), a field survey (standard assessment) and a subsurface excavation (complex assessment). The desktop assessment found that there is one previously registered Aboriginal Place in the activity area. No new Aboriginal cultural heritage was recorded as a result of the standard assessment. The complex assessment resulted in the registration of one new Aboriginal Place, VAHR 7822-4957 (Aurora to Summerhill LDAD), a Low Density Artefact Distribution comprised of 11 components made of silcrete, quartzite, tachylite and quartz , recorded during the complex assessment (Table ES1). The artefacts were found in disturbed contexts in the pipe easement and in undisturbed contexts amongst mature native trees and on the creekline of Merri Creek.

Table ES1: Aboriginal Places in the Activity area

Place Name	Place Type	Location	Place Identified During:
VAHR 7822-1574 (Craigieburn Bypass 6)	Artefact Scatter	Plain landform, found during construction of freeway	Desktop
VAHR 7822-4957 (Aurora to Summerhill LDAD)	Low Density Artefact Distribution	South bank of Malcolm Creek, north bank of Merri Creek and amongst a stand of mature red gum trees.	Complex Assessment

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PART 1

CULTURAL HERITAGE MANAGEMENT CONDITIONS

These conditions become compliance requirements once the Cultural Heritage Management Plan is approved. Failure to comply with a condition is an offence under section 67A of the *Aboriginal Heritage Act 2006*.

The Cultural Heritage Management Plan must be readily accessible to the sponsor and their employees and contractors when carrying out the activity.

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1 SPECIFIC CULTURAL HERITAGE MANAGEMENT CONDITIONS

1.1 General Conditions

1.1.1 Condition 1: Hard copy of CHMP on-site for the duration of the activity

To be completed during the activity

A hard copy of this approved CHMP must be kept within the activity area for the duration of the activity and be readily available to all on-site staff, contractors and sub-contractors, as well as any RAP representative, Aboriginal Heritage Officer or Authorised Officer who may attend the activity area during the works.

1.1.2 Condition 2: Cultural Heritage Awareness Training

To be completed before and during the activity

All personnel who will be involved in ground disturbance works within the approved CHMP activity area must complete a cultural heritage awareness induction conducted by a representative of the RAP before they can undertake those works.

At a minimum, one induction must be conducted prior to the commencement of the activity. Where additional personnel involved in ground disturbance works are required after activity commencement, these personnel must also complete a cultural heritage awareness induction conducted by a RAP representative prior to commencing ground disturbing works within the activity area.

A heritage advisor must be engaged by the sponsor and must also attend these inductions and prepare an induction booklet containing Part 1 of the approved CHMP for distribution to each inductee. Each induction must include a brief history of the Aboriginal occupation of the activity area and broader region; a summary of the archaeological investigations conducted within the activity area; specific details of any Aboriginal Places and Heritage located during the CHMP assessment; a summary of the conditions and contingencies contained within the approved CHMP; and the obligations of site workers/contractors and Sponsors under the Victorian *Aboriginal Heritage Act 2006*. The RAP representative will fill out a Cultural Heritage Induction Checklist which will be provided as a record of inducted individuals.

The RAP must be notified at least four weeks before the inductions are required, prior to or during the activity. A Worker Request Form must be completed and sent to the RAP to book a representative for each induction.

Each induction must be organised and paid for by the Sponsor.

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1.1.3 Condition 3: RAP Inspections

To be completed before and during the activity

The following Inspections must be completed by a RAP representative over the duration of the activity in order to review the progress of the activity, check that each applicable condition and contingency contained within the approved CHMP is in effect, and determine if any unexpected cultural heritage has been uncovered in the work areas.

RAP Inspections must occur at the following points:

- One inspection must be completed as soon as practicable following each stage of topsoil stripping **at each excavation location** presented in Table 1 (see Map 1a series.) All excavated spoil must be retained within the activity area for inspection;
- One inspection must be completed as soon as practicable following each stage of trenching at each excavation location presented in Table 1 (Map 1a series). All excavated spoil must be retained within the activity area for inspection.

Table 1: Location of CHMP Compliance Inspections (Map 1 series)

Inspection Location	Coordinates (GDA94, Zone 55)		Map
	Easting	Northing	
1	320090.3	5841395	Map 1a - i
2	320060.8	5841304	Map 1a - i
3	319281.1	5839747	Map 1a - ii
4	317721.3	5839977	Map 1a - iii
5	319119.5	5838350	Map 1a - iv
6	319327.4	5838917	Map 1a- iv
7	319797.4	5837541	Map 1a - v
8	318771	5837266	Map 1a - v

The requirement for additional inspections must be determined in consultation with the RAP Cultural Heritage Unit.

A RAP representative must conduct the inspections, and a heritage advisor/archaeologist may also attend the inspections if requested by the Sponsor. If the inspections reveal suspected non-compliance with the approved CHMP, then the procedure outlined in Contingency 3 must be initiated. If suspected Aboriginal cultural heritage (including Human Remains) is identified during the inspections, then the procedure outlined in Contingency 4 must be initiated. If the inspection reveals a suspected breach of the Victorian *Aboriginal Heritage Act 2006* then this must be reported to First Peoples - State Relations (FP-SR) immediately and an Authorised Officer or Aboriginal Heritage Officer may be called out and/or a Stop Order may be issued by FP-SR.

The RAP must be notified at least four weeks before the RAP Inspections are required, prior to or during the activity. A Worker Request Form must be completed and sent to the RAP to book a representative for each RAP Inspection.

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The procedures outlined in this condition must be organised and paid for by the sponsor.

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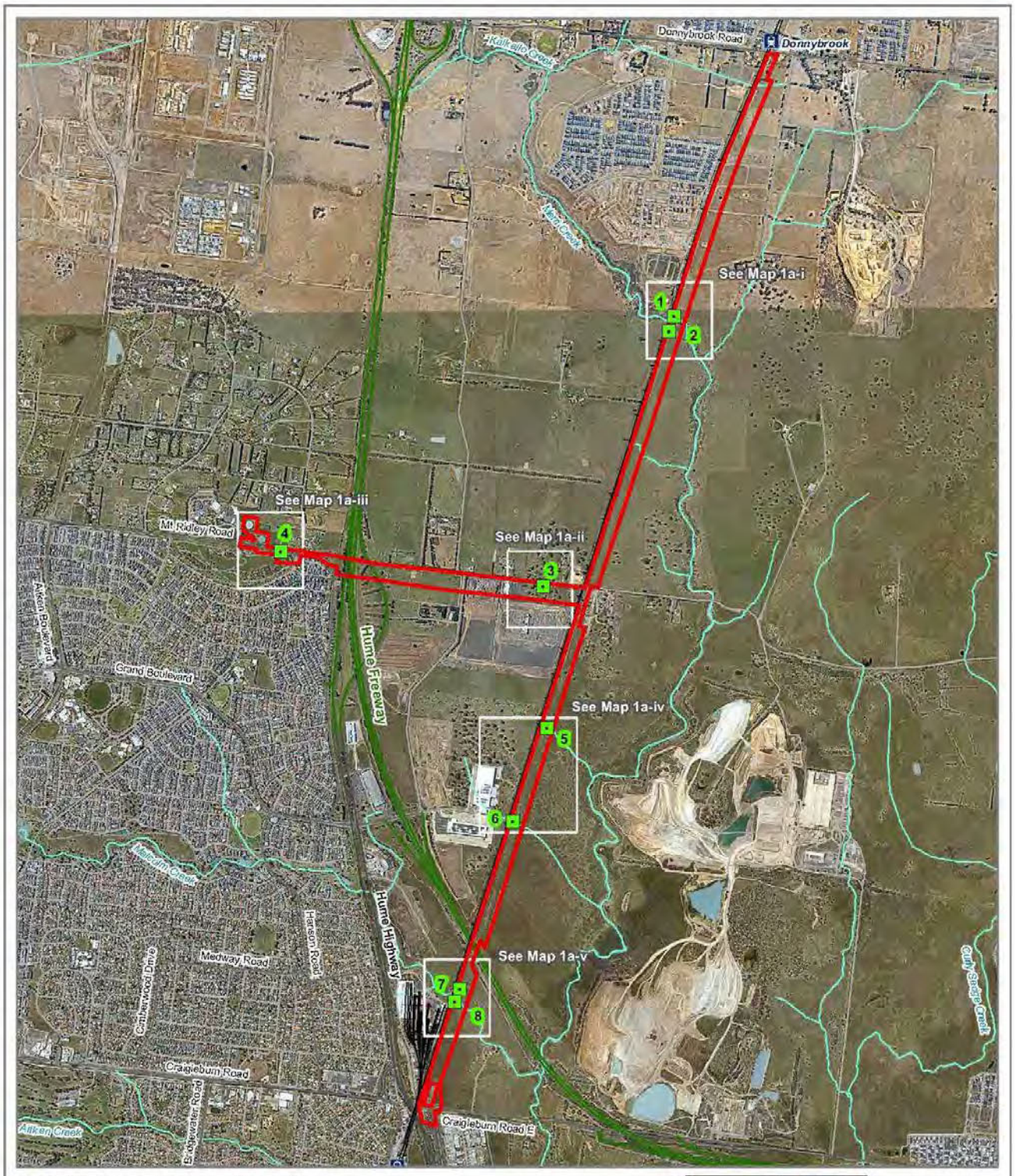

Map 1a Overview
Management Conditions
Cultural Heritage Management Plan: Aurora to Bald Hill Non-Drinking Water Main (Stage 1)

Legend
Activity Area
Condition 3:
Location of CHMP RAP inspections (general area that the pipe will cross)



N

0 500
Metres

Local Government: City of Whittlesea and Hume City Council
25k Mapsheet: Donnybrook 7822-1-1
Coordinate System: MGA Zone 55 (GDA94)
Map Scale: 1:30,000

VicMap Data: The State of Victoria does not warrant the accuracy or completeness of information in this publication and any person using or relying upon such information does so on the basis that the State of Victoria shall bear no responsibility or liability whatsoever for any errors, faults, defects or omissions in the information.

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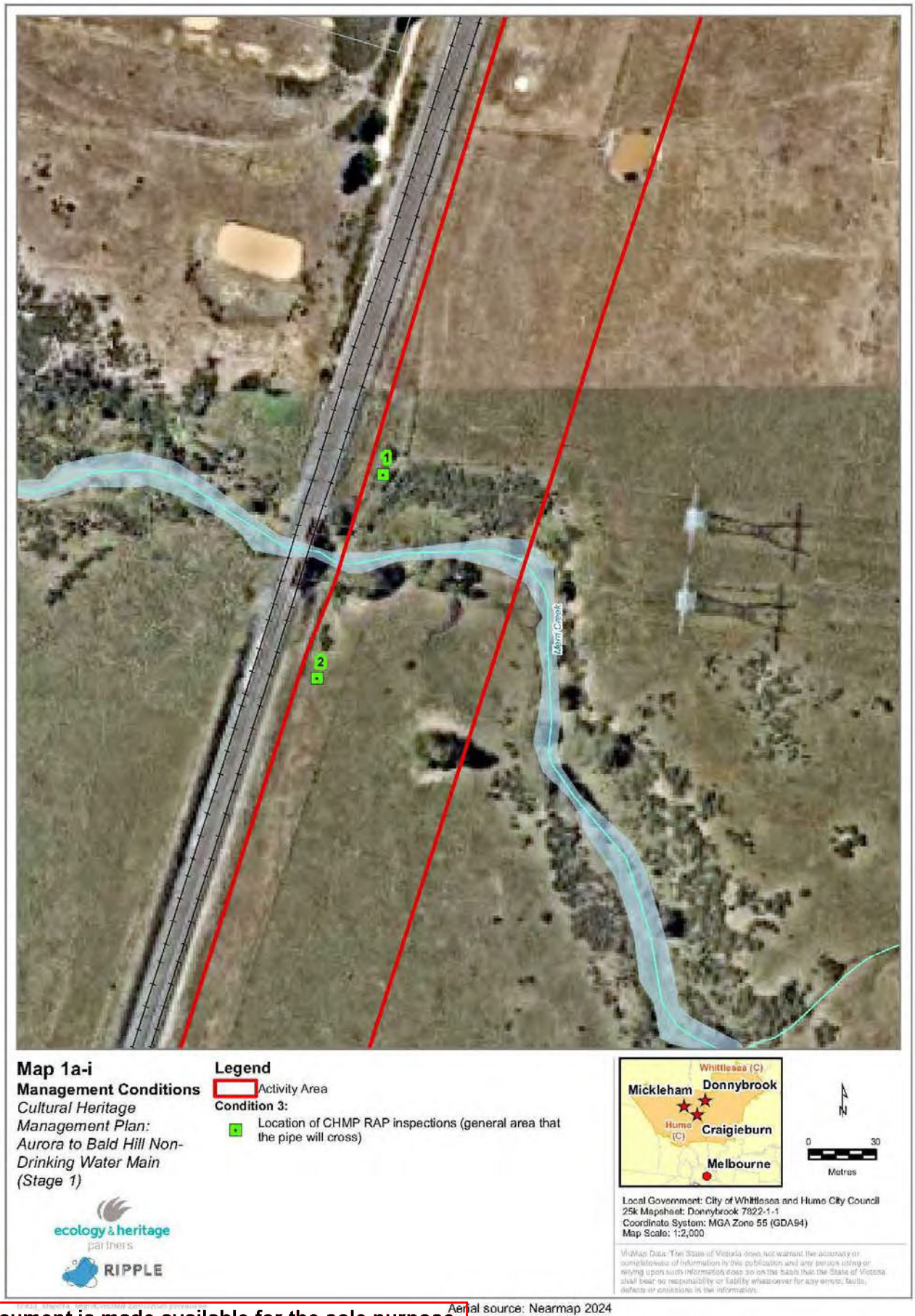

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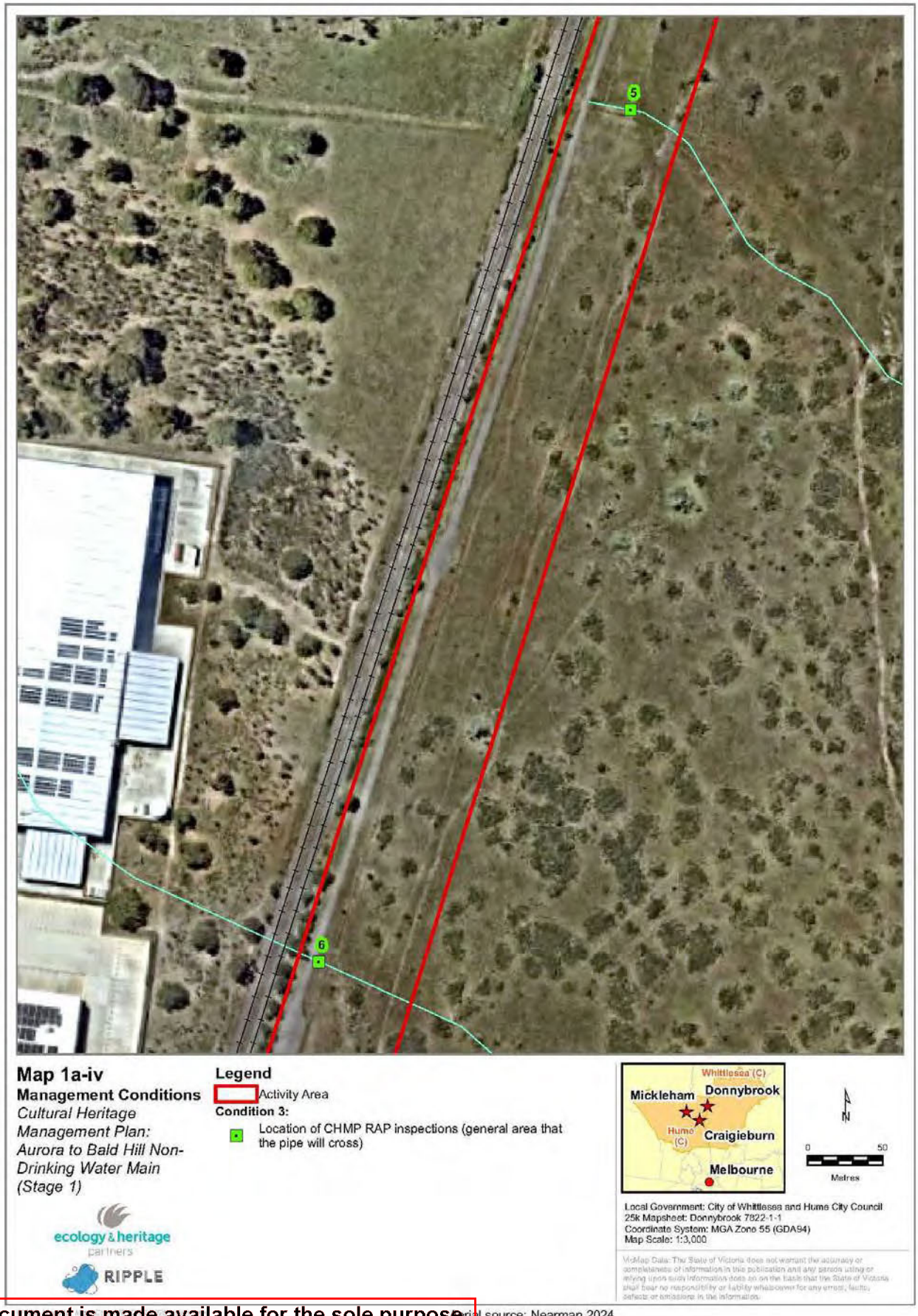

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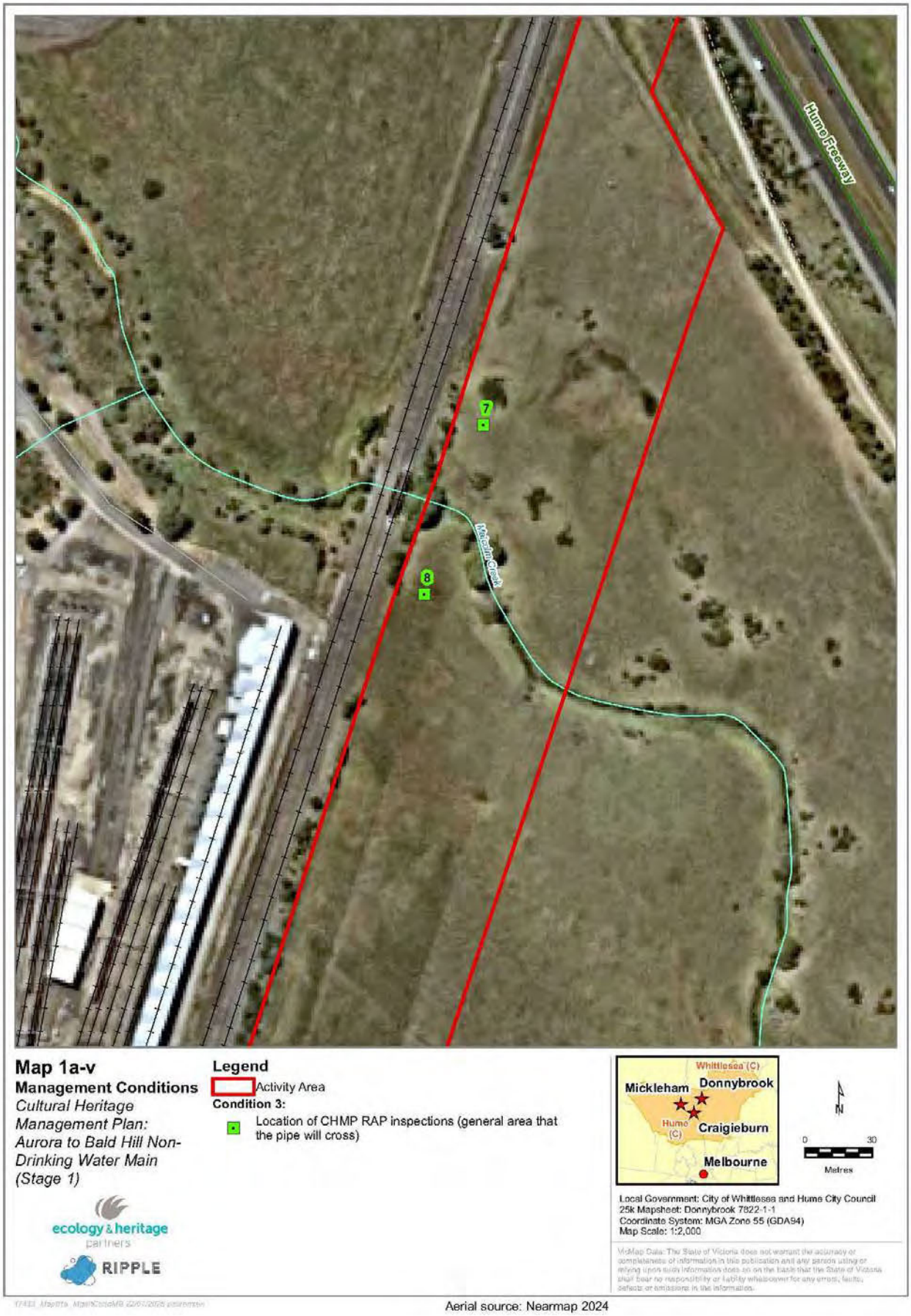

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1.1.4 Condition 4: Notification to RAP of Commencement and Conclusion of Activity

To be completed before and after the activity

At least four weeks prior to commencement of the activity the Sponsor must notify the RAP of the intended activity commencement date.

No later than four weeks after the conclusion of the activity, the Sponsor must notify the RAP of the activity conclusion date.

1.1.5 Condition 5: Activity Area

To be completed before and during the activity

All works associated with the activity must be conducted within the activity area delineated within this approved CHMP (Map 1b).

The Sponsor is responsible for organising and paying for the procedures outlined above.

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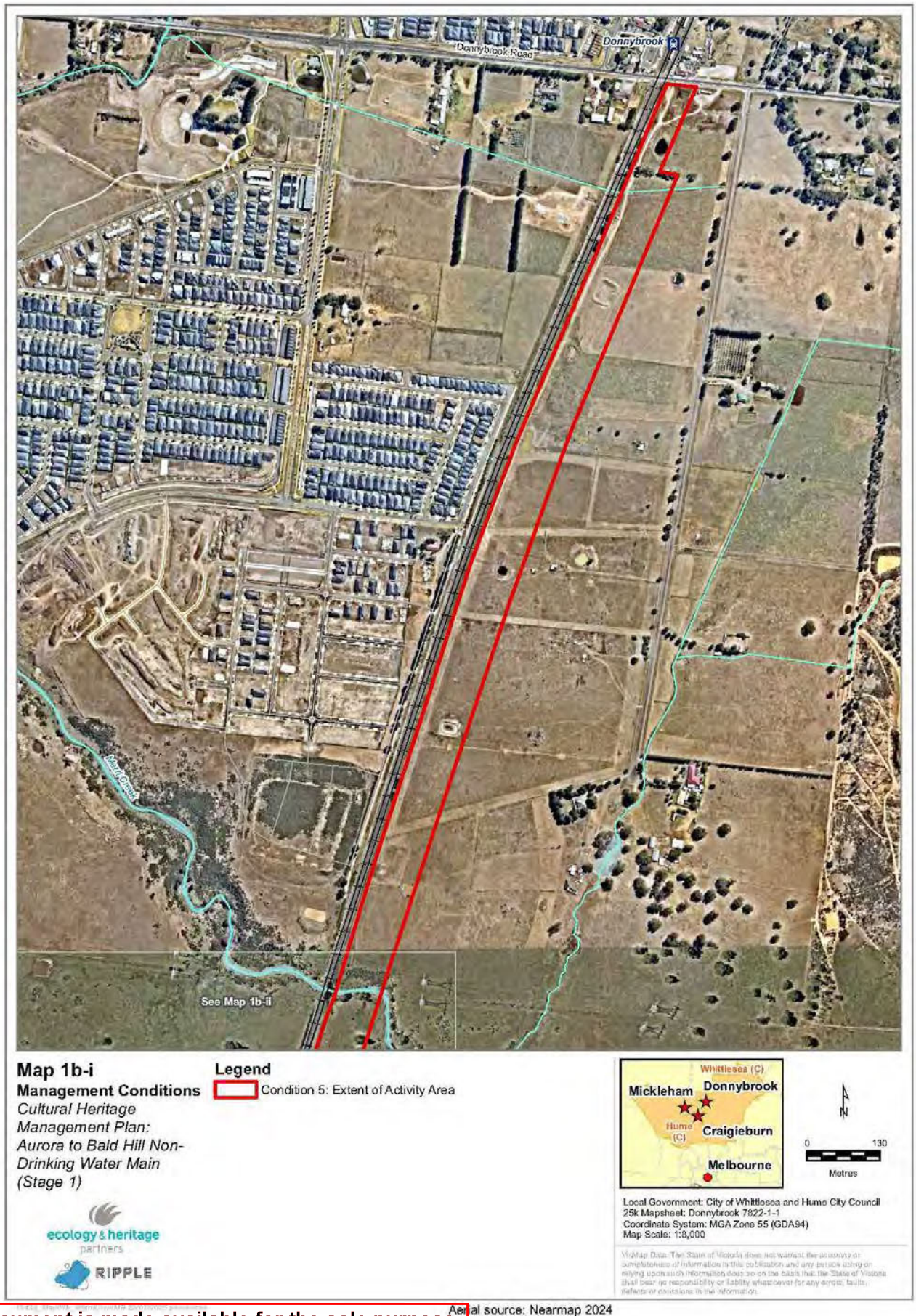

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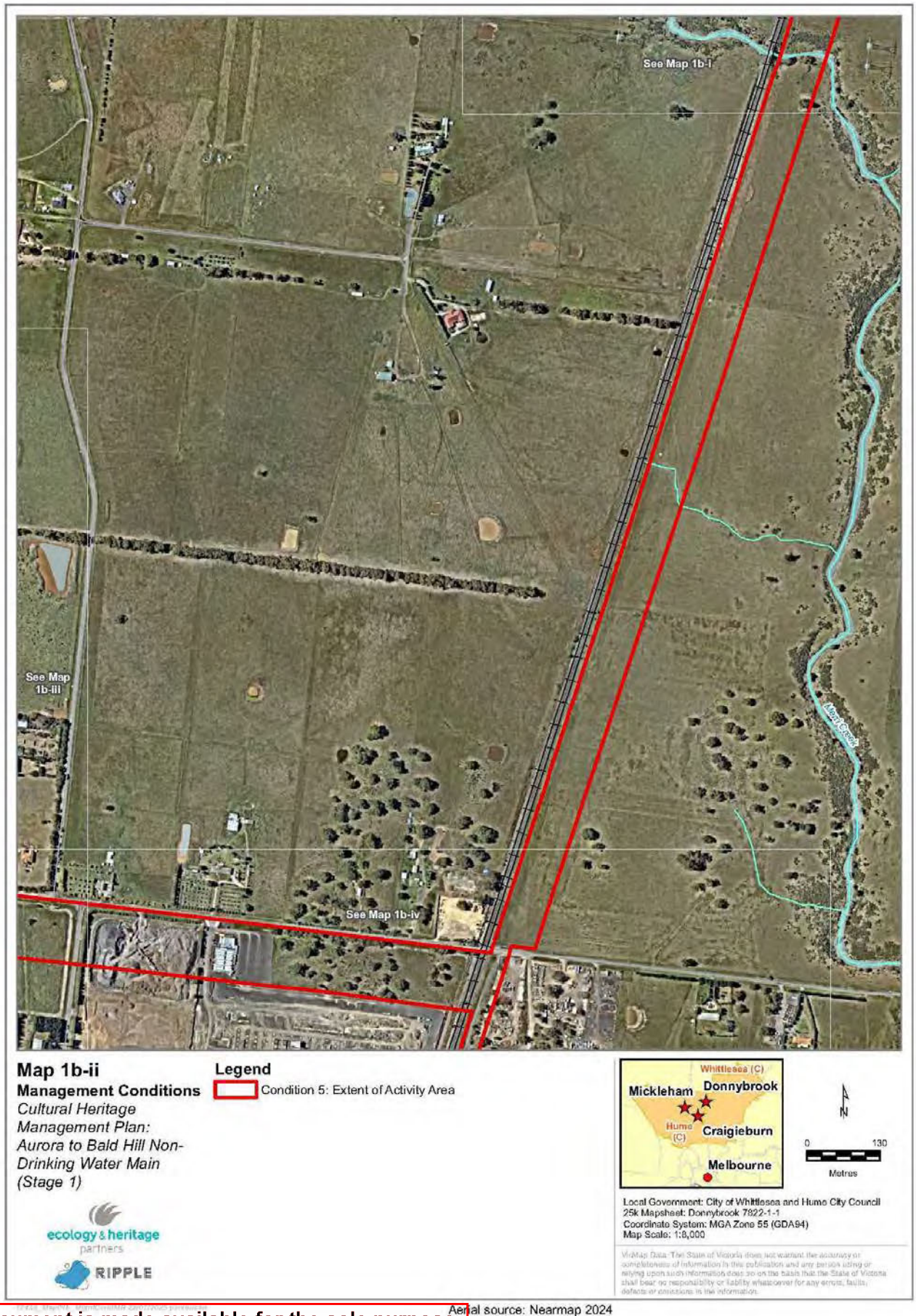

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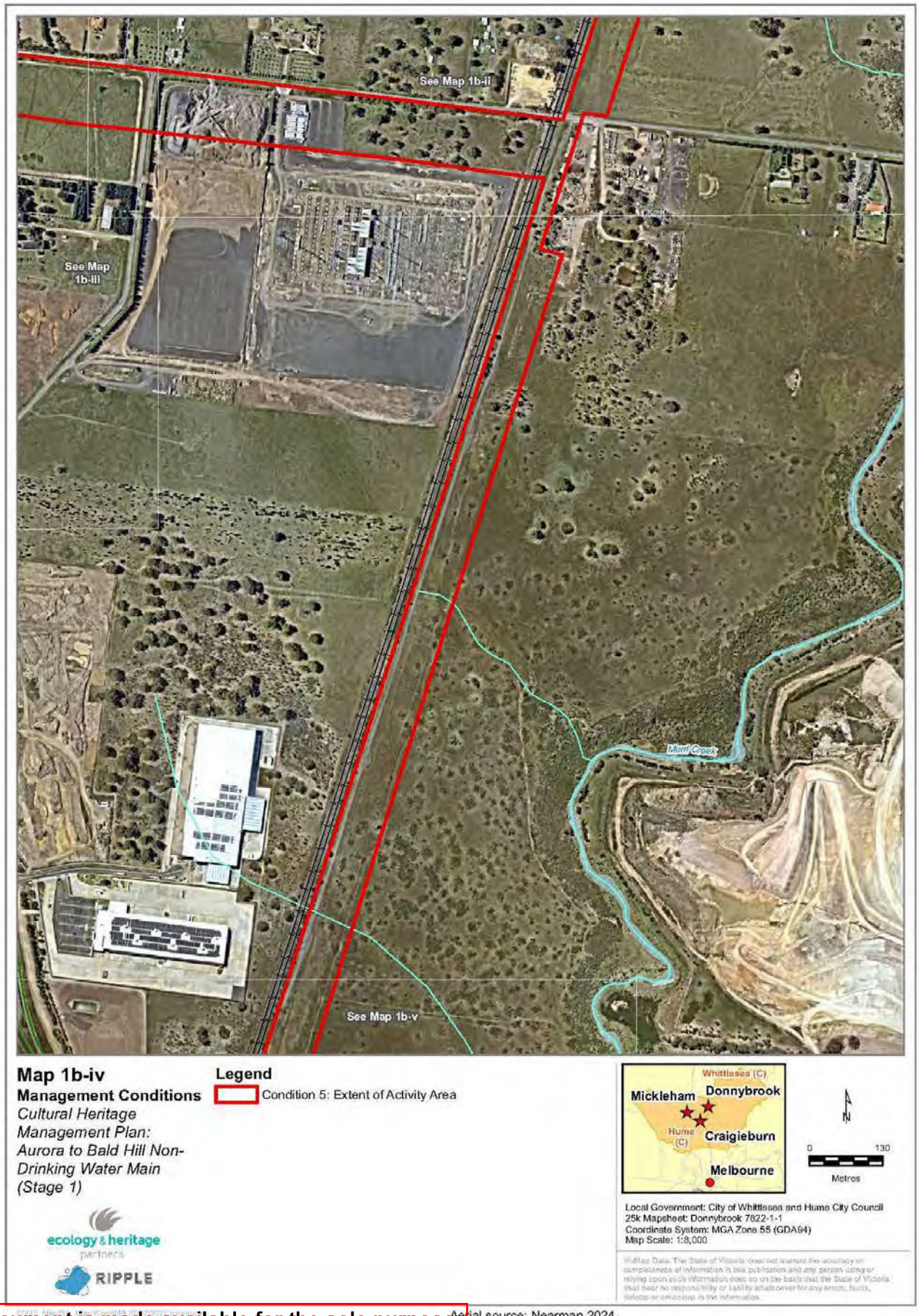

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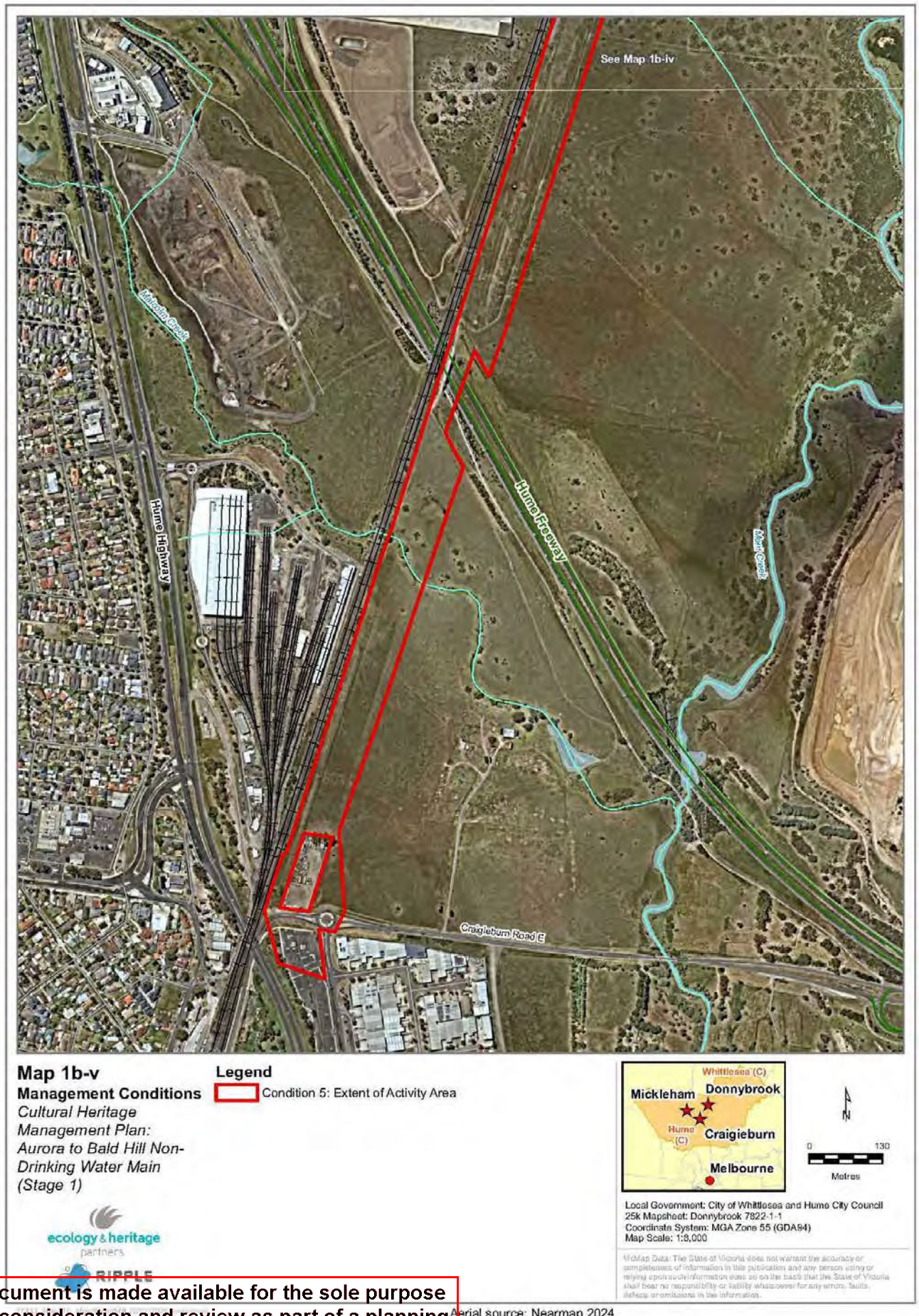

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Aboriginal cultural heritage is present within the activity area; therefore, specific management conditions regarding Aboriginal Places are presented below.

1.2 Conditions in Relation to the Management of Aboriginal Places

1.2.1 Condition 6: Harm is permitted to VAHR 7822-1574 (Craigieburn Bypass 6)

This condition must be completed during the activity.

Harm is permitted to VAHR 7822-1574 (Craigieburn Bypass 6) under the CHMP and, as such, no specific harm avoidance or management measures are required (Map 1d).

1.2.2 Condition 7: Harm is permitted to VAHR 7822-4957 (Aurora to Summerhill Rd LDAD)

This condition must be completed during the activity.

Harm is permitted to VAHR 7822-4957 (Aurora to Summerhill LDAD) under the CHMP and, as such, no specific harm avoidance or management measures are required (Map 1e).

1.2.3 Condition 8: Repatriation of VAHR 7822-4957 (Aurora to Summerhill Rd LDAD)

To be completed after the activity

Within three months of the completion of the activity, Aboriginal cultural heritage collected from registered place VAHR 7822-4957(Aurora to Summerhill LDAD) during the preparation of this CHMP must be returned to the RAP in accordance with the RAP cultural heritage repatriation policy current at the time of the return. The Heritage Advisor must retain custody of the cultural heritage until it is returned to the RAP. Reburial of the Aboriginal cultural heritage must occur if requested by the RAP. Any reburial must occur within six months of the completion of the activity, the location of any reburial must be within the activity area and at a location determined in consultation with the RAP, and reburial must be completed in accordance with the RAP cultural heritage repatriation policy current at the time of the reburial.

The procedures outlined in this condition must be organised and paid for by the Sponsor.

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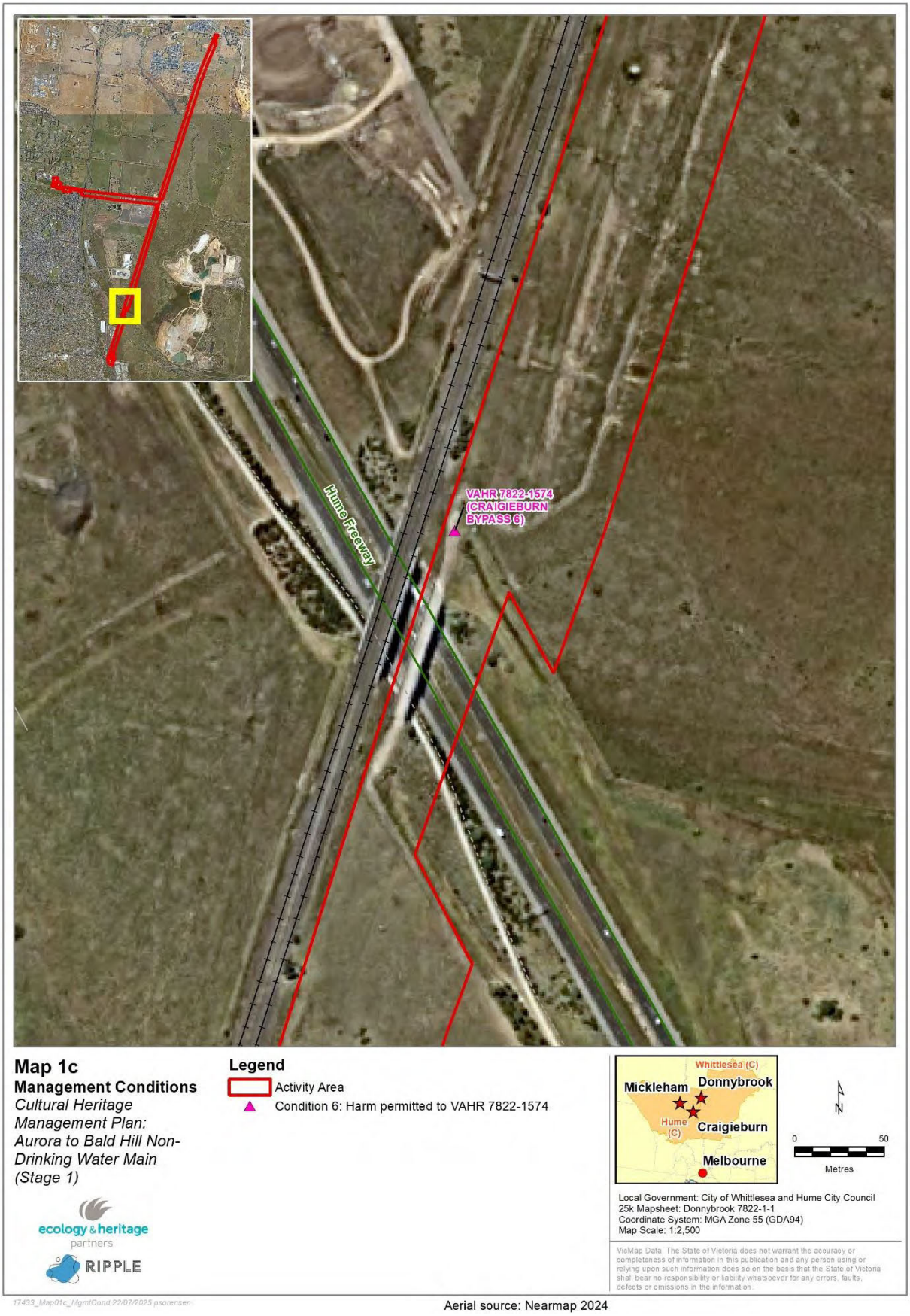

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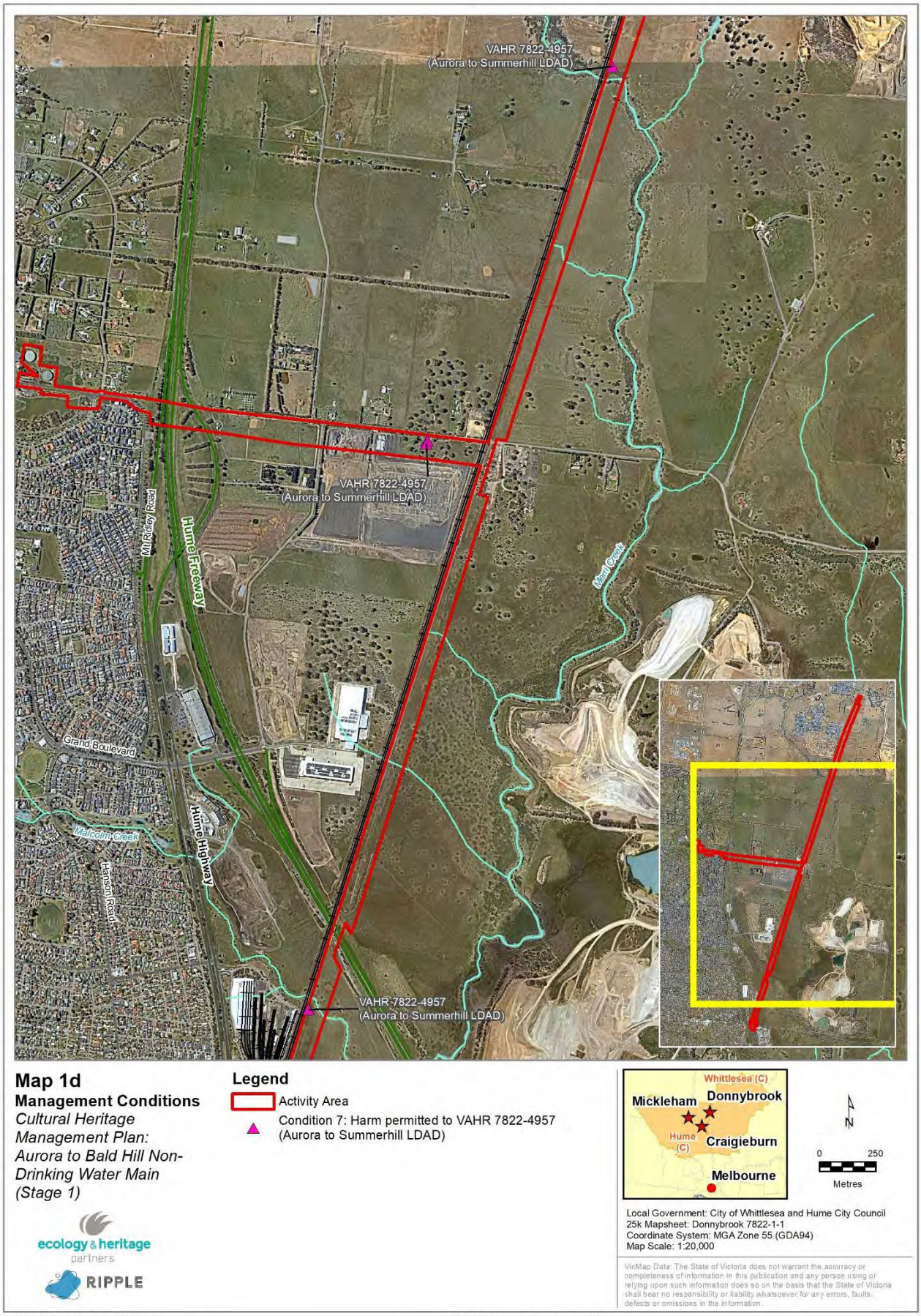

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1.2.4 Condition 9: Requirement for bore head retrieval under RAP Observation

To be completed during the activity.

In the event that excavations are required to retrieve a stuck or broken bore head within the activity area the following procedure must be implemented:

The excavation of any topsoils above the culturally sterile base layer or bedrock at the location of the bore head retrieval excavations must be observed by RAP representatives;

1. A minimum of two RAP representatives must be booked and confirmed by the RAP to observe the excavations associated with the bore head retrieval works. A Worker Request Form must be submitted to the RAP at least four weeks prior to the commencement of the excavations for bore head retrieval. A listed Heritage Advisor must also be present for the duration of the RAP Observation; and
2. The RAP must be notified in writing at least four weeks prior to the commencement of the excavations required for bore head retrieval.

If Aboriginal cultural material is located during the RAP observation, then it must be managed as per the methodology endorsed in writing by the RAP prior to the commencement of the bore head retrieval works.

The procedures outlined in this condition must be organised by the Sponsor.

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2 CONTINGENCY PLANS

2.1 Contingency Regarding Section 61 Matters

In accordance with Schedule 2 Clause 13(1) of the *Aboriginal Heritage Regulations 2018*, a CHMP must include contingency plans for the following:

a) the matters referred to in Section 61 of the *Aboriginal Heritage Act 2006*;

b) the resolution of any disputes between the Sponsor and relevant registered Aboriginal parties in relation to the implementation of the plan or the conduct of the activity;

c) reviewing compliance with the cultural heritage management plan and mechanisms for remedying non-compliance;

d) the management of Aboriginal cultural heritage found during the activity;

e) the notification, in accordance with the Act, of the discovery of Aboriginal cultural heritage during the carrying out of the activity.

2.1.1 Contingency 1: Matters referred to in Section 61 of the Act

The following matters must be considered in assessing whether a CHMP relating to an activity is to be approved:

a) whether the activity will be conducted in a way that avoids harm to Aboriginal cultural heritage.

b) if it does not appear to be possible to conduct the activity in a way that avoids harm to Aboriginal cultural heritage, whether the activity will be conducted in a way that minimises harm to Aboriginal cultural heritage.

c) any specific measures required for the management of Aboriginal cultural heritage likely to be affected by the activity, both during and after the activity.

d) any contingency plans required in relation to disputes, delays and other obstacles that may affect the conduct of the activity.

e) requirements relating to the custody and management of Aboriginal cultural heritage during the course of the activity.

If Aboriginal cultural heritage is discovered unexpectedly during the activity, Contingency 4 (which takes into account matters referred to in section 61 of the Act with regard to harm avoidance and minimisation, and the development of specific measures to manage Aboriginal cultural heritage) must be implemented by the Sponsor.

Contingency 2 (which sets out the contingency plans required in relation to disputes, delays and other obstacles that may affect the conduct of the activity) must be adhered to by the Sponsor.

Contingency 5 (which outlines the requirements relating to the custody and management of Aboriginal cultural heritage identified during the activity) must be implemented by the Sponsor.

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The contingency plans presented in this section are specific to the activity and the activity area described within this CHMP. If, following the approval of this CHMP, any changes to the activity or the activity area requiring statutory authorisation occur, the Sponsor must either apply to amend the approved CHMP or prepare a new CHMP that incorporates any changes.

2.1.2 Contingency 2: Dispute resolution process

Procedures for dispute resolution aim to ensure that all parties are fully aware of their rights and obligations, that full and open communication between parties occurs, and that those parties conduct themselves in good faith.

If a dispute arises in relation to the implementation of the CHMP or the conduct of the activity, the following dispute resolution procedure is required:

a) All disputes will be jointly investigated and documented by both the RAP and the Sponsor.

b) The RAP and the Sponsor must meet within one week of the initial notification of the dispute to seek agreement as to a suitable resolution.

c) The Sponsor and the RAP must arrange for authorised representatives to be present at the meeting.

d) At the meeting, the authorised representatives of both the RAP and the Sponsor must state their understanding of the issue(s) in relation to the dispute and ensure each party is aware of their position. If requested by either the RAP or the Sponsor, third party mediation may be held during the meeting.

e) If the authorised representatives of the parties reach agreement, the agreed resolution to the dispute must be recorded in writing and signed by both parties (i.e. Agreed Method Statement). If the authorised representatives of the parties do not reach agreement, the parties will participate in third party mediation of the dispute by an agreed mediator within two weeks of the first meeting to discuss the dispute. Any agreed outcome of the mediation must be recorded in writing and signed by both parties (Agreed Method Statement).

Any costs relating to the third-party mediation procedure outlined above must be met equally by the Sponsor and RAP.

Regardless of the category of dispute, the dispute resolution process does not preclude:

f) The parties seeking advice from First Peoples – State Relations to assist in resolution of the dispute; and

g) Any legal recourse open to the parties being taken; however, the parties agree that the above resolution mechanism will be implemented before such recourse is made.

2.1.3 Contingency 3: Reviewing compliance and mechanisms for remedying non-compliance with the CHMP

The Sponsor is responsible for reviewing compliance with this CHMP. If the answer to any of the questions in Table 5 below is "No", all works must cease immediately, and the Sponsor must contact the RAP immediately to discuss the non-compliance and measures for remedying non-

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compliance. The Sponsor must attend an on-site or in-office meeting (if requested by the RAP) to determine the most appropriate remedy for the non-compliance. The Sponsor must provide all information about any suspected non-compliance to the RAP, and any act of non-compliance may result in an investigation by an Authorised Officer or Aboriginal Heritage Officer as per section 81(1)(a) of the Act. Any measures for remedying non-compliance must be at the direction of the RAP. **Failure of parties to reach an agreed course of action in this manner will be classed as a dispute.**

A record of CHMP compliance must also be maintained by the Sponsor at all times and must be available for inspection by an Authorised Officer or Aboriginal Heritage Officer as authorised under section 165A and section 181(1)(b) of the Act, or any other representative of the RAP or First Peoples – State Relations (FP – SR).

The Sponsor is responsible for ensuring that the compliance checklist outlined in Table 2 is adhered to at all times during the activity.

Table 2: Compliance Checklist

Contingency	Yes/No	If No...
Prior to Activity		
Has the RAP been notified at least four weeks in advance of the commencement of the activity in accordance with Condition 4?		Immediately notify the RAP.
Have all required RAP Inspections taken place in accordance with Condition 3?		Works must not commence and the RAP must be contacted immediately.
Have all staff/contractors involved in ground disturbing works undertaken a cultural heritage induction in accordance with Condition 2?		Works must not commence and the RAP must be contacted immediately.
Are all works being conducted within the activity area in accordance with Condition 5?		All works must immediately cease and the RAP must be contacted immediately
During Activity		
Have all staff/contractors involved in ground disturbing works undertaken a cultural heritage induction in accordance with Condition 2?		All works must immediately cease and the RAP must be contacted immediately
Is a hard copy of the CHMP available on site and accessible to all site workers and contractors as per Condition 1?		All works must immediately cease and the RAP must be contacted immediately.
Have all required RAP Inspections taken place in accordance with Condition 3?		All works must immediately cease and the RAP must be contacted immediately.
If suspected human remains have been identified, have all works immediately ceased and the Coroner and Victoria Police been contacted as per the 5-step contingency plan in Contingency 4?		All works must immediately cease and the relevant authorities must be contacted immediately.
If suspected Aboriginal Cultural Heritage other than human remains has been discovered, has the correct procedure been followed as per Contingency 4?		All works must immediately cease within 10 metres (in all directions) of the suspected heritage and the Sponsor, Heritage Advisor and the RAP must be contacted immediately.
If a decision is made to retrieve a bore head, has the procedure outlined in Condition 9 been followed?		All works must immediately cease and the RAP must be contacted immediately.

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Are all works associated with the activity being conducted within the activity area delineated within this CHMP in accordance with Condition 5?		All works must cease immediately cease and the RAP must be contacted immediately.
After Activity		
Has the RAP been notified of the conclusion of the activity in accordance with Condition 4?		Immediately notify the RAP
Has the procedure been followed for custody and management of Aboriginal Cultural Heritage identified during the activity in accordance with Contingency 5?		Refer to Contingency 5 and Contingency 6.
Have the procedures for the repatriation of the Aboriginal cultural heritage from VAHR 7822-4957 been followed in accordance with Condition 8?		Immediately notify the RAP

All actions associated with the procedures specified in this contingency must be organised and paid for by the Sponsor.

2.1.4 Contingency 4: Management of Aboriginal cultural heritage found during the activity

2.1.4.1 Discovery of human remains

If any suspected human remains are found during any activity, you must contact the Victoria Police and the State Coroner's Office immediately. If there are reasonable grounds to believe that the remains are Aboriginal, the Coronial Admissions and Enquiries hotline must be contacted immediately on 1300 509 519. This advice has been developed further and is described in the following five-step contingency plan. Any such discovery at the activity area must follow these steps:

1) *Discovery:*

   a) If suspected human remains are discovered, all activity in the vicinity must stop; and,

   b) The remains must be left in place and protected from harm or damage.

2) *Notification:*

   c) If suspected human remains have been found, the State Coroner's Office and Victoria Police must be notified immediately.

   d) If there are reasonable grounds to believe that the remains are Aboriginal Ancestral Remains, the Coronial Admissions and Enquiries hotline must be contacted immediately on 1300 509 519; and

   e) All details of the location and nature of the human remains must be provided to the relevant authorities.

   f) If it is confirmed by these authorities the discovered remains are Aboriginal Ancestral Remains, the person responsible for the activity must report the existence of them to the Victorian Aboriginal Heritage Council in accordance with section 17 of the Act.

3) *Impact mitigation or salvage:*

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g) The Victorian Aboriginal Heritage Council, after taking reasonable steps to consult with any Aboriginal person or body with an interest in the Aboriginal Ancestral Remains, will determine the appropriate course of action as required by section 18(2)(b) of the Act; and

h) An appropriate impact mitigation or salvage strategy as determined by the Victorian Aboriginal Heritage Council must be implemented by the Sponsor.

4) Curation and further analysis:

i) The treatment of salvaged Aboriginal Ancestral Remains must be in accordance with the direction of the Victorian Aboriginal Heritage Council.

5) Reburial:

j) Any reburial site(s) must be fully documented by an experienced and qualified archaeologist, clearly marked and all details provided to First Peoples – State Relations; and,

k) Appropriate management measures must be implemented to ensure that the Aboriginal Ancestral Remains are not disturbed in the future.

2.1.4.2 Discovery of other Aboriginal cultural heritage

If suspected Aboriginal cultural heritage, other than human remains, is identified during the works, the following procedure must be implemented:

1) Discovery:

a) All works within 10 metres (in all directions) of the location of suspected Aboriginal cultural heritage must be immediately halted. This exclusion zone around the suspected Aboriginal Place must be protected from further disturbance and harm with an appropriate barrier (e.g., above-ground, temporary fencing) marked with "no go zone" signage. The suspected Aboriginal cultural heritage must not be removed, and all personnel undertaking the activity must be notified of the suspected discovery.

2) Notification and assessment:

b) The person in charge of the works at the time of the discovery must notify the Sponsor, the RAP, and a Heritage Advisor (HA) of the suspected Aboriginal cultural heritage within one business day of its discovery, as per section 24(3) of the Act.

c) The HA, a RAP representative, and the Sponsor must undertake an inspection of the suspected Aboriginal cultural heritage as soon as practicable, and within a maximum of three business days of the notification of the discovery. If a representative of the RAP is unable to participate in the inspection within the specified time period, the HA can undertake the inspection with the Sponsor, provided that the HA provides photographic documentation and a written report on the inspection to the RAP within one business day of the completion of the inspection.

d) The HA and RAP must determine if the suspected Aboriginal cultural heritage is Aboriginal cultural heritage. If the suspected Aboriginal cultural heritage is determined not to be

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Aboriginal cultural heritage, the protective barrier may be removed, and works may recommence within the exclusion zone.

e) If the suspected Aboriginal cultural heritage is determined to be Aboriginal cultural heritage by the HA and RAP, the HA must fully document this Aboriginal cultural heritage. If required, the exclusion zone must be modified to ensure that all the Aboriginal cultural heritage is protected from disturbance.

f) The person in charge of the works must report the discovery of the Aboriginal cultural heritage to the Secretary as per Contingency 6.

3) Management:

g) Following the inspection, the Sponsor and RAP must discuss and agree to a course of action for the management of the Aboriginal cultural heritage. The Sponsor must consider avoiding harm to the Aboriginal cultural heritage as a first priority (section 61(a) of the Act). If it is not possible to avoid harm, the Sponsor must make every attempt to minimise harm to the Aboriginal cultural heritage (section 61(b)), for example by reducing impact on the cultural heritage so that all or a part is not disturbed by the activity.

h) A written agreement documenting the measures for managing the Aboriginal cultural heritage (section 61(c)), and how to continue with works, must be made within five working days of the on-site inspection by the RAP, HA, and Sponsor. This written agreement must be prepared by the HA and circulated to the Sponsor and RAP, and it must be approved in writing by the Sponsor and RAP.

i) If harm cannot be avoided, then this written agreement may include salvage of the Aboriginal cultural heritage. Any salvage must be completed by an appropriately qualified archaeologist/HA, and in accordance with proper archaeological practice. An archaeological report detailing the methods, analysis and results of the excavation must be completed. The methods and scope of the salvage, and any research questions to be addressed by the salvage, must be endorsed by the RAP. RAP representatives must participate in any salvage, and a copy of the salvage report must be provided to the RAP and Victorian Aboriginal Heritage Registry within 12 months of the completion of the salvage program.

j) If any organic material (e.g., shell, charcoal, hearth) or deposits suitable for dating (e.g. radiometric, Optically Stimulated Luminescence) are identified during any salvage program, these must be collected and dated in accordance with proper scientific practice.

k) Victorian Aboriginal Heritage Registry forms and Record Edits for the Aboriginal cultural heritage must be completed within three months of the completion of any harm avoidance, minimisation, or management measures.

Failure of parties to reach an agreed course of action in this manner will be classed as a dispute.

The HA (with the written approval of the RAP) must advise the Sponsor when suspended construction works can proceed. In general, works may recommence when the required harm avoidance, minimisation or management measures have been completed in their entirety.

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All actions associated with the procedures specified in this section must be organised and paid for by the Sponsor.

2.1.5 Contingency 5: Removal, custody, curation, and management of Aboriginal cultural heritage during the activity

The Heritage Advisor must ensure that all Aboriginal cultural heritage (other than Aboriginal Ancestral Remains) recovered from the activity area during the activity is managed in the following way:

a) The Heritage Advisor may initially retain custody of the recovered Aboriginal cultural heritage for scientific analysis for a period of up to 12 months from the completion of the activity. In the event that the Heritage Advisor is no longer able to retain custody of the Aboriginal cultural heritage, the Heritage Advisor must return the Aboriginal cultural heritage to the RAP immediately.

b) The Heritage Advisor must fully document, package, and securely store all recovered Aboriginal cultural heritage until it is repatriated to the RAP. All Aboriginal cultural heritage must be clearly labelled with respect to its provenance.

c) The Heritage Advisor must submit all relevant documentation for this Aboriginal cultural heritage to the VAHR.

d) Within 12 months of the completion of the activity, the Heritage Advisor must contact the RAP to arrange the return or reburial of all Aboriginal cultural heritage recovered within the activity area according to the RAP's direction.

The return process must occur as follows:

e) All Aboriginal cultural heritage must be appropriately packaged in a durable container (at the direction of the RAP), sorted by the archaeological context from which it was recovered.

f) The packaged Aboriginal cultural heritage must be accompanied by a hard copy of the CHMP conditions and contingencies, VAHR record/s, and artefact catalogue/s.

g) All relevant recording and documentation, including submission of an Object Collection Form to the VAHR, must be completed by the Heritage Advisor within two weeks of the return.

h) Following the repatriation of the recovered Aboriginal cultural heritage to the RAP, the RAP may elect to rebury the recovered Aboriginal cultural heritage.

The reburial process must occur as follows:

i) The burial location must be negotiated and agreed upon in writing between the Sponsor and the RAP.

j) The burial location must be protected from future development or disturbance.

k) All Aboriginal cultural heritage must be appropriately packaged in a durable container, as directed by the RAP.

l) The packaged Aboriginal cultural heritage must be accompanied by a hard copy of the CHMP, VAHR record/s, and artefact catalogue/s.

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The reburial of the Aboriginal cultural heritage must be conducted by a RAP representative/s.

m) A Heritage Advisor must attend the reburial and record the burial location with a dGPS.

n) All relevant recording and documentation, including submission of an Object Collection Form to the VAHR, must be completed by the Heritage Advisor within two weeks of reburial.

The specific arrangements for repatriation and reburial of the Aboriginal cultural heritage must be completed as per the Wurundjeri Artefact Repatriation Policy current at the time of repatriation.

If for any reason the RAP cannot take possession of the Aboriginal cultural heritage, the custody of the Aboriginal cultural heritage must comply with the Act and be assigned in the following order of priority:

o) Any relevant registered native title holder for the land from which the Aboriginal cultural heritage has been salvaged.

p) Any relevant native title party (as defined in the Act) for the land from which the Aboriginal cultural heritage has been salvaged.

q) Any relevant Aboriginal person or persons with traditional or familial links with the land from which the Aboriginal cultural heritage has been salvaged.

r) Any relevant Aboriginal body or organisation which has historical or contemporary interests in Aboriginal heritage relating to the land from which the Aboriginal cultural heritage has been salvaged.

s) The owner of the land from which the Aboriginal cultural heritage has been salvaged.

t) The Museum of Victoria.

All actions associated with the procedures specified in this section must be organised and paid for by the Sponsor.

2.1.6 Contingency 6: Notification of discovery of Aboriginal cultural heritage

The Secretary must be notified of the discovery of any Aboriginal cultural heritage during the activity as soon as practicable and within a period not exceeding 30 days of discovery, as per section 24(2) of the Act.

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PART 2
CULTURAL HERITAGE ASSESSMENT

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3 INTRODUCTION

3.1 Background and Scope of Works

Ecology and Heritage Partners as part of Ripple JV was commissioned by the Sponsor, Yarra Valley Water Corporation, to prepare a complex Cultural Heritage Management Plan (CHMP) for the proposed non-drinking water (NDW) main pipeline at Craigieburn, Mickleham and Donnybrook, Victoria (Hume City Council and City of Whittlesea) (Map 2).

The project brief agreed upon by Ripple JV and Yarra Valley Water Corporation is as follows:

- Review the relevant heritage databases (e.g., Victorian Aboriginal Heritage Register (VAHR) at First Peoples – State Relations (FP-SR), Local Government Heritage Overlays, Heritage Victoria Inventory and Register, National Trust) and other relevant available literature;
- Provide a brief review of land use for the activity area;
- Conduct a Place assessment by a qualified Heritage Advisor to identify any Aboriginal Place[1] within the activity area;
- Identify and provide a series of maps as required for a CHMP showing any Aboriginal Place or areas likely to contain Aboriginal cultural heritage, such as archaeological Places;
- Provide information in relation to any implications of Commonwealth and State environmental legislation and Government policy associated with the proposed development;
- Discuss any opportunities and constraints associated with the activity area;
- Liaise with the key stakeholders; and
- Produce a CHMP suitable for evaluation by the appropriate evaluation party.

3.2 Reasons for Preparing the CHMP

This CHMP has been prepared in accordance with Part 4 of the Victorian *Aboriginal Heritage Act 2006* and is required by the Victorian *Aboriginal Heritage Regulations 2018* (s.7). The specific Regulations which trigger the requirement for this plan are (Map 2):

- Under r.25(1),. The following Place is located within the activity area:
    - VAHR 7822- 1574 (CRAIGIEBURN BYPASS 6).
- Under r.25(2), the activity area is located within 50 m of three registered cultural heritage places.

[1] Note: the terms used in this report, Aboriginal Place, Aboriginal cultural heritage and archaeological site, have specific meaning under the *Aboriginal Heritage Act 2006* and are used in this report to refer to an Aboriginal Place that is an archaeological site.

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- VAHR 7822– 1176 (Craigieburn Rail Res.) located approximately one metre away from activity area;
- VAHR 7822-1177 (Summerhill Rd Railway Reserve 1), located approximately 9 m from the activity area and
- VAHR 7822-1178 (Summerhill Rd Rail Res. 2), located four metres from the activity area

- Under r.26(1), the activity area is within an area of cultural heritage sensitivity as it is located within 200 m of a waterway, namely Merri Creek and Malcolm Creek;
- Under r.46(1)(a)(b)(xxvii)(B), the proposed activity is a high impact activity as it involves a linear project of the construction of a pipeline spanning more than 500 metres; and
- Under r.46(1)(a)(b)(xxvii)(D) the activity is a high impact activity as the works affect an area greater than 25 square metres.

This CHMP does not contain detailed information regarding non-Aboriginal historical heritage issues relating to the activity area.

3.3 Notice of Intent to Prepare a Cultural Heritage Management Plan

Under s.54 of the *Aboriginal Heritage Act 2006*, the Sponsor of a CHMP must give notice of their intention to prepare a CHMP.

In accordance with s.54(1)(a) of the *Aboriginal Heritage Act 2006*, the Sponsor submitted a Notice of Intent to prepare a Cultural Heritage Management Plan (NOI) to the Registered Aboriginal Party (RAP) for the activity area, Wurundjeri Woi-wurrung Cultural Heritage Aboriginal Corporation (WWCHAC), on 18 July 2023. A copy of this NOI is attached in Appendix 1. The RAP responded to this NOI on 24 July 2023 and indicated they would evaluate this CHMP. A copy of this response is attached in Appendix 1.

In accordance with s.54(1)(b) of the *Aboriginal Heritage Act 2006*, the Sponsor submitted a NOI to the Secretary of the Department of Premier and Cabinet (DPC) on 18th July 2023. A response to this NOI was submitted to the Sponsor on 18th July 2023. Copies of the NOI are attached in Appendix 1. The FP-SR Management Plan Identifier number for this CHMP is 19688.

In addition, in accordance with s.54(1)(c) of the *Aboriginal Heritage Act 2006*, for the areas not owned or managed by the Sponsor, the Sponsor notified the owners and/or occupiers of the activity area of the Sponsor's intention to prepare this CHMP.

In accordance with s.54(1)(d) of the *Aboriginal Heritage Act 2006*, the Sponsor submitted a Notice of Intent to prepare a Cultural Heritage Management Plan (NOI) to the relevant municipal council for the activity area, the Hume City Council and City of Whittlesea on 21st July 2023. Copies of these notifications are attached in Appendix 1.

3.4 Location of Activity Area

The activity area is located between an existing pipeline connection located south of Craigieburn Road East, Craigieburn, and extends north for a distance of approximately 6.7 km to Donnybrook Road,

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Donnybrook, Victoria (Map 2). There are additional sections on pipeline that will be constructed on Summerhill Road, crossing beneath the Hume Freeway to Mt Ridley Road where it will connect into existing Yarra Valley Water Reservoir Tank Site. The cadastral details of the activity area are set out in Table 3.

Table 3: Cadastral Details of the Activity area

Lot and Parcel Identifiers					
PARCEL_SPI	PARCEL_SPI	PARCEL_SPI	PARCEL_SPI	PARCEL_SPI	PARCEL_SPI
1\TP702886	2001\PP2819	A\PS743428	A\PS916165	R1\PS922136	52\PS922136
1\PS518232	16\PS412472	1\PS743428	A\PS900640	42\PS922136	Unlabelled, between 1\PS743425 (inside the AA) and1\TP834116 (outside the AA).
L\PS521532	A\PS412510	RES1\PS743427	B\PS900640	43\PS922136	
RES1\PS518226	R1\PS724902	1\PS743427	A\PS928718	44\PS922136	4\LP205880
1\TP251903	1\PS724900	1\PS922136	D\PS919144	45\PS922136	5\ LP205880
1\PS626411	R1\PS724901	RES1\PS814750	A\PS919144	46\PS922136	6\ LP205880
1\TP747325	RES1\PS724901	RES1\PS743423	R1\PS919144	47\PS922136	
6\LP118142	R1\PS738251	1\PS743424	RES1\PS922136	48\PS922136	
5\LP118142	1\PS743423	1\PS743425	40\PS922136	49\PS922136	
4\LP118142	RES1\PS743424	RES1\PS743425	39\PS922136	50\PS922136	
1\LP222180	A\PS743429	PC381945	41\PS922136	51\PS922136	

A more detailed description of the activity area is contained within Section 5.

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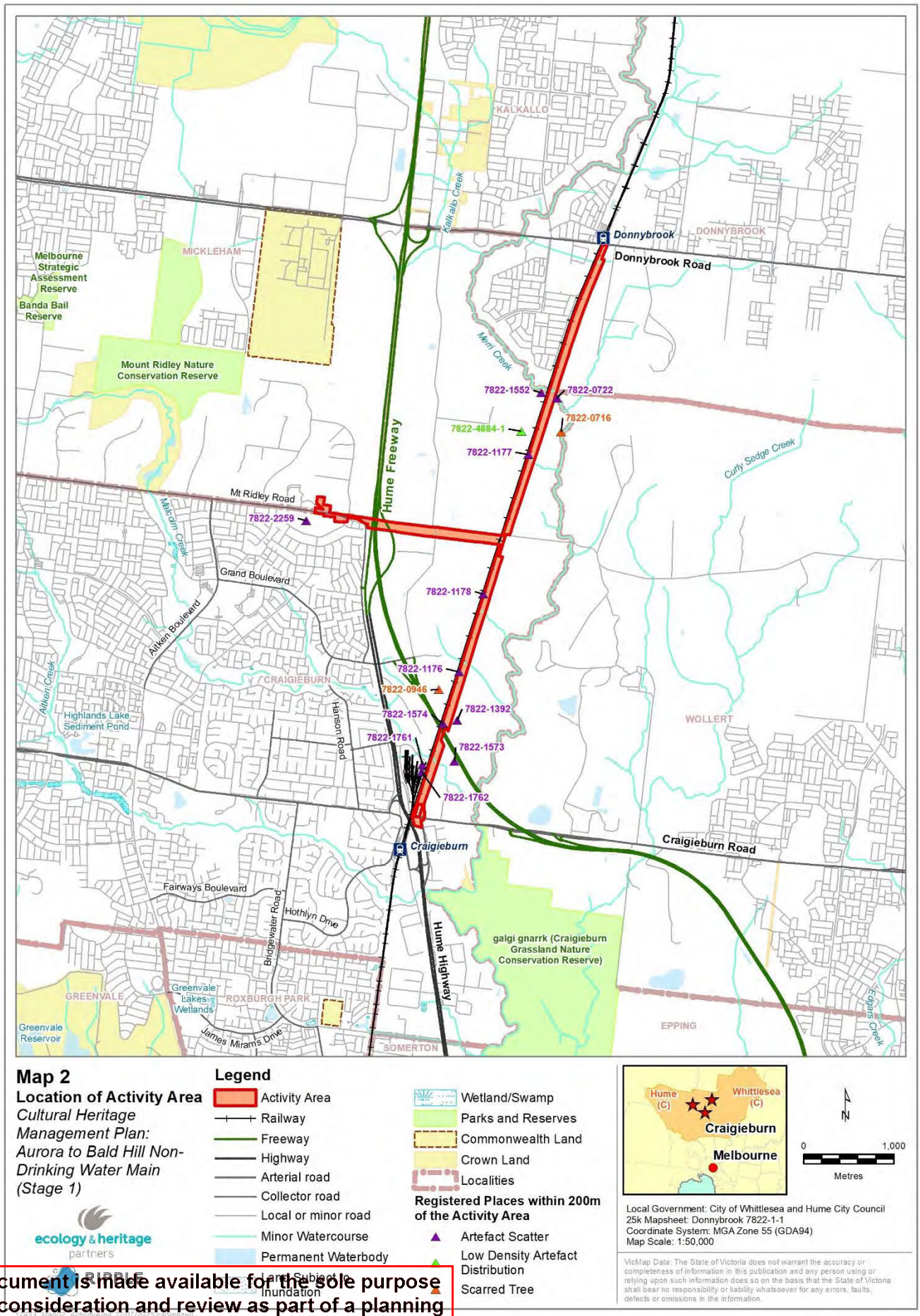

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3.5 Name of Sponsor

The Sponsor of this CHMP is Yarra Valley Water Corporation (ABN: 93 066 902 501)

3.6 Name of Heritage Advisors

The Heritage Advisor who undertook this CHMP is Meredith Filihia (Associate Archaeologist/Heritage Advisor). The authors of this CHMP are Meredith Filihia (Associate Archaeologist/Heritage Advisor), Conor Gamble, Maria Daikos, Georgia Carra (Archaeologists/Heritage Advisors) and Dylan Branda-Pawlaczyk (Archaeologist). The quality assurance review was undertaken by Oona Nicolson (Principal Heritage Advisor) and Meredith Filihia (Associate Heritage Advisor/Technical Lead). Fieldwork was undertaken Maria Daikos (Archaeologist/Heritage Advisor), Roark Muhlen-Schulte (Senior Archaeologist/Heritage Advisor), Conor Gamble and Adrianna Mitrano (Archaeologists/Heritage Advisors), Margaret Morris, Alex Ivkovic, Jayde Kindred, Aisling Firmager, Harrison Zauner, Dylan Branda-Pawlaczyk and Fotini Tetikis (Archaeologists). Mapping was provided by Monique Elsley (GIS Coordinator), Petra Sorensen, Diana Valadares and Masi Rashidi (GIS Officers).

Meredith Filihia

Meredith is an Associate Archaeologist and Heritage Advisor with 12 years' experience in consulting archaeology in Victoria. As a student Meredith participated in excavations on historical and Aboriginal archaeological sites in Victoria and at Lake Mungo. Since qualifying to work in the cultural heritage industry, Meredith has undertaken fieldwork throughout Victoria from Mildura to Lake Tyers and has also participated in several historical excavations in the Melbourne CBD. Meredith has skills in historical research and Aboriginal artefact analysis, and she is particularly interested in refitting flaked artefacts. She regularly presents papers at conferences and colloquia and is a full member of the Australian Association of Consulting Archaeologists Inc. (AACAI).

Her formal qualifications include:

- Full Member, AACAI.
- Bachelor of Arts (Hons) History, La Trobe University.
- Master of Arts (History), La Trobe University.
- Doctor of Philosophy (History), La Trobe University; and
- Graduate Diploma (Archaeology), including studies in Australian archaeology.

Adrianna Mitrano

Adrianna is a Consultant Heritage Advisor/Archaeologist at Ecology and Heritage Partners. She completed her Bachelor of Arts with Honours at The University of Western Australia in 2021. She is currently undertaking a Master of Cultural Heritage and Museum Studies at Deakin University.

Adrianna joined Ecology and Heritage Partners at the beginning of 2024. She is particularly interested in both Aboriginal and historical archaeology. Following the completion of her university degrees, she has

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gained considerable experience in both field excavations and post-excavation analysis. Her fieldwork experience has left her with a strong capability to conduct manual and mechanical excavations. This combined experience has led her to have a strong understanding of artefacts, regarding lithics and historic artefacts particular to Victoria. She has undertaken and assisted in the writing of CHMPs (desktop and complex), letters of advice, PARCHOs, Due Diligence Assessments, and more.

Her formal qualifications include:

- Bachelor of Arts (Archaeology) (Hons), The University of Western Australia, 2021, including studies in Australian archaeology
- Master of Cultural Heritage and Museum Studies, Deakin University, (Current)

Roark Muhlen-Schulte

Roark is a senior archaeologist, anthropologist and Heritage Advisor with thirty-six years of experience in consulting archaeology and anthropology throughout Australia. Roark has undertaken comprehensive fieldwork in the Northern Territory (Simpson Desert, Daguragu (Wave Hill: Victoria River), Mistake Creek, East Tanami, and Harts Range), in Western Australia (Bungle Bungles, Great Sandy Desert and Pilbara), in Queensland (Roma, Curtis Island, and the Gold Coast) and in Victoria throughout metropolitan Melbourne, the Australian Alps and in the south-west of the State.

Whilst Roark works primarily as an Archaeological consultant, he has worked as an Anthropological consultant to several Aboriginal organisations and commercial clients, to support site identification and recording of both tangible and intangible cultural heritage, particularly associated with land claim casework.

His formal qualifications include:

- Bachelor of History (Hons), Australian National University, including studies in Australian archaeology
- Member AACAI (Australian Association of Consulting Archaeologists Inc.)
- Member AAA (Australian Archaeologists Association)
- Member AAS (Australian Anthropological Society).

Conor Gamble

Conor is an Archaeologist and Heritage Advisor at Ecology and Heritage Partners. He has participated in projects undertaking fieldwork and artefact cleaning and storage. Conor is very strong in historical research, holding an Honours degree with a thesis that studied the development of a gold mining town, Talbot, which relied on its accelerated technological development and geographical features to succeed. He is skilled in historical artefact analysis. Conor looks forward to working positively with a range of clients and Aboriginal Traditional Owner Communities.

Conor is a member of the Australian Archaeological Association (AAA) and has attended five of their annual conferences in the past, displaying his keen interest in Australian archaeology. Conor has attended a range of conferences hosted by the Australian Archaeological Association, the Dragon Tails

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Inc (Chinese Archaeology) and La Trobe University, familiarising himself with papers being presented in a professional context.

His formal qualifications include:

- Bachelor of Arts with Honours (Archaeology), La Trobe University, including studies in Australian archaeology.

3.7 Name of Owners and Occupiers of the Activity area

The activity area is owned and managed by multiple authorities including Hume City Council, the City of Whittlesea, Yarra Valley Water Corporation and private landholders, including Landream and ESR. The pipe track is unoccupied, with farmland properties utilising the land on occasion.

3.8 Registered Aboriginal Parties

The RAP for the activity area is the Wurundjeri Woi-wurrung Cultural Heritage Aboriginal Corporation (WWCAHC). The RAP has elected to evaluate this CHMP.

Details of all consultation undertaken with the RAP for the purposes of preparing this CHMP are contained in Section 6.

3.9 Activity Advisory Group

The Secretary of the DPC did not appoint an Activity Advisory Group in relation to this CHMP.

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4 ACTIVITY

4.1 Activity Description

4.1.1 The Activity

The Sponsor proposes to construct a non-drinking water (NDW) transfer main connecting into existing NDW infrastructure. This upgrade will provide a second source of supply to Mt Ridley Reservoir and the Donnybrook area. Minor changes to the pipeline alignment, as shown in Map 3, may be required as the detailed design is finalised following approval of the CHMP.

The activity of the NDW transfer main will involve the following impacts:

a) Service proving of subsurface utilities via non-destructive digging (NDD) will refine the detailed design of the pipeline alignment. Minor changes in the pipeline alignment may be necessary within the extent of the activity area, based on the data collected during service proving. NDD will reach the depth of existing services, which may be located up to 3 m below the ground surface;

b) Laying of a 525 mm (DN525) NDW transfer main in an open trench.

- The open trench will measure 3.1 m in width, increasing to 5 m in areas where battering or benching is required for safety reasons;
- The depth of the open trench will range between 2 to 5 m, with increased depth expected on the approach to crossings at the Hume Freeway and two creeks.

c) Micro tunnelling (trenchless excavation) under creeks, major roads and railway crossings.

- Excavations measuring 9 m x 5 m in size and upwards of 17 m in depth will be required for the construction of temporary launch and retrieval shafts to facilitate the trenchless installations.

d) Three pipeline connections into existing assets via the open trench excavated for the laying of the NDW main. The trench for the connections will not exceed the width and depth of the open trench per new pipe installed. The connection points are located:

- approximately 250 m south of Donnybrook Road within the existing pipe track (north connection point) (Map 3a);
- at the Mt Ridley Reservoir tank site (Map 3e); and
- at the south of the existing pipe track at Craigieburn Road East (south connection point) (Map 3h).

e) Provision is made for future connections (offtake) to Stage 2 of the NDW main to the Bald Hill Reservoir site at the north connection point (Map 3a) and for a future connection (offtake) to Wollert Recycled Water Treatment Plant (Map 3b). Future offtakes do not form part of the activity for this CHMP. The offtake connection points will be capped with a blank flange. Any future extension will require the blank flange to be removed for the connection with [illegible]

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- The trench to accommodate infrastructure for future connection will be approximately 3.1 wide but may need to reach approximately 5 m if battering/benching is required for safety reasons; and
- The depth of the connection trench will be consistent with that of the pipe and may reach approximately 5 m in depth.

f) Potential additional excavation will be required for ancillary works to be installed to prevent corrosion of the pipe. The location of the excavation for the anticorrosion ancillary works is dependent on the finalisation of the detailed design. It will include, but not be limited to, two shafts measuring 2 m long x 0.3 m wide x 2 m deep for storing of anti-corrosion equipment.

g) The following ancillary site works will be required at various locations throughout the activity area but will be placed on a base of crushed rock and geofabric:

- temporary access tracks;
- material and backfill storage;
- storage for pipes and ancillary pipe equipment;
- pipe welding sheds;
- site office and staff amenities including construction staff car parking; and
- parking for construction vehicles/equipment.

h) At the northern extent of the activity area, between Donnybrook Road and the north connection point, the existing gravel access track will be built up with crushed rock (Map 3a). No ground disturbing works will occur in this section.

i) A permanent vehicle access track of up to 4 metres wide will be constructed along north-south pipeline alignment (excluding the northern section as indicated in Map 3a) to provide ongoing permanent access for the Sponsor. Localised passing bays and hardstand areas near valve assemblies will also be created. This will involve:

- Stripping the top cover to the required pavement depth (approximately 500 mm), depending on local ground conditions and council requirements); and
- Backfilling with either engineered material or concrete for a shared user path, depending on location, to ensure the pavement surface aligns as closely as possible with the existing surface levels and provide suitable drainage and safe use.

4.1.2 Potential Impacts to Aboriginal Cultural Heritage

Some parts of the activity can be conducted with little or no impacts to the ground and will be managed through the placement of geofabric on existing ground surfaces before placing crushed rock on top of it. These parts of the activity have little potential to impact Aboriginal cultural heritage that may be present on the surface of the activity area.

In other areas, the activity may impact ground at depths up to 17 metres, using trenchless installations to pass beneath existing features such as creeks, railways and major roads. At these crossings,

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excavations could reach depths of up to 17 metres due to the topography. For the most part, ground disturbance due to open trenching will be up to approximately 5 metres.

As a result, the activity has the potential to affect any surface and subsurface Aboriginal cultural heritage that may be present within the activity area.

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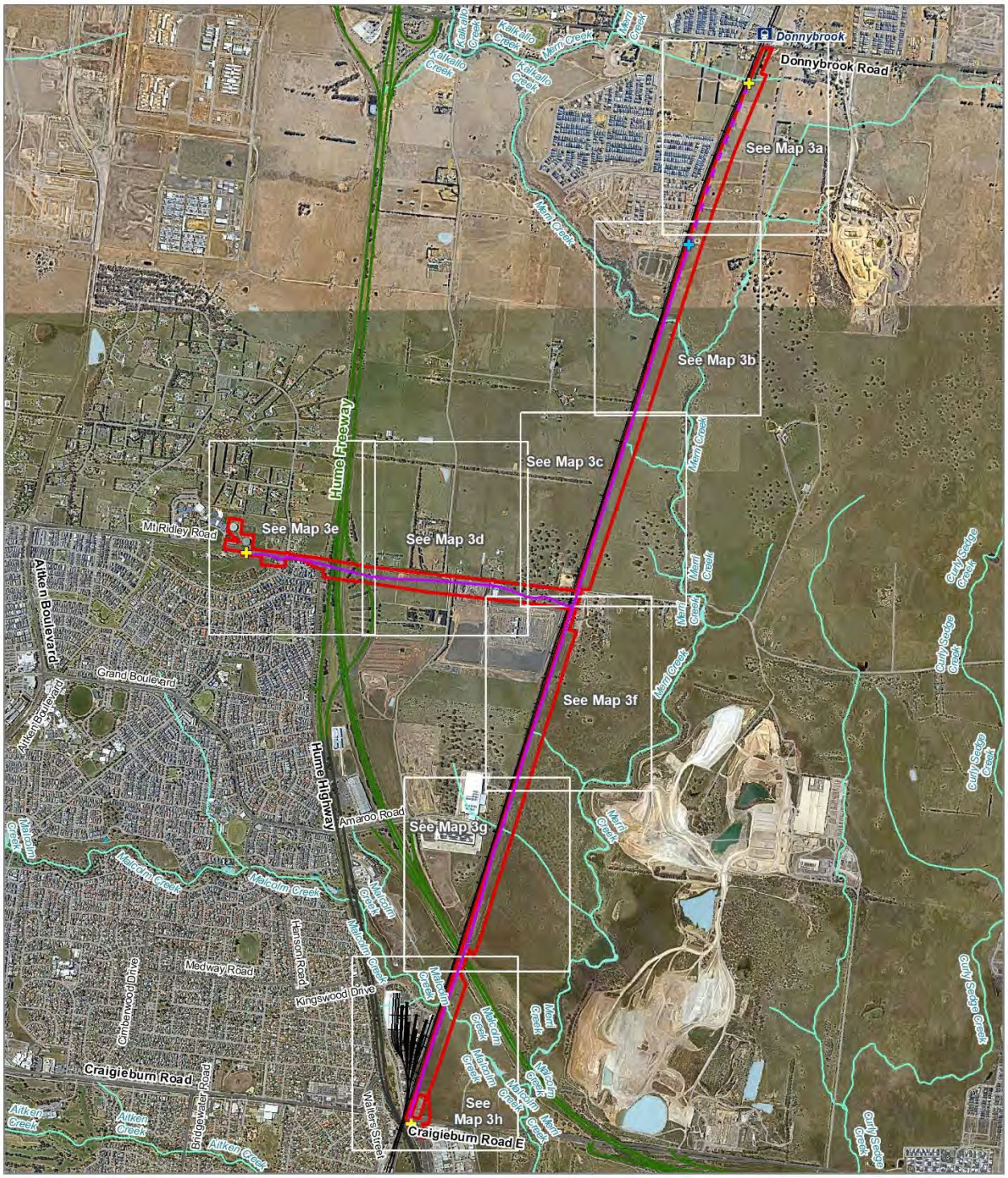

Map 3
Development Plan
Cultural Heritage Management Plan: Aurora to Bald Hill Non-Drinking Water Main (Stage 1)

ecology & heritage partners
RIPPLE

Legend

- Activity Area
- Proposed DN525 Recycled Water Main
- Proposed DN450 Recycled Water Main
- Proposed connections (tie-in) to existing YVW network
- Proposed offtake for recycled water main extensions for future works



N

0 500
Metres

Local Government: City of Whittlesea and Hume City Council
25k Mapsheet: Donnybrook 7822-1-1
Coordinate System: MGA Zone 55 (GDA94)
Map Scale: 1:30,000

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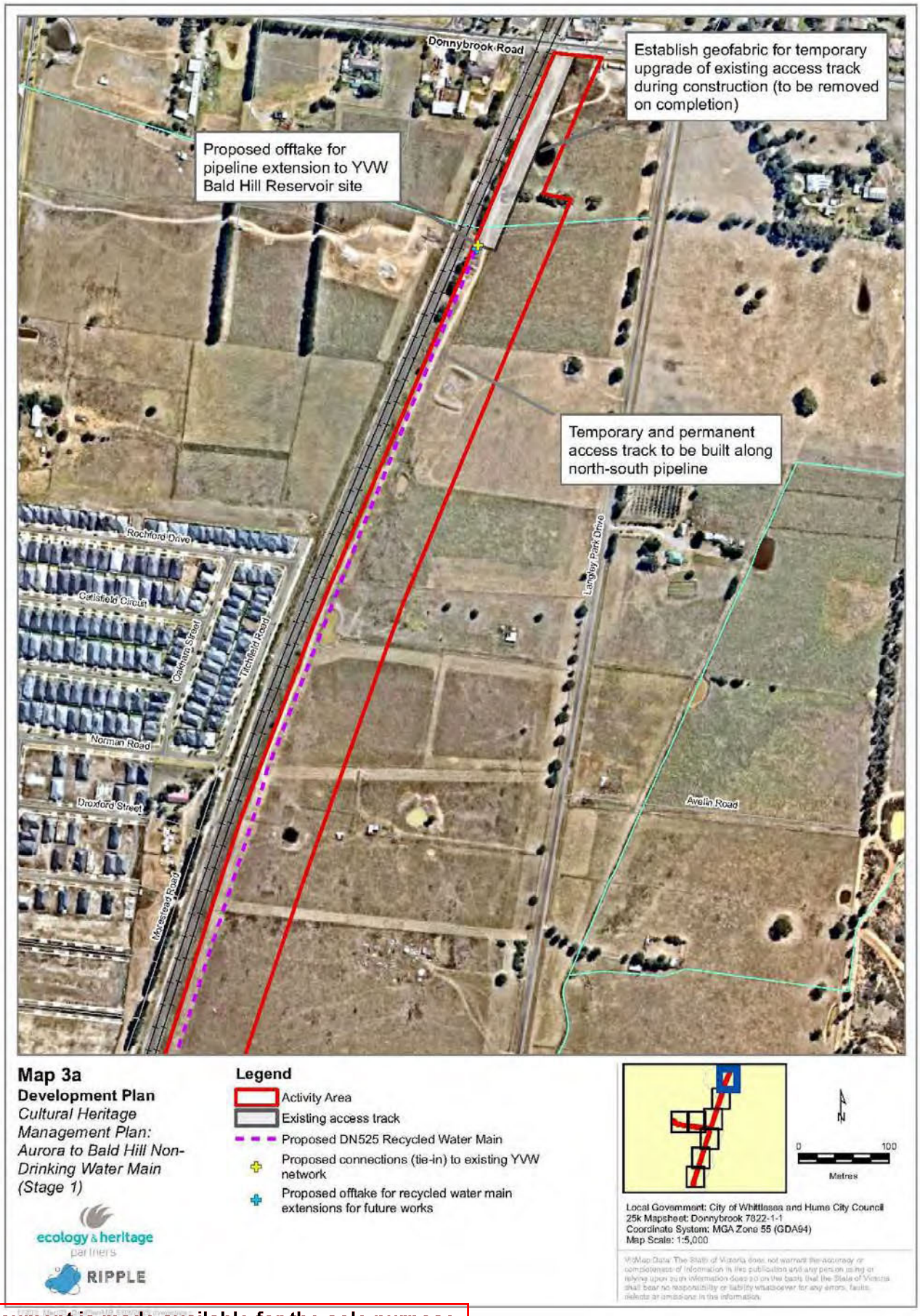

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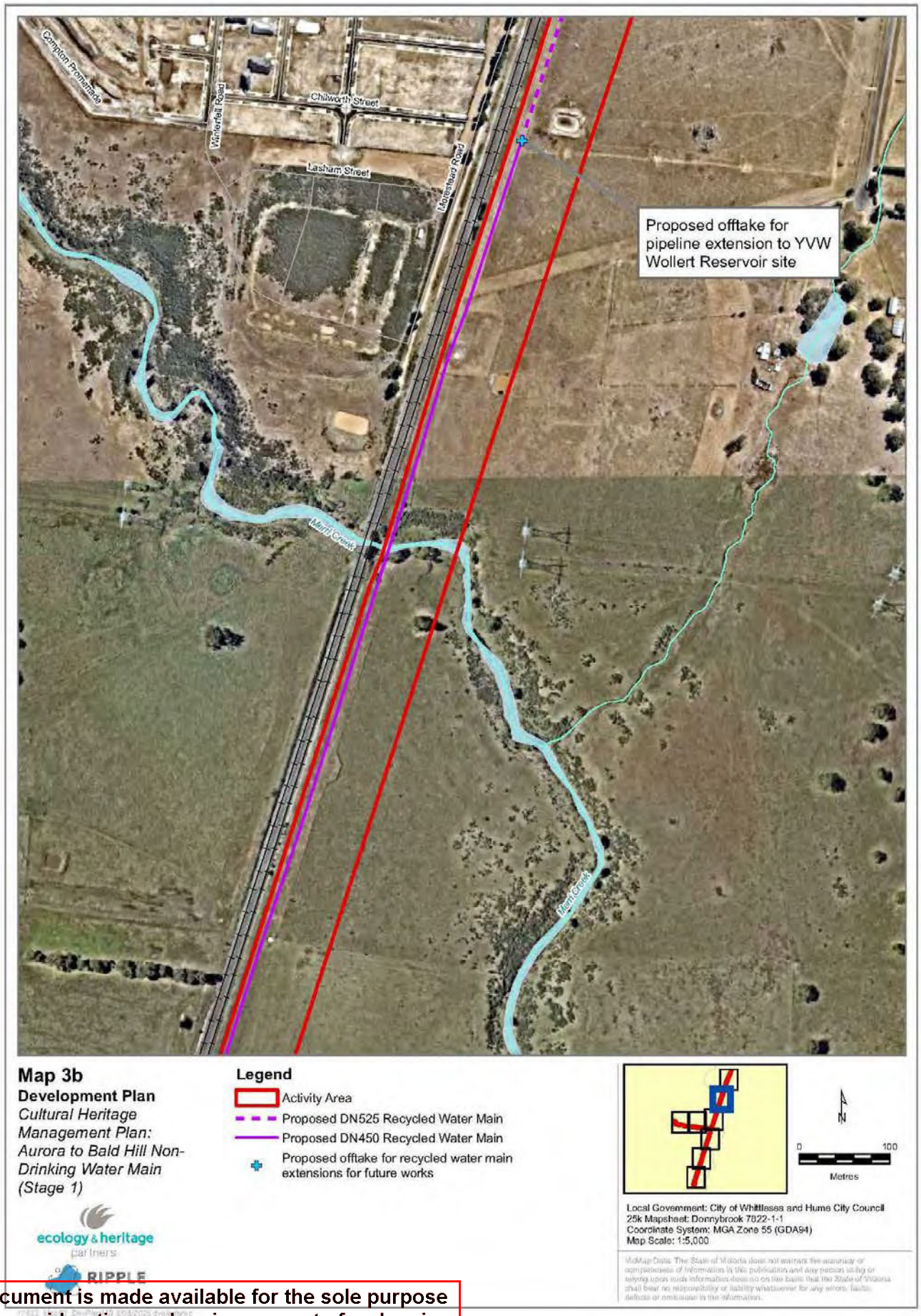

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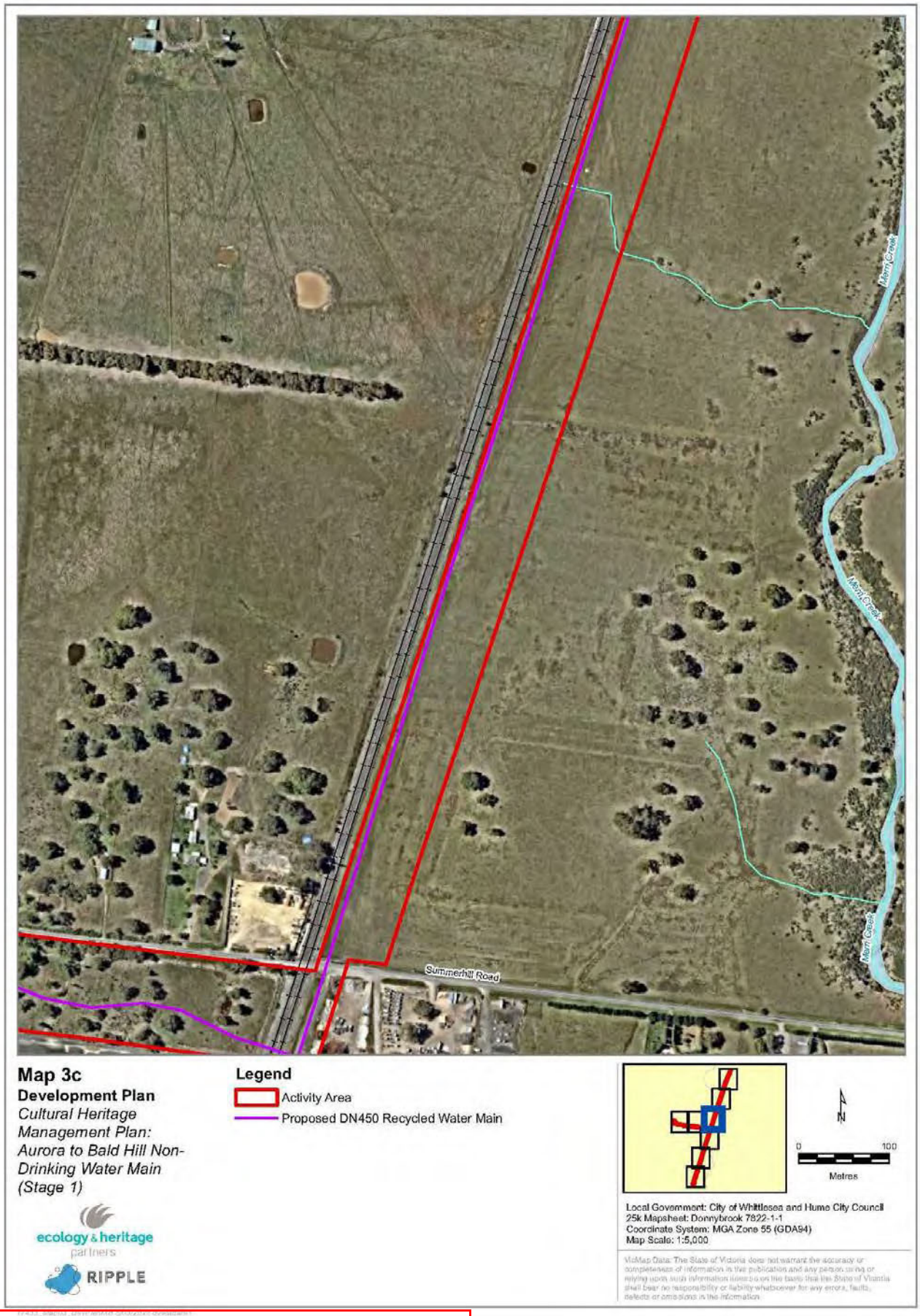

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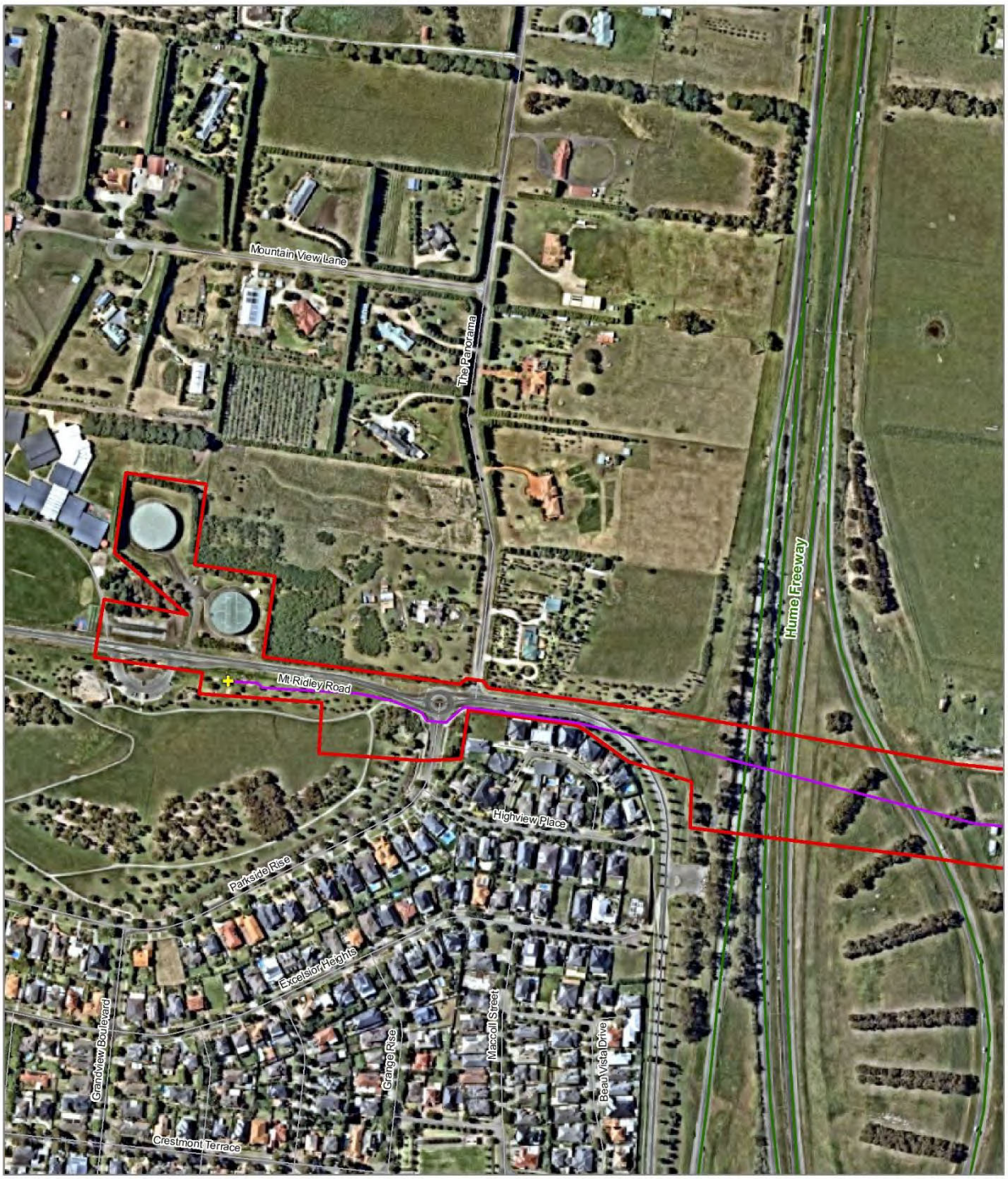
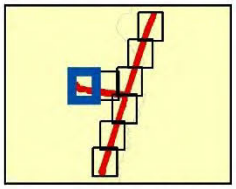


Map 3e
Development Plan
Cultural Heritage Management Plan: Aurora to Bald Hill Non-Drinking Water Main (Stage 1)

ecology & heritage partners
RIPPLE

Legend
- Activity Area
- Proposed DN450 Recycled Water Main
- Proposed connections (tie-in) to existing YVW network



N

0 100
Metres

Local Government: City of Whittlesea and Hume City Council
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Coordinate System: MGA Zone 55 (GDA94)
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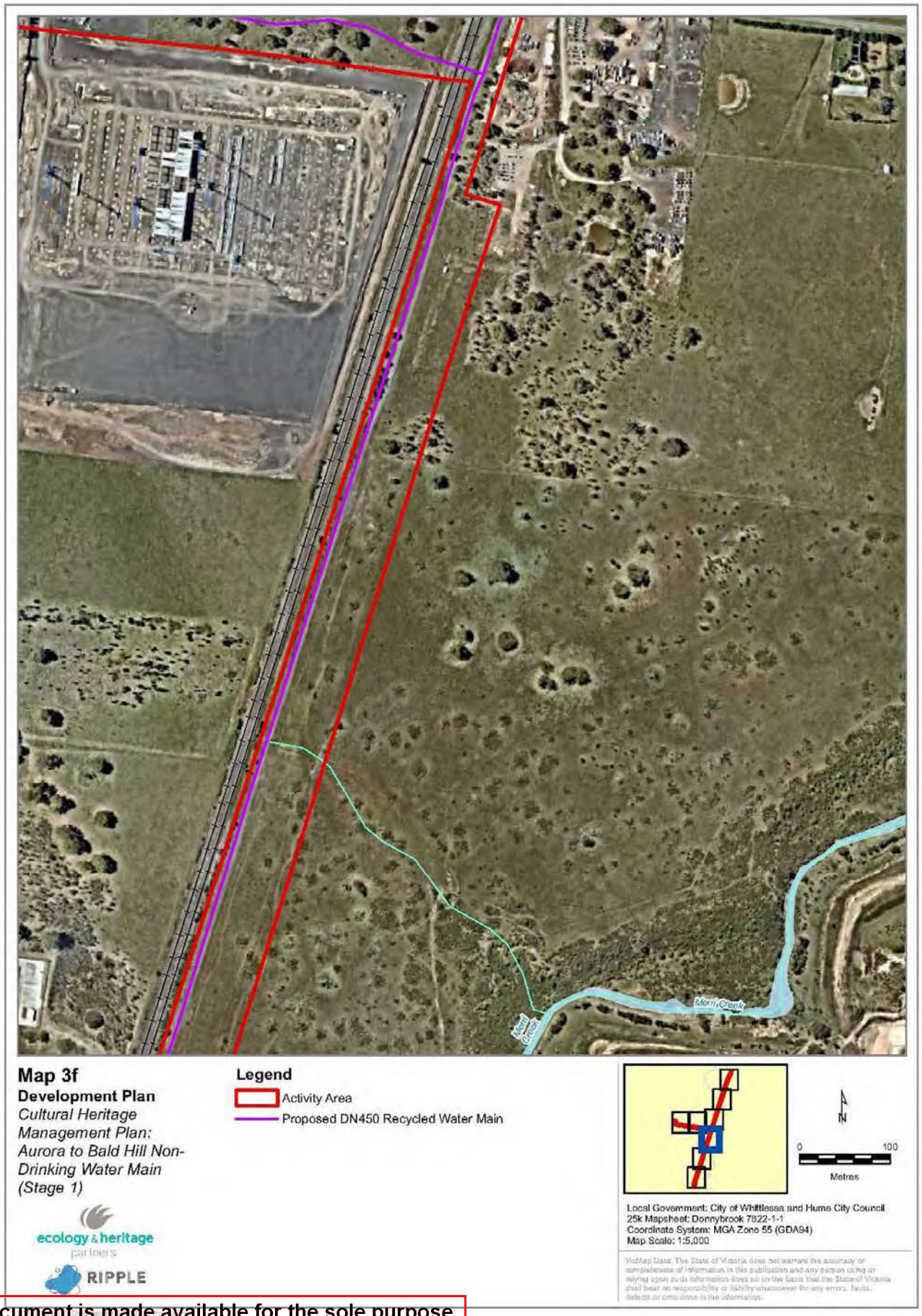

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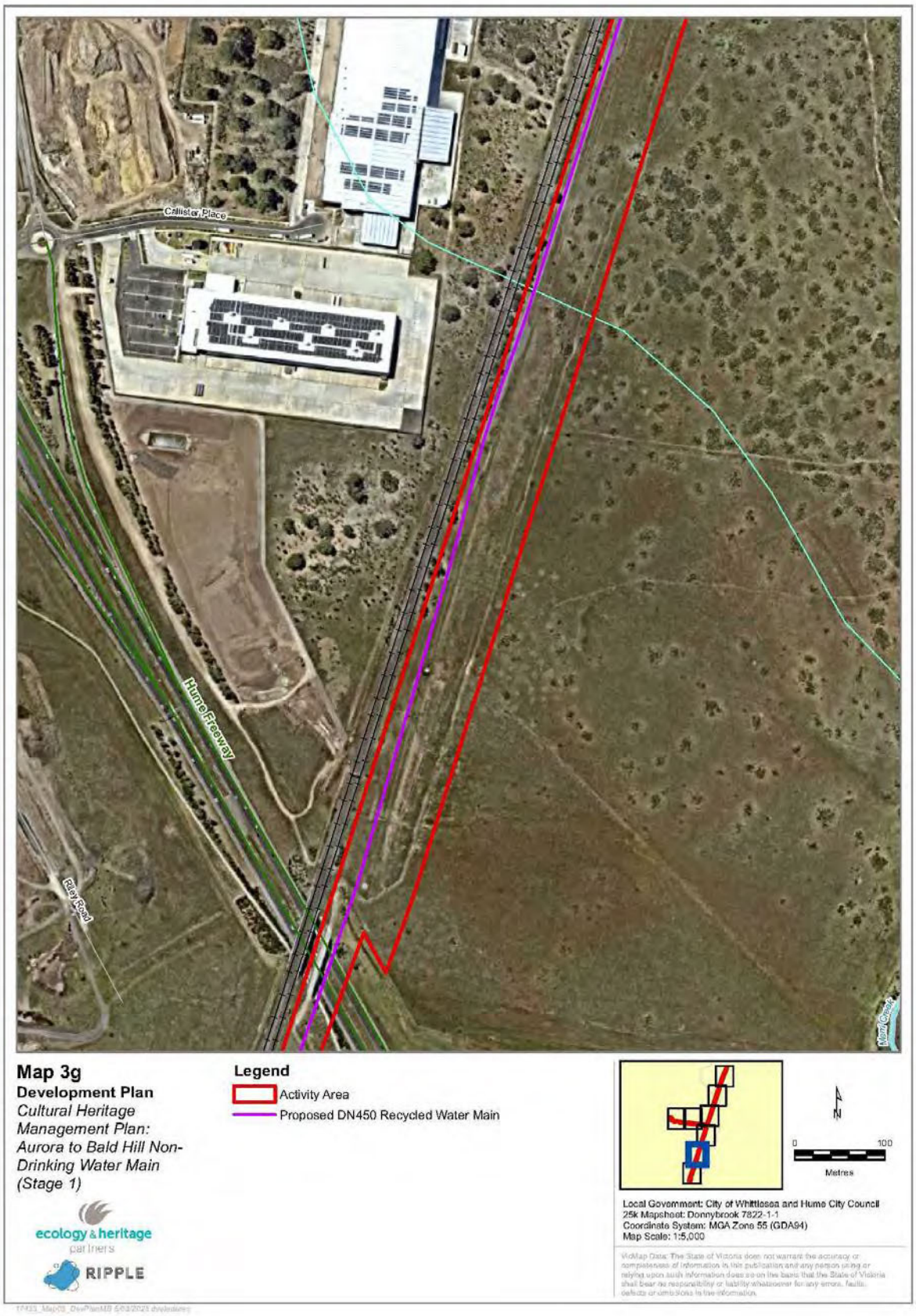

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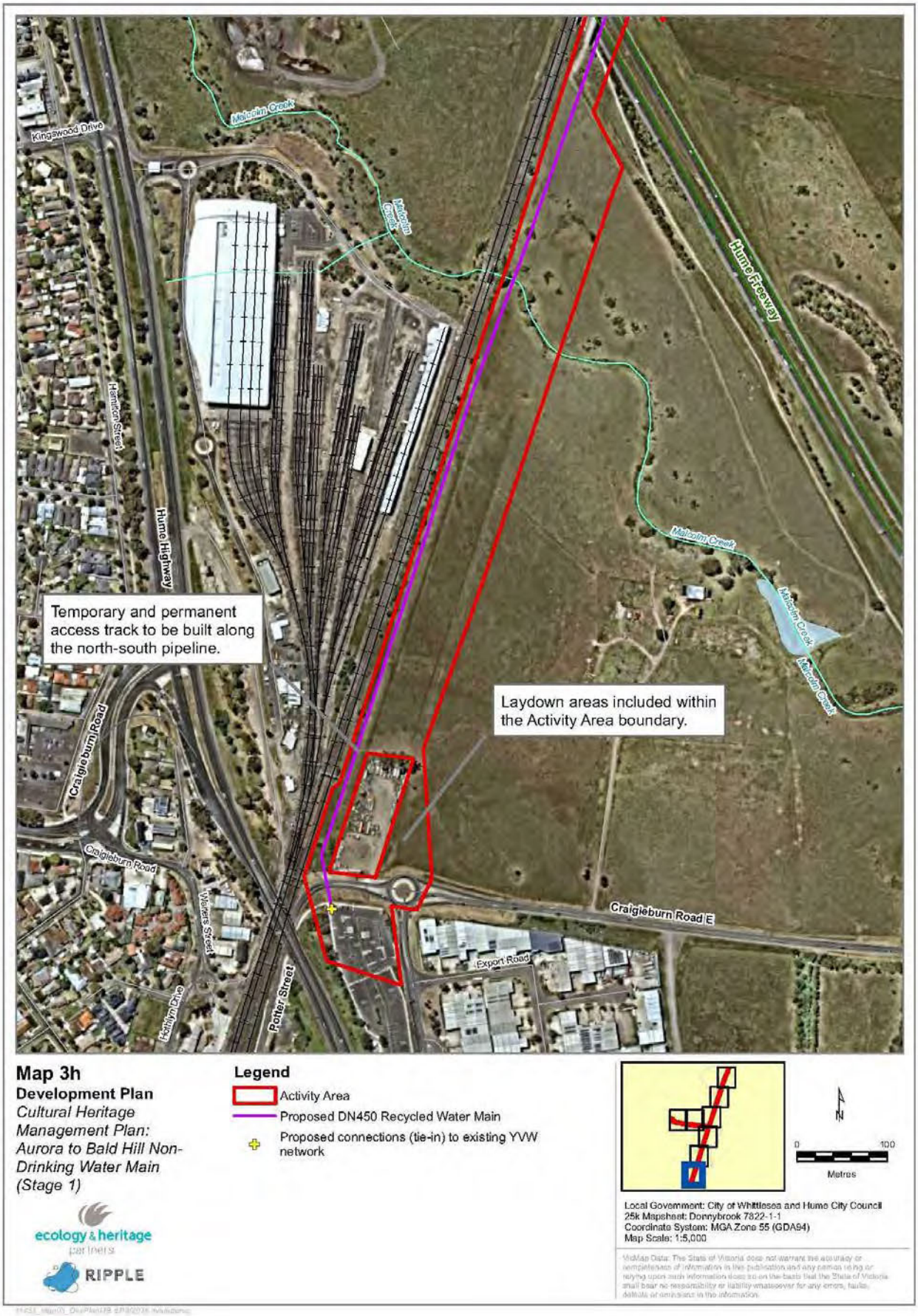

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5 EXTENT OF ACTIVITY AREA

The activity area follows the alignment of a non-drinking water (NDW) transfer pipeline between an existing transfer main located south of Craigieburn Road East, Craigieburn, and extends north for a distance of approximately 6.7 km to a distribution main south of Donnybrook Road via the Mt Ridley NDW reservoir (Map 2). A branch that extends east to west to Mt Ridley Reservoir will travel along Summerhill Road and Mt Ridley Road within the existing pipe track and in road reserves, passing under the Hume Freeway. The alignment follows the ultimate road arrangement with some variations, with the area bounded by residential buildings, future industrial estates and park reserves (Map 3).

The activity area is approximately 71.79 ha in size and located within the Hume City Council and City of Whittlesea local government areas. The north-south extents are bounded by Donnybrook Road to the north, the railway reserve of the Melbourne to Sydney railway line on the west, current agricultural land to the east and station parking along Craigieburn Road East to the south.

The activity area has been largely cleared of native vegetation, with non-native grasses covering the majority of the ground surface. Existing Yarra Valley Water infrastructure is present within the activity area, and the new NDW transfer pipeline will connect into existing transfer main, distribution main and reservoirs. There is a train line running parallel to the western boundary of the activity area, as well as evidence of farming and landscaping on the eastern boundaries of the pipe track, where there are fences and paddocks.

The activity area passes across two waterways, Malcolm Creek and Merri Creek.

The activity areas additionally deviate along Summerhill Road to connect to the storage reservoirs present on the slopes of Mt Ridley. This area is residentially developed with established roads and nature strips outside houses present within the activity area and to the south of the activity area along Mt Ridley road.

The activity area occurs within the Victorian Volcanic Plain (VVP) Bioregion. The expected landforms in the activity area are undulating plains, creek lines, and the slope of Mount Ridley.

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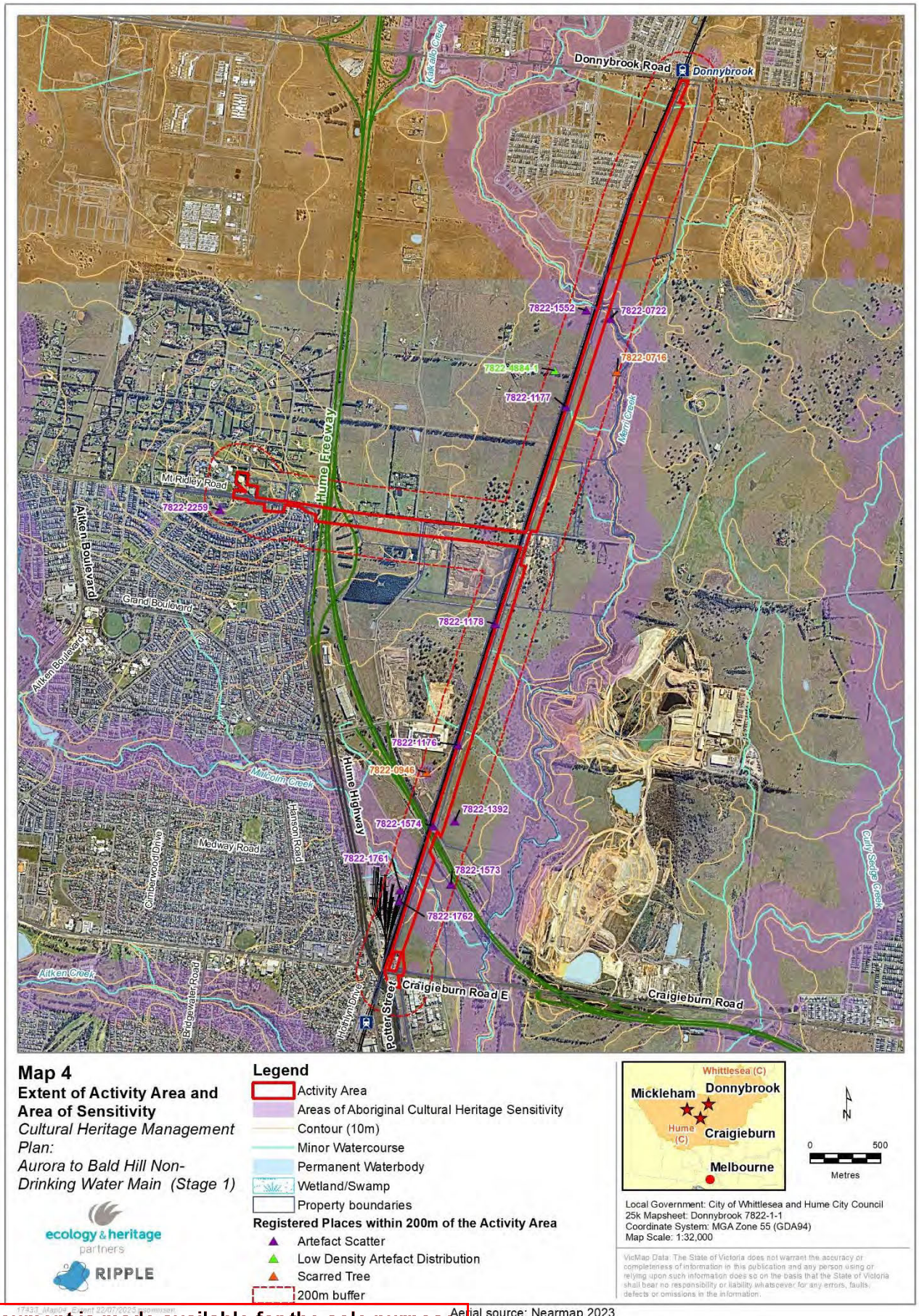

Map 4
Extent of Activity Area and Area of Sensitivity
Cultural Heritage Management Plan:
Aurora to Bald Hill Non-Drinking Water Main (Stage 1)

ecology & heritage partners
RIPPLE

Legend
- Activity Area
- Areas of Aboriginal Cultural Heritage Sensitivity
- Contour (10m)
- Minor Watercourse
- Permanent Waterbody
- Wetland/Swamp
- Property boundaries

Registered Places within 200m of the Activity Area
- Artefact Scatter
- Low Density Artefact Distribution
- Scarred Tree
- 200m buffer

N

0 500
Metres

Local Government: City of Whittlesea and Hume City Council
25k Mapsheet: Donnybrook 7822-1-1
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Map Scale: 1:32,000

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Aerial source: Nearmap 2023

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6 DOCUMENTATION OF CONSULTATION

6.1 Consultation and Participation in Relation to the Assessment

The following representatives of Wurundjeri Woi-wurrung Cultural Heritage Aboriginal Corporation (WWCHAC) participated in consultation in relation to the assessment:

- Ron Jones (Cultural Heritage Unit Elder);
- Bobby Mullins (Cultural Heritage Unit Elder);
- Allan Wandin (Cultural Heritage Unit Elder);
- Aunty Di Kerr (Cultural Heritage Unit Elder);
- Natalie Langowski (Heritage Advisor);
- Ariana Spencer-Gardiner (RAP Heritage Advisor);
- Zara Lasky-Davidson (RAP Heritage Advisor);
- Anna Alcorn (RAP Heritage Advisor); and
- Kylie Blackley (RAP Officer).

The details of all consultation undertaken in relation to the assessment are presented in Table 4.

6.2 Consultation in the Conduct of the Assessment

Table 4 lists the representatives of WWCHAC who participated in the consultation in relation to the assessment.

Table 4: Consultation in Relation to the Assessment

Date	Participants			Details and Outcomes of Consultation
	HA	WWCHAC	Sponsor	
18.07.2023 and 21.07.2023	Meredith Filihia Conor Gamble	RAP Officer (name not included in email response, shown as Temp)	Yarra Valley Water Corporation	Notice of Intent (NOI) A NOI was submitted to the FP-SR on 18.07.2023. CHMP Identifier 19688 was assigned for the project. The NOI was submitted to the RAP on 18.07.2023. The RAP responded on 24.07.2023 and indicated to advise that they would evaluate the CHMP. The NOI was sent to Hume City Council and City of Whittlesea on 21.07.2023.

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Date	Participants			Details and Outcomes of Consultation
	HA	WWCHAC	Sponsor	
17.8.2023	Meredith Filihia (HA), Conor Gamble (HA)	*Cultural Heritage Unit Elders*: Ron Jones Allan Wandin Bobby Mullins *RAP Heritage Advisor*: Natalie Langowski (HA)	Ugyen Choden (YVW) Ross Bartel (Ripple) Baharak Khouzani (YVW)	**Meeting** Project inception meeting held to introduce the project to the RAP, present the findings of the desktop assessment and to establish methodology for standard assessment. The Sponsor's HA noted that the activity is contained within the activity area for CHMP 12847 (Goldfarb and Hill 2014) It was agreed that the results of previous reports could be used for the current CHMP but that a comparison of the activity areas would be required and that standard assessment would be undertaken of areas not previously surveyed.
30.01.2024	Meredith Filihia (HA)	Ron Jones (CHU Elder) Allan Wandin (CHU Elder) Bobby Mullins (CHU Elder) Ariana Spencer-Gardiner (HA) Zara Lasky-Davidson (HA)	Baharak Khouzani (YVW PM) Carmen Loo (Ripple PM) Ross Bartel (Ripple PM)	**Meeting** Standard Results Meeting held to present the findings to the RAP and to establish subsurface testing methodology. The HA reported areas of disturbance and low GSV in areas that were surveyed, which included Summerhill Road and Mt Ridley Road. Agricultural land east and west of Langley Park Drive and north of Donnybrook Road was also surveyed; however, these areas are no longer included in the activity area The following methodology for the complex assessment was agreed as follows: - Complex assessment proposed to incorporate previous data and not to duplicate testing. - Testing in Northern Most eastern arm. - TPs on the north of Merri Creek and each side of unnamed tributaries. - Auger Probe between Mt Ridley Road and Hume Freeway, and if undisturbed place a 1 x 1 metre TP in that spot. - 5 x 1 metre MTP's in locations of launch and retrieval pits. - 5 x 1 metre MTP's everywhere open trenching is present along the eastern arm.
20.03.2024 - 28.03.2024	Meredith Filihia (HA)	Ariana Spencer-Gardiner (HA)		**Email** The Sponsor's HA sent an email to the RAP advising that due to a change in the shape of the activity area, there would need to be some alteration to the agreed complex assessment methodology. Endorsement of the revised complex assessment was received.

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Date	Participants			Details and Outcomes of Consultation
	HA	WWCHAC	Sponsor	
08.10.2024 - 14.10.2024	Meredith Filihia (HA)	Arianna Spencer-Gardiner (HA) Kylie Blackley (RAP Officer)	Yarra Valley Water Corporation	**Email** The Sponsor's HA sent an email to the RAP with spatial files for an updated activity area and revised complex assessment methodology. Endorsement of the revised complex assessment was received.
06.12.2024-09.12.2024	Meredith Filihia (HA)	Ariana Spencer-Gardiner (HA)		**Email** During the complex assessment, the Sponsor's HA sent an email to the RAP advising of the obstacles that had been encountered during the complex assessment including the presence of asbestos, areas in private property that had been stripped of topsoil during construction of the landowner's development, and persistent waterlogging. Subsurface testing was further prevented in those areas due to the presence of subsurface utilities preventing relocation of the required MTPs. The RAP Sponsor took these concerns to the Elders who agreed that complex assessment could cease at those locations.

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Date	Participants			Details and Outcomes of Consultation
	HA	WWCHAC	Sponsor	
22.10.2024-06.11.2024	Meredith Filihia (HA) Carmen Loo (Ripple PM)	Zara Lasky-Davison (HA)	Ibrahim Timraz	**Email** An email was sent to the RAP on behalf of the Sponsor indicating the Sponsor's intent to conduct ground disturbing soil assessments, including geotechnical testing on the south bank of Malcolm Creek and soil contamination testing through hand augering at a number of locations on the alignment of the pipeline, including in areas where asbestos is known to be present. The Sponsor also indicated that service proving of existing subsurface utilities using NDD was required to enable detailed design of the pipeline. The RAP indicated that the geotechnical testing and soil contamination boreholes could proceed subject to RAP monitoring; however, the use of NDD for service proving was not endorsed. The RAP stated their position that NDD was not encouraged or endorsed by the RAP because of the potential to harm Aboriginal cultural heritage without an approved CHMP. The Sponsor then notified the RAP that detailed design could be commenced and service proving could be undertaken at a later stage (it would be added to the activity description and undertaken following CHMP approval). The RAP reiterated the request that other ground-disturbing testing be monitored, and that monitoring of soil contamination boreholes from a distance of 25 m was permitted in areas of known asbestos contamination and that the RAP's OH&S policies would need to be enacted if further asbestos was discovered.
22.11.2024	Meredith Filihia (HA)	Zara Lasky-Davison (HA)		**Phone call and email** The Wurundjeri field officers raised concerns throughout the monitoring including waist-high grass and asbestos. The email confirmed that the Elders endorsed cessation of monitoring of the soil contamination boreholes and asked that as the geotechnical testing was being undertaken as part of the complex assessment that an archaeologist/HA be present and that the excavated soil be inspected for cultural heritage.

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Date	Participants			Details and Outcomes of Consultation
	HA	WWCHAC	Sponsor	
9.12.2024	Meredith Filihia (HA)	Ariana Spencer-Gardiner (HA)		**Email** The notification for the completion of the complex assessment was accepted by the Elders. It was noted that there were obstacles in the field and that some areas were unable to reach sterile clay and some MTPs couldn't be commenced.
20.01.2025	Meredith Filihia Conor Gamble	*Cultural Heritage Unit Elders* Aunty Di Kerr Allan Wandin Bobby Mullins *Heritage Advisor* Zara Lasky-Davidson Maria Daikos	*Sponsor* Meg O'Brien Jen Sweatman *Ripple* Carmen Loo	**Meeting** Complex assessment results meeting held to present the findings to the RAP and establish conditions for CHMP finalisation. Obstacles to the complex assessment were discussed, including the presence of asbestos, waterlogging and areas which were inaccessible due to previous ground disturbance in some areas of private property. No surface artefacts were recorded during the complex assessment. Silcrete, quartz and a tachylite artefact were found near creeks and in an area of remnant native vegetation, to be registered as a new LDAD. Updates to the activity area were discussed which extended some parts of the activity area and removed others. The change resulted in the removal of two previously agreed and excavated TPs and 6 previously agreed MTPs from the complex assessment testing; however, it was later found that only 5 MTPs were removed from the activity area as a result of the update). The Elders acknowledged the activity area change.
22.04.2025 - 23.04.2025	Meredith Filihia	Zara Lasky-Davison		**Email** The Sponsor's HA emailed the RAP with a formal request for oral history or traditional knowledge for inclusion in the CHMP. The RAP HA confirmed that the Elders had no oral history that they wished to share for inclusion in the CHMP.

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Date	Participants			Details and Outcomes of Consultation
	HA	WWCHAC	Sponsor	
15.07.2025-16.07.2025	Ian Ostericher	Anna Alcorn	Jen Sweatman	**Email** Email request for clarification from the RAP evaluator. Sent justification that meeting notes say testing on the north side of Merri Creek and both sides of "unnamed waterways" not "all waterways". Additionally Complex Assessments Results Meeting confirmed no additional testing required. TPs were specifically requested by the Elders on the north side of the Merri Creek crossing as being the location of a launch and retrieval shaft which had not been previously tested under other assessments and on both sides of the unnamed waterway; however, testing would not be conducted in areas previously subjected to subsurface testing under CHMP #12847.
22.07.2025 - 23.07.2025	Meredith Filihia	Kylie Blackley (RAP Officer) Anna Alcorn (HA)		**Email** The Sponsor's HA emailed updated spatial files for the activity area to the RAP. Previous mapping showed that the activity area partially overlapped with the rail corridor along the alignment. This has been corrected to show that the works will not occur in the rail corridor other than where the proposed pipeline is required to pass beneath the track at Summerhill Road. Consequently, VAHR 7822-1177 is no longer within the activity area.

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Date	Participants			Details and Outcomes of Consultation
	HA	WWCHAC	Sponsor	
18.08.2025	Meredith Filihia Ian Ostericher	Anna Alcorn	*Sponsor* Jen Sweatman Meg O'Brien *Ripple* Carmen Loo	**Meeting** An online meeting was held between the Sponsor, their HA and the RAP HA to clarify some comments provided by the RAP HA in the evaluation of the CHMP. The discussion particularly aimed to clarify: the description of the activity in relation to offtakes on the alignment of the pipeline, the nature of any ground disturbance that may be required for the construction of the access track in the northern section of the activity area, the number and location of any inspections required in the northern section of the activity area and whether the Elders' concerns about TP06 not appearing to reach a sterile clay base could be addressed by either monitoring or an inspection. The RAP HA indicated that if there were no obstacles to excavating a new TP at that location then RAP Cultural Heritage Officers could be available. The Sponsor indicated that there is time pressure on the delivery of the asset; however, the option of returning to the field would also be investigated. The RAP HA said that this would all be discussed with the Elders and a response would be provided at the earliest opportunity.
28.08.2025	Meredith Filihia Ian Ostericher	Anna Alcorn	Jen Sweatman	**Email** An email was sent to the RAP from the Sponsor's HA confirming that an additional day of complex assessment was being undertaken and that a photograph of the completed excavation would be forwarded for the information of the Elders and confirmation that the TP had been excavated to their satisfaction. The photograph was sent with an explanation that a hole in the clay base of the pit was a soil contamination borehole which had been previously excavated under RAP monitoring. The RAP HA advised that the information would be presented to the Elders.
01.09.2025	Meredith Filihia Ian Ostericher	Anna Alcorn	Jen Sweatman	**Email** The RAP HA confirmed that the Elders were satisfied that the excavation had reached the sterile clay base.
02.09.2025	Meredith Filihia	Anna Alcorn (HA) Kylie Blackley (RAP Officer)	Jen Sweatman	**Email** Updated spatial files of the revised activity area were sent to the VAHR and the RAP.

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Date	Participants			Details and Outcomes of Consultation
	HA	WWCHAC	Sponsor	
02.09.2025 – 04.09.2025	Meredith Filihia	Anna Alcorn (HA)	Jen Sweatman	**Email** Following the meeting with the RAP HA, email correspondence was undertaken between the RAP and the Sponsor and Heritage Advisor providing clearer description of the nature of the activity at the outlet valves.
10.09.2025 – 12.09.2025	Meredith Filihia	Anna Alcorn (HA)	Jen Sweatman	**Email** A copy of the proposed activity description was forwarded to the RAP HA for review. An annotated version was forwarded to the Sponsor in response. A final version was sent to the RAP HA for comment prior to the resubmission of the CHMP and wording was approved.

6.3 Participation in Field Work Conducted for the Assessment

Table 5 sets out the representatives of the RAP who participated in the field work undertaken for the assessment, including the survey conducted on 13 September 2023 and the subsurface testing conducted over 21 days between 20-22 February and 05 April 2024 and 19 November to 04 December 2024. One additional day of complex assessment was undertaken on 28 August 2025.

Table 5: Participation in Fieldwork Conducted for Assessment

Date	Participants			Details and Outcomes of Consultation
	HA	WWCHAC	Sponsor	
13.09.2023	Maria Daikos (HA) Jayde Kindred	Naomi Zukanovic Jonny Zukanovic	Abhi Rao (Ripple) Ugyen Choden (YVW) Baharak Khouzani (YVW)	**Survey** The standard assessment fieldwork was conducted on 13.09.2024. The survey identified three landforms: Plains, Hill/slope and Creek; The areas of disturbance were noted in the form of storage tanks, artificial mounds, existing subsurface utilities, roads and road reserves and construction. The survey focused on the east and west branches of the alignment, areas that were not previously surveyed. GSV was generally 0% with the north containing a paddock and Summerhill Road containing intact remnant vegetation. No culturally scarred trees, caves, rock shelters or cave entrances were identified.
20.02.2024	Roark Muhlen-Schulte (HA), Conor Gamble (HA). Meg Morris	Jason Anthony, Emily Fien.		**Subsurface Testing – Complex Assessment**

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Date	Participants			Details and Outcomes of Consultation
	HA	WWCHAC	Sponsor	
21.02.2024	Roark Muhlen Schulte (HA), Conor Gamble (HA).	Wade Garvey, Brandon Kerrigan.		Subsurface Testing – Complex Assessment
22.02.2024	Roark Muhlen Schulte (HA), Conor Gamble (HA).	Jonny Zukanovic, Justin Warie.		Subsurface Testing – Complex Assessment
27.02.2024	Conor Gamble (HA) Meg Morris	Wesley Drew Trevor Barker		Subsurface Testing – Complex Assessment
28.02.2024	Conor Gamble (HA) Meg Morris	Julian Woolmore Lovedeep Singh		Subsurface Testing – Complex Assessment
29.02.2024	Conor Gamble (HA) Alex Ivkovic	Travis Smith Brooklyn Zukanovic		Subsurface Testing – Complex Assessment
1.03.2024	Conor Gamble (HA) Meg Morris	Trevor Barker Jason Brailey		Subsurface Testing – Complex Assessment
05.03.2024	Conor Gamble (HA) Meg Morris	Clare Kennedy		Subsurface Testing – Complex Assessment
06.03.2024	Conor Gamble (HA) Meg Morris	Shane Nicholson		Subsurface Testing – Complex Assessment
26.03.2024	Conor Gamble (HA) Jayde Kindred	Wesley Drew Wade Garvey		Subsurface Testing – Complex Assessment
27.03.2024	Conor Gamble (HA) Aishling Firmager	Thorne Smith Satnam Singh		Subsurface Testing – Complex Assessment
03.04.2024	Conor Gamble (HA) Jayde Kindred	Tyison Galway Jonny Zukanovic		Subsurface Testing – Complex Assessment
04.04.2024	Meredith Filihia (HA) Conor Gamble (HA) Jayde Kindred	Aidan Finn Tony Finn		Subsurface Testing – Complex Assessment
19.11.2024	Conor Gamble (HA) Harrison Zauner	Satnam Singh		Subsurface Testing – Complex Assessment

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	HA	WWCHAC	Sponsor	
20.11.2024	Conor Gamble (HA) Harrison Zauner	Madison Zukanovic Jesse Zukanovic		Subsurface Testing – Complex Assessment
21.11.2024	Conor Gamble (HA) Harrison Zauner	Joe Charles		Subsurface Testing – Complex Assessment
22.11.2024	Conor Gamble (HA) Dylan Branda-Pawlacyzk	Jarah Benbow-Wandin Chrysogionus Perumal		Subsurface Testing – Complex Assessment
26.11.2024	Conor Gamble (HA) Fotini Tetikis	Lara Wandin-Collins Wade Garvey		Subsurface Testing – Complex Assessment
27.11.2024	Conor Gamble (HA) Fotini Tetikis	Satnam Singh		Subsurface Testing – Complex Assessment
28.11.2024	Conor Gamble (HA) Dylan Branda-Pawlaczyk	Wesley Drew Brandon Kerrigan		Subsurface Testing – Complex Assessment
29.11.2024	Conor Gamble (HA) Dylan Branda-Pawlaczyk	Satnam Singh Jarah Benbow-Wandin		Subsurface Testing – Complex Assessment
03.12.2024	Adrianna Mitrano (HA) Dylan Branda-Pawlaczyk	Joe Charles Lovedeep Singh		Subsurface Testing – Complex Assessment
04.12.2024	Adrianna Mitrano (HA) Dylan Branda-Pawlaczyk	Trevor Barker Emily Fien		Subsurface Testing – Complex Assessment
28.08.2025	Ian Ostericher Adrianna Mitrano	Brooklyn Zukanovic Natalie Finn	Jen Sweatman	Subsurface Testing – Complex Assessment

6.4 Consultation in Relation to the Conditions

The following representatives of WWCHAC participated in consultation in relation to the Conditions (Table 6):

- Aunty Di Kerr (Cultural Heritage Unit Elder);
- Allan Wandin (Cultural Heritage Unit Elder);
- Bobby Mullins (Cultural Heritage Unit Elder);

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- Zara Lasky-Davison (Heritage Advisor);
- Maria Daikos (Heritage Advisor); and
- Anna Alcorn (Heritage Advisor).

Table 6: Consultation in Relation to the Conditions

Date	Participants			Details and Outcomes of Consultation
	HA	WWCHAC	Sponsor	
20.01.2025	Meredith Filihia Conor Gamble	*Cultural Heritage Unit Elders* Aunty Di Kerr Allan Wandin Bobby Mullins *Heritage Advisors* Zara Lasky-Davison Maria Daikos	*Sponsor* Meg O'Brien Jen Sweatman *Ripple* Carmen Loo	**Meeting** Meeting held to formulate management conditions. Cultural heritage was identified within the activity area. It was considered that there was low potential to contain Aboriginal cultural heritage other than the ten artefacts found; therefore, Wurundjeri Elders endorsed the implementation of their general management conditions, on the provision that the HA drafted the wording of the conditions prior to submission of the CHMP for evaluation. This includes the HA/Sponsor notifying the RAP on the finalised alignment that considers harm avoidance and minimisation. Sponsor proposed to focus inspections on areas of higher sensitivity – artefact locations, drainage lines and creeks which was endorsed by the Elders. Standard conditions and contingencies apply as do the following requirements. Repatriation of Aboriginal Cultural Heritage – second option of the RAP handling the storage of artefacts and to be reburied within a six-month timeframe. Harm avoidance of the Place (If harm avoidance is deemed possible). – Fencing is not required of positive MTP locations (endorsed by Elders) Bore head Retrieval – Sponsor to discuss and confirm if this will be necessary – Sponsor will determine cost effectiveness of retrieval under the highway or a creek.

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Date	Participants			Details and Outcomes of Consultation
	HA	WWCHAC	Sponsor	
28.02.2024-31.03.2025	Meredith Filihia	Zara Lasky-Davison	Jen Sweatman (YVW)	**Email** Draft management conditions were sent to the RAP for endorsement. Consultation followed regarding harm avoidance to registered Places and in particular VAHR 7822-4957. As Service proving was not able to be conducted during the complex assessment, and in order to allow for the timely construction of the pipeline, it was agreed that harm could be permitted but that the activity description needed to allow for changes in alignment in the pipeline to accommodate harm avoidance where possible when service proving and ongoing consultation with Council regarding the alignment of a future shared path as the alignment of the pipeline is somewhat tied to that of the future path.
19.06.2025-27.06.2025	Meredith Filihia	Anna Alcorn	Jen Sweatman (YVW)	**Email** At the request of the RAP, the CHMP was withdrawn from evaluation with the RAP requesting further information regarding Condition 3 (inspections) and the insertion of new wording for Condition 10 (relating to retrieval of bore heads during the activity. The Sponsor's HA forwarded an email clarifying the reason for the removal of two inspection locations in the north of the activity area; namely, that this area was outside of the construction footprint and that this area was included for the access into the activity area. The Sponsor has clarified that the existing access track will be used and should it need to be improved for use during the activity, crushed rock/ballast will be brought into the activity area. Regarding Condition 10, the RAP HA confirmed that the even though the Sponsor had stated at the complex results meeting that bore head retrieval would not be undertaken during the activity, the Elders requested that this Condition be left in the CHMP as provided in the evaluator's comments as it has no application unless it is found unexpectedly during the activity that bore head retrieval must be undertaken.

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Date	Participants			Details and Outcomes of Consultation
	HA	WWCHAC	Sponsor	
23.07.2025	Meredith Filihia	Anna Alcorn (HA)	Jen Sweatman	**Email** An email was sent to the RAP HA indicating that as VAHR 7822-1177 was no longer within the extent of the activity area, the previously agreed condition that permitted harm to this place would be removed.
18.08.2025	Meredith Filihia Ian Ostericher	Anna Alcorn	*Sponsor* Jen Sweatman Meg O'Brien *Ripple* Carmen Loo	**Meeting** An online meeting was held between the Sponsor, their HA and the RAP HA to clarify some comments provided by the RAP HA in the evaluation of the CHMP. The discussion particularly aimed to clarify: the description of the activity in relation to offtakes on the alignment of the pipeline, the nature of any ground disturbance that may be required for the construction of the access track in the northern section of the activity area, the number and location of any inspections required in the northern section of the activity area, in particular the request to conduct an inspection prior to the laying of the geofabric and crushed rock to create the access track and another inspection following its removal. The Sponsor indicated it would be possible to leave the crushed rock and geofabric in place at the conclusion of the activity. The meeting also addressed the Elders' concerns about TP06 not appearing to reach a sterile clay base. The Sponsor's HA asked whether it would be possible to have either monitoring or an inspection rather than returning to the field to excavate a new TP. The RAP HA indicated that if there were no obstacles to excavating a new TP at that location then RAP Cultural Heritage Officers could be available. The Sponsor indicated that there is time pressure on the delivery of the asset; however, the option of returning to the field would also be investigated. The RAP HA said that this would all be discussed with the Elders and a response would be provided at the earliest opportunity.

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	HA	WWCHAC	Sponsor	
21.08.2025	Meredith Filihia Ian Ostericher	Anna Alcorn	*Sponsor* Jen Sweatman *Ripple* Carmen Loo	**Email** The RAP HA sent an email indicating that following the meeting on 18.08.2025, the matters had been discussed with the Elders and they had requested the reinstatement of the inspection point at the location of the offtakes and an inspection prior to the laying of crushed rock and geofabric for the creation of the access track. It was confirmed that if the access track is to be left in place at the conclusion of the activity, there would be no requirement for a second inspection at this location. Following additional email correspondence, it was agreed that no inspection would be required at the location of the offtakes. The Elder's request to return to the location of TP06 to excavate a 1 x 1 m TP to sterile base clay was also confirmed.
28.08.2025	Meredith Filihia Ian Ostericher	Anna Alcorn	Jen Sweatman	**Email** An email was sent from the RAP evaluator confirming the Elders no longer require an inspection to be undertaken when laying geofabric and crushed rock over the existing access track in the north of the activity area.
02.09.2025	Meredith Filihia	Anna Alcorn	Jen Sweatman	**Email** The Sponsor's HA forwarded a map of the required inspection locations to confirm that these are in line with the expectations of the Elders following both the online meeting and subsequent email correspondence. Photographs were forwarded of the location of TP05, TP06 and TP06-2, in which the nature of the ephemeral drainage line is shown to illustrate the Sponsor's reasoning for having only one inspection of these points.

6.5 Summary of Outcomes of Consultation

A Notice of Intent to Prepare a Cultural Heritage management Plan was sent to the RAP at the commencement of the project; the RAP responded and indicated their intention to consult with the Sponsor and participate in the assessments conducted for the CHMP and to evaluate the CHMP when complete.

Meetings were held with the RAP and RAP fieldwork representatives were present during both the standard and complex assessments that were undertaken for the CHMP. The complex assessment methodology was endorsed by the RAP and carried out accordingly. Aboriginal cultural heritage was found during the assessments and extent testing was carried out. It was the agreed in the complex

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assessment results meeting that the RAP's standard general conditions and contingencies would be included. The Sponsor indicated that avoidance of harm to the LDAD components found during the complex assessment was being investigated. Conditions were agreed both at the meeting and in subsequent email correspondence. During the email correspondence regarding the endorsement of the conditions, it was agreed that harm could occur to the three Places that were located in the activity area. A subsequent update to the activity area meant that one of these Places, VAHR 7822-1177 (Summerhill Rd Railway Res. 1) was no longer within the activity area and the Sponsor's Heritage Advisor emailed the RAP to confirm the removal of the previously agreed condition to permit harm to this Place. Following the submission of the CHMP for evaluation, an additional meeting and email correspondence was undertaken between the RAP and the Sponsor regarding the nature of some aspects of the activity and the need for additional inspections. The Elders also affirmed their request to excavate another 1 x 1 m TP at the location of TP06, ensuring that this reaches the sterile base clay. The excavation was undertaken with RAP Cultural Heritage Officers present and the results forwarded to the RAP for their information.

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7 DESKTOP ASSESSMENT

The desktop assessment includes research into information relating to Aboriginal cultural heritage in or associated with the activity area.

7.1 Environmental Context

Environmental factors influence how land may have been used in the past. This section reviews the environmental context of the activity area to gain an understanding of environmental factors relevant to Aboriginal cultural heritage.

7.1.1 Geographic Region

The geographic region for this CHMP is entirely located within the Victorian Volcanic Plain (VVP) and is defined with reference to a number of waterways that would have been significant markers on the landscape which influenced the movement of Aboriginal people through the region (Map 5). The eastern extent of the geographic region follows the west bank of Merri Creek before turning north-east to take in the elevated point of Woody Hill, which would have provided a vantage point from which to view the land. The geographic region then continues north to pick up the course of Merri Creek again, following it in a westward direction before reaching a point from which an arbitrary line meets the headwaters of Malcolm Creek. The western and southern extent of the geographic region is defined by the course of Aitken Creek.

7.1.2 Geology, Geomorphology and Soils

The Victorian Western Plains (Western Plains) comprise of low-lying undulating plains which have been formed through volcanic and sedimentary petrology (DEECA 2023a). The lava of the Western Volcanic Plains represents the youngest phase of volcanic activity in Victoria, termed the Newer Volcanics, active from 4.6 million years ago to within (geologically) recent times (Late Pleistocene – Early Holocene). Although the flows have been grouped into 'Older' and 'Newer' Volcanic groups, there were not two separate volcanic events. Rather, "volcanism has continued intermittently over 190 million years and the Newer and Older Volcanics represent volumetric peaks at around 42-57 million years ago and 0-5 million years ago" (Birch 2003:361; Price et al. 1988:439-451).

Map 6 shows that the geology of the geographic region comprises the following geological units:

- Neo – Newer Volcanic Group; and
- Sxm – Melbourne Formation.

Extensive basalt lava flows and unnamed sheet flow basalt originating from the elevated eruption point at Hayes Hill dominate the Craigieburn region. The region is also characterised by stony rises, with the younger rises typified by stony mounds and minimal development of surface drainage, whereas older stony rises exhibit small ephemeral lakes, swamps and wetlands and some soil development. During times of high volcanism, lava was very fluid and flowed according to the lowest points within the

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landscape, particularly major south-trending valleys. This pattern of flow often resulted in blocked drainage systems; therefore, drainage is poorly developed across the region (Agriculture Victoria 2023).

Map 7 shows that the activity area is located on two geomorphological units (GMU): GMU 6.1.1 and GMU 6.1.2. GMU 6.1.1 is Eruption points: maars, scoria cones and lava shields, including associated ash and scoria deposits (Lake Purrumbete, Mt. Elephant, Mt. Cottrell) (Agriculture Victoria 2023) . Some of the maars have lakes in their wide craters, such as Lake Purrumbete, Lake Bullen Merri and Lake Gnotuk. The young volcanoes, with their craters, flows and ash deposits, are from less than one million years in age and were active almost up to the present day. Within the activity area, Mount Ridley is one such eruption point, being a volcano with two vents approximately 600 m apart (Agriculture Victoria 2023) .

The second GMU is GMU 6.1.2 (Stony rises Mt. Eccles, Pomborneit, Mt. Rouse). The stony rise lava flows represent the most recent volcanic activity (Agriculture Victoria 2023). The landscape is characterised by stony mounds that contain little or no soil content. Additionally, the area contains no surface drainage development.

7.1.3 Landforms and Hydrology

The Victorian Volcanic Plains Bioregion is characterised by extensive flats, undulating basaltic plains and stony rises. The stony rises in particular have developed atop the underlying basaltic geology, including rocky hummocks and ridges, separated by flat areas with significant Gilgai micro-relief.

The Victorian Volcanic Plains Bioregion is characterised by poorly developed drainage and areas of inundation where lava flows have blocked previous drainage lines (Agriculture Victoria 2023). Within the activity area, expected landforms are flat or gently undulating plains, volcanic cones and stony rises. Woody Hill is located in the geographic region; however, it is not within the activity area itself. Mount Ridley, a volcanic cone, is located within the activity area.

The activity area crosses Malcolm Creek in the south and the significant waterway of Merri Creek between Mickleham and Donnybrook. The waterway of Aitken Creek is located to the south and west of the activity area, forming the border of the geographic region in that direction.

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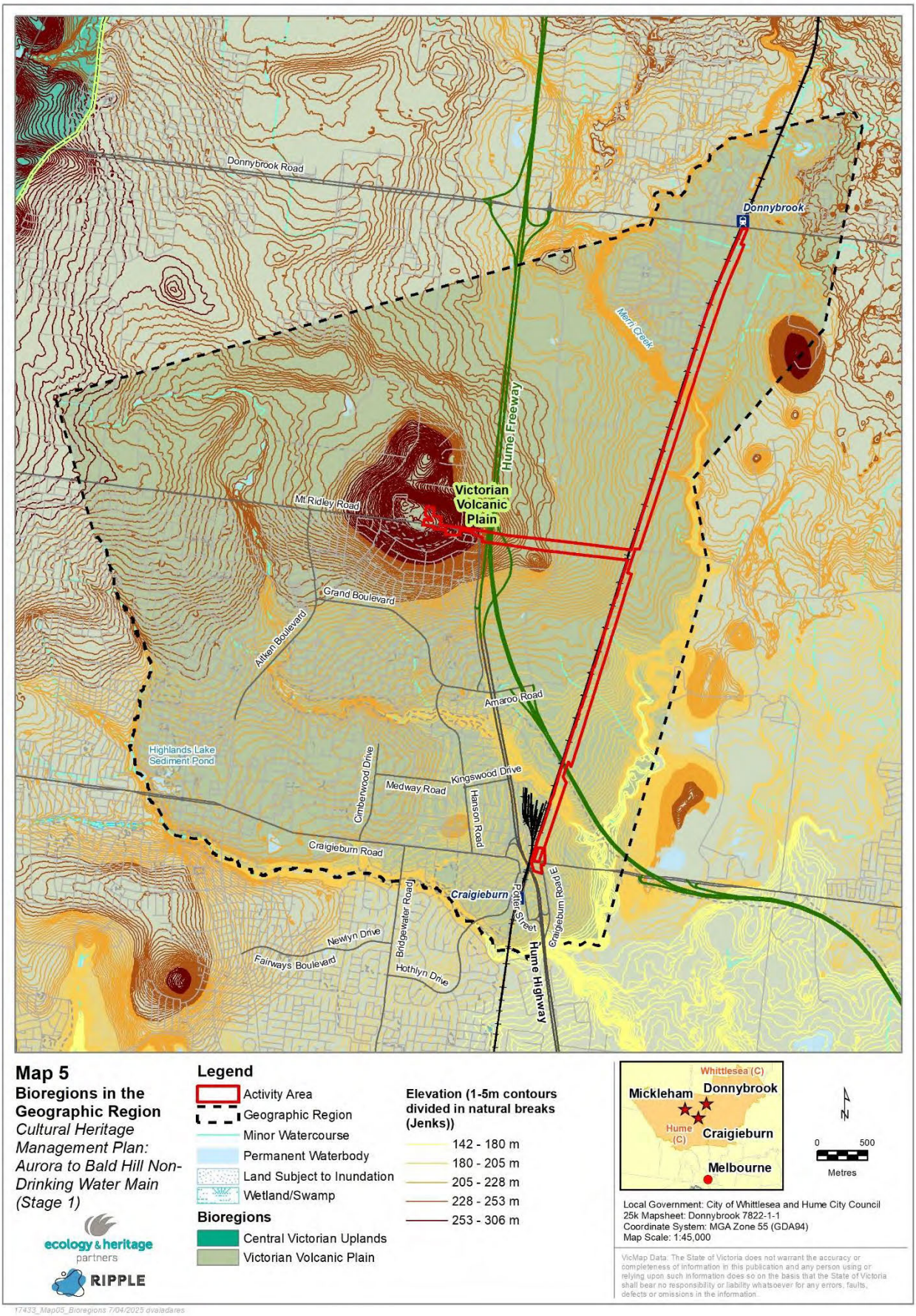

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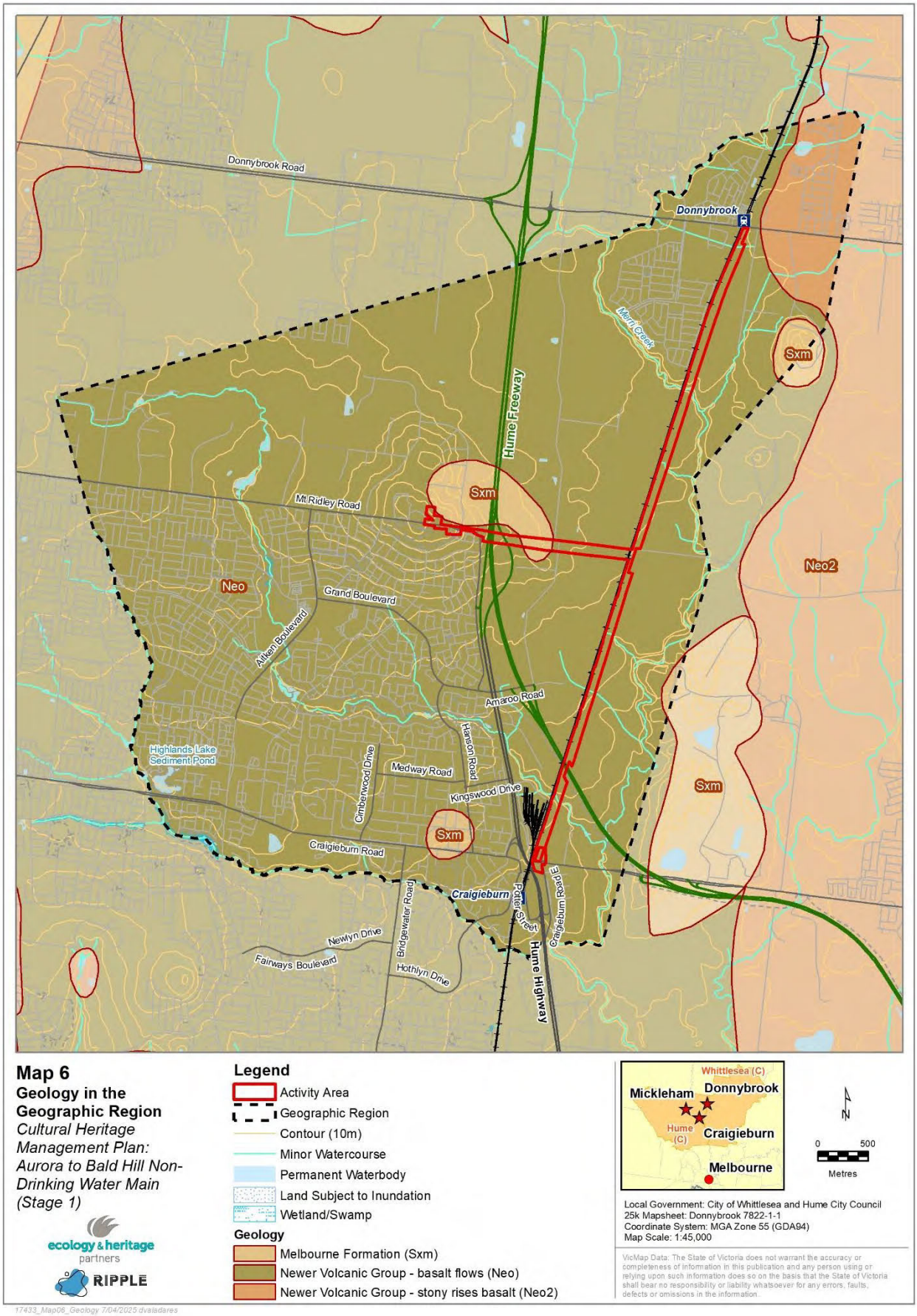

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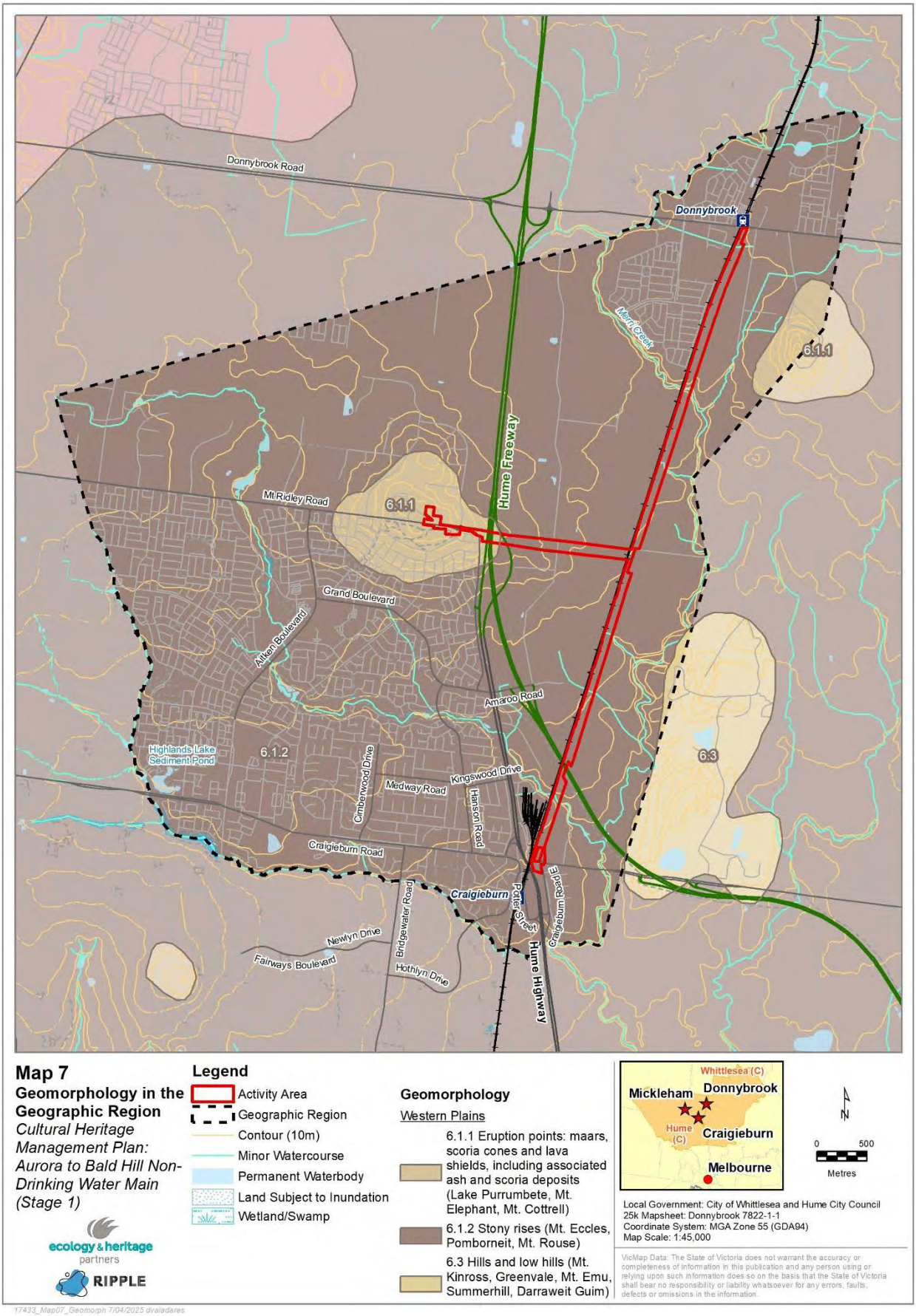

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7.1.4 Late Holocene Vegetation

Prior to European settlement, the basaltic soil types of the activity area would have historically supported open forest of Eucalypt trees and grassy plains, with considerable variation in structure and species depending on climate, elevation and soil parent material.

According to the Department of Environment, Energy and Climate Action's (DEECA) Naturekit (DEECA 2023a) mapping of vegetation prior to European colonisation (Pre-1750 EVCs; Map 8), the activity area would have contained three vegetation classes: Plains Grassy Woodland (EVC 55), Grey Clay Drainage Line Aggregate (EVC 124), Plains Grassland (EVC 132) and Escarpment Shrubland (EVC 895).

EVC 124 Grey clay drainage-line aggregate: This vegetation class is associated with the inundation prone habitat of slightly mineralised drainage lines in more elevated sections of the basalt plains. It tends to be rare and localised, identified from very few locations, and includes habitat of the extremely localised Curly Sedge (*Carex tasmanica*). The vegetation of associated grassy terraces, subject to occasional inundation, has affinities with Creekline Tussock Grassland. Typical species of this class include Curly Sedge (*Carex tasmanica*), Adamson's Blown-grass (*Lachnagrostis adamsonii*), and Low Bulrush (*Isolepis cernua*) (DEECA 2023).

EVC 132 Plains grasslands: This vegetation class would have comprised largely treeless vegetation mostly less than 1 m tall dominated by largely graminoid and herb life forms. The EVC occupies fertile cracking basalt soils prone to seasonal waterlogging in areas receiving at least 500 mm annual rainfall. Medium to small tufted graminoid species dominate the vegetation cover, including species such as Kneed Spear-grass (*Austrostipa bigeniculata*), Long-hair Plume-grass (*Dichelachne crinita*), Kangaroo Grass (*Themeda triandra*), Common Wallaby-grass (*Austrodanthonia caespitosa*) and Common Wheat-grass (*Elymus scaber var. scaber*) (DEECA 2023).

EVC 55: Plains Grassy Woodland: This ecosystem is sparse of larger trees comprising less than 10% cover; these were predominantly River Red Gums (*Eucalyptus camaldulensis*). The predominant vegetation in these areas comprised largely tufted graminoid (grass) and herb species, representing some 80% cover. Common species included Kangaroo Grass (*Themeda triandra*), Bristly Wallaby Grass (*Austrodanthonia setacea*), Common Rice-flower (*Pimelea humilis*). The remainder comprised small to large shrubs including Golden Wattle (*Acacia pycnantha*) and Hedge Wattle (*A. paradoxa*) (DEECA 2023).

EVC 895 Escarpment Shrubland: This vegetation class occurs on rocky escarpments in steep valleys or gorges, associated with limestone or basalt. Sites have moderate to high fertility, are well-drained but subject to regular summer drought due to shallow soils. Eucalypt woodland to 15 m tall or non- eucalypt shrubland to 8 m tall, with occasional eucalypts; lichen-covered rock outcrops are common (DEECA 2023).

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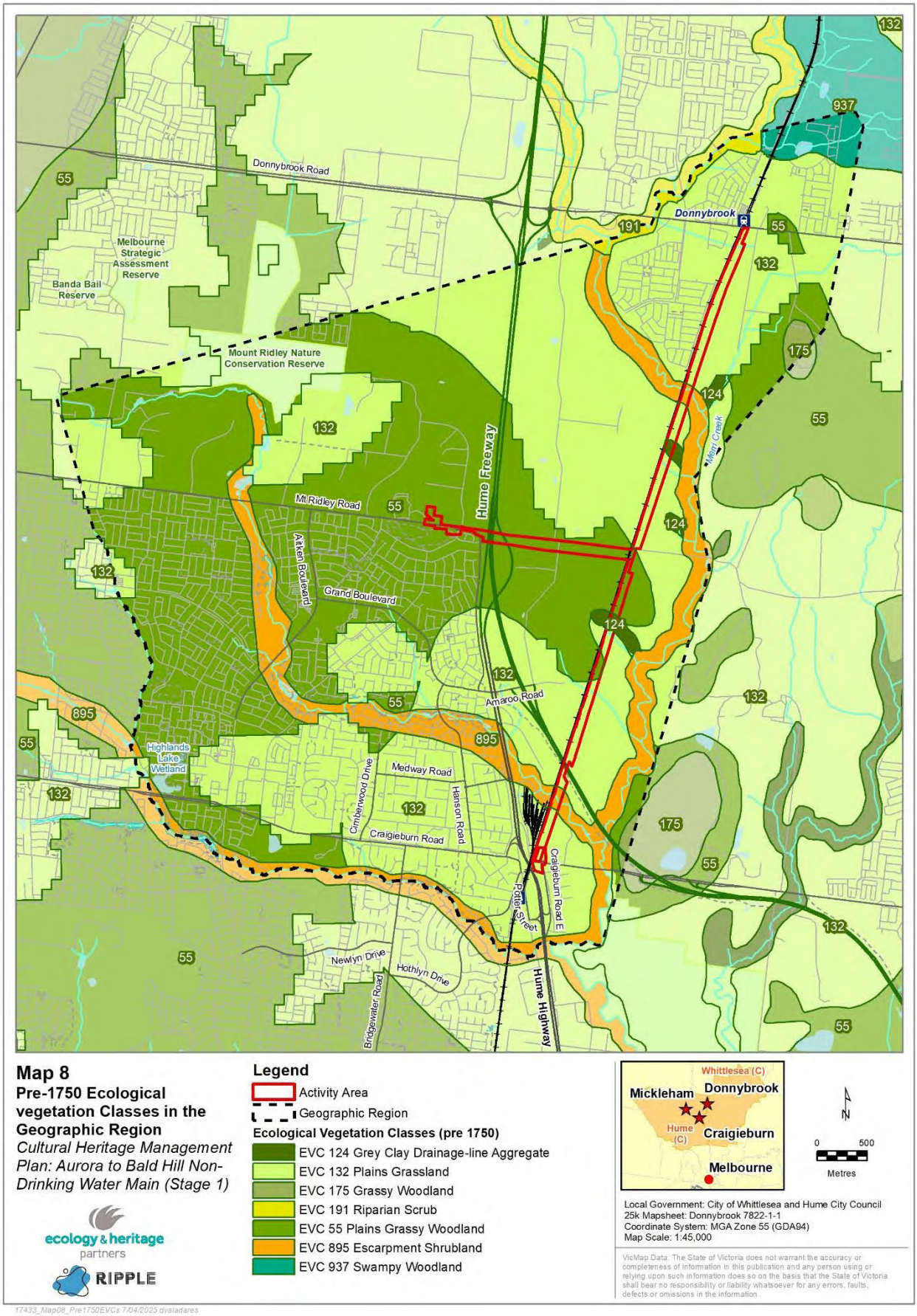

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7.1.5 Paleoenvironment and Climate

During the Late and Terminal Pleistocene from 60,000 to 12,000 years ago, climatic conditions in south-eastern Australia were considerably drier and cooler. Although there is uncertainty as to how much cooler the conditions actually were at the Last Glacial Maximum (LGM) approximately 18,000 years, a significant variation of 8°C below current temperatures is considered likely for southern Australia (Markgraf et al. 1992; Mills et al. 2013:5; Pickett et al. 2004:1431). River channels in the Murray-Goulbourn system were much larger during the terminal Pleistocene; this is attributed to much greater seasonality of flows related to snow melt during periods of overall drier landscape (Mills et al. 2013:5–6). Sedimentary and microfossil data from lakes in Victoria suggest the period of maximum aridity was after the LGM, from 15–10,000 BP (Mills et al. 2013:6).

Due to the significant lowering of sea level at this time, a land bridge extended from southern Victoria across Bass Strait to Tasmania (Lambeck and Chappell 2001). Several studies indicate that increased aridity also resulted in significant reduction in Australia's forests and expansion of arid steppe or savannah vegetation. Reconstructions of LGM forest loss in temperate Australia suggest that a thin and broken band of temperate forest or woodland persisted along the eastern and south-eastern coast of Australia as some coastal pollen sites indicate forest and others do not (Dodson et al. 1988). Other studies (Thom et al. 1994) suggest woody vegetation was confined to localised favourable microsites such as river valleys. In Tasmania pollen evidence shows that areas now mainly covered by temperate evergreen forest were a semi-arid steppe, rich in chenopods, during the LGM (Markgraf et al. 1992; Pickett et al. 2004:1430). This sparse xerophytic vegetation would have extended across the land bridge to southern Victoria. By the beginning of the late-Holocene, around 6000 years ago, pollen cores indicate vegetation was similar to that which existed just before European settlement though a moister climate, and hence moisture-demanding vegetation, prevailed (Pickett et al. 2004).

The modern climate of Craigieburn, Mickleham and Donnybrook is characterised by warm summers and cool winters; temperatures range between an average maximum of 26°C and minimum of 14°C in January to an average maximum 13°C and minimum 5°C in July. Rainfall varies between a maximum of 61 mm in November and 36 mm in March, with annual average rainfalls of 279 mm (BOM 2023).

7.2 Archaeological Research

7.2.1 Stone Tool Technology

Archaeological evidence suggests that Aboriginal Peoples had occupied all of Australia's environmental zones with Pleistocene archaeology of the Port Phillip Bay and Hinterland area documenting human occupation dating back to at least 40,000 years (Coutts et al. 1976:68). The oldest dated archaeological site in Victoria occurs at Keilor in Melbourne. Charcoal from a hearth excavated in 1973 has been dated to 31,000 years BP (Flood 1995:286). More recently research at the Bend Road site in Melbourne's southeast has dates extending back to 30–35,000 BP (Hewitt and Allen 2010). However, the majority of the site is associated with the late-Holocene backed artefact period—the site has now yielded hundreds of asymmetric points and geometric microlith forms. The Bend Road Place points to a [illegible] relevant to many greater Melbourne Aboriginal

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Places. Notably, the site is located on an undulating sand promontory jutting out into the northern end of Carrum Swamp. Such land was likely subject to irregular inundation and periodic drying, Hewitt and Allen (2010:3) state:

> *"Aboriginal use of this resource was also likely to have been seasonal. Ethnographic accounts suggest that birds, eggs, fish, yabbies, shellfish, eels and edible swamp plants, together with the focus the swamp provided for foraging terrestrial marsupials, would have made the area an important resource . . . especially in spring".*

Other recent interpretations however note that this method of proxy dating is being shown to be problematic as an increasing number of Places securely dated to the Pleistocene contain assemblages of back artefacts (see for example Brook (2006), Hamm et al. (2016); Hiscock (1994); McDonald et al. (2018) and Theden-Ringl (2017)).

7.2.2 Aboriginal Land Use and Anthropogenic Change

As numerous studies have sought to demonstrate; the pre-European Australian landscape was a product of Aboriginal land management, not a passive field for Aboriginal habitation.

Gammage (2011:46) notes that early European settlers were amazed at the 'park-like' character of the landscape west of Melbourne, a character established through regular fire management. In regard to the current geographic area he suggests the stretch of land depicted between the You Yangs and Mt Macedon depicted in Hoddle's *View from Batman's Hill* (1840) represents a vast stretch of land with "no stumps and barely a tree, and those distant few are in lines." Gammage (2011) argues this was an anthropogenic vista of open grasslands and "the greenness of the country proceeds from its having been recently burnt and some heavy rains falling since". He further surmises "this land may have been sheet-burnt regularly to expose Yam Daisy, which grew in millions here. Perhaps the yellow streaks in Hoddles's painting depict them" (Gammage 2011:46).

Likewise, Presland (2008:119–120) has noted the extensive burning regimes practiced in the grasslands west of Melbourne: "in grassland areas, firing led to new growth, which attracted game and, carried out at the right time of year, promoted higher yields in some tuber-bearing plants. Aboriginal targeting of specific plants for food, for example Murnong *Microseris lanceolata*, would most likely have had an impact on such species" (Presland 2008:119).

> *Regular burning by Aborigines almost certainly kept large parts of the Melbourne area, particularly to the west of the Maribyrnong River and in the north, clothed with a structure of grassland . . . Similar results almost certainly defined smaller-scale changes such as the assisted growth of particular plants. The range of plants such as Murnong may have been extended to some degree but it still only occurred within the areas that provided its preferred habitat. It remained a plant of the plains and dry foothills; the actions of Aboriginal people did not lead to it growing in damp river valleys or swampy locations.*

7.2.3 Post-Contact Land Use History

The activity area passes through three outer northern suburbs of Melbourne: Craigieburn in the south, Donnybrook in the north with a branch of the proposed NDW pipeline extending west into the suburb of Mickleham. The post-contact land use history of all three areas follows a similar trajectory, namely,

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settlement by pastoralists, the subdivision of large estates into smaller farming allotments and, finally, more intensive residential development.

Following the exploration of Port Phillip Bay and its hinterlands colonists arrived and took up large pastoral runs in the land north of Melbourne. These early settlements were rapid and demonstrated the utilisation of land to the north of Melbourne for agricultural purposes such as farming and grazing. Much of the agricultural land was used by pastoralists in the late 1830s in which landowners who did not live on their properties would engage with tenant farmers who would manage sheep grazing and grow wheat and potatoes for local consumption (Peel 1974: 13, 16-20). Much of the land including the current activity area had been cleared and settled by farmers and graziers. Dairying, sheep and cattle farming have been the primary industries and land use in Craigieburn since European settlement (Payne 1980: 105). Despite this initial period of production, by the 1860s poor farming practices had resulted in much of the soil becoming infertile and not of good quality for farming. As a result, property values had fallen which overall saw the area be re-employed largely for pastural and grazing uses. Bailliere (1865) first described Craigieburn as "A small hamlet in the Parish of Kalkallo on the Merri Creek and Sydney Road, about 3½ miles from Donnybrook. The country is undulating and occupied by a few small farmers. The land is not considered good for agricultural purposes and has scarcely any timber".

In the 1840s Craigieburn and Donnybrook were connected to Melbourne when Sydney Road was constructed as a dirt track between Melbourne to Sydney. Craigieburn was frequently used as a resting point for people travelling between the two towns. The region was further connected to Melbourne as a result of the construction of a railway line in 1872 which serviced Essendon and Seymour, and stations were built along the line at Somerton, Craigieburn, and Donnybrook (Hume Libraries 2013). Donnybrook Station is located at the northern extent of the activity area while Craigieburn Station and railyards are located near the southern extent.

The construction of the railway line meant that daily trains ran to and from Melbourne, which resulted in improvements in communications and access to the Melbourne market. As a result, the train station became incentive for many prospective buyers who were interested in the area. This resulted in a land boom in the 1880s where at least four syndicates purchased land around Somerton and Craigieburn which was intended to be used for the subdivision of larger estates and then selling the land to small investors. However, some large estates still existed, such as the Clarke Estate west and north of Kalkallo which remained intact through to 1911 (Lemon 1982: 62, 85; Payne 1975: 105).

In the first decade of the twentieth century the State government devised the Closer Settlement Scheme which had the intention of breaking up the large estates into smaller farms which could be taken up by landholders or tenant farmers who could try to make a living from the land. Although pastoral runs were present in the area, the Donnybrook region was primarily used for dairying until World War II, when pastoralism became the primary industry. Craigieburn was still being used for small-scale farming until at least the 1950s (e.g., *The Argus*, 23 June 1956). Mickleham Road began to be subdivided into smaller properties in the early twentieth century, although the general layout remains the same as 100 years prior.

The former Sydney Road was still heavily utilised and was gradually upgraded overtime and being eventually renamed to the Hume Highway in 1928. The Hume Highway was redirected along its current

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alignment in 1962 to ease traffic flow. Originally, the road had run where Potter Street now lies, before continuing along its original alignment.

Land Use in the activity area

Within the activity area itself, the land has been used for grazing, subsurface utilities including electrical cabling and a sewer main. The majority of the alignment of the proposed NDW main follows the alignment of the Amaroo Road main sewer, which is located at the side of the Melbourne – Sydney railway line.

Where the alignment of the NDW main extends to the west towards Mount Ridley, the land has been used for the construction of roads with associated stormwater and drainage infrastructure. There is one crossing of the Melbourne – Sydney railway line on Summerhill Road. There are two large Yarra Valley Water reservoir tanks on the top of Mount Ridley. Along Summerhill Road, the subdivision of land into small farm landholdings is evident; one of these allotments is currently in use for storage and deposition of fill and other building materials.

Roads within the activity area include Craigieburn Road East, the Hume Freeway, Amaroo Road, Summerhill Road, Mt Ridley Road, Langley Park Drive and Donnybrook Road; the road reserves of these roads are included in the activity area, as is the rail reserve of the Melbourne – Sydney railway line where the activity needs to cross beneath the railway line.

7.2.4 Before You Dig Australia (BYDA)

Before You Dig Australia searches (Job no. 35869542, 35867064, and 35822380) were conducted on 17 January 2024 and 24 January 2024 to determine which asset owners have assets within and nearby the activity area. The following search results were produced (Table 7):

Table 7: Summary of Before You Dig Australia Search Results (BYDA 2024)

Service	Location
Jemena Electricity Networks (Job no. 35869542)	HV/Subtrans poles were located running East-West ending on Summerhill Road. A connection and distribution station were located <100 m from the Western side of train tracks on the Northern side of Summerhill Road. Additionally, a connection and LV cable running was found running East-West and ending at another connection and distribution station on the Western track with a remaining ½ of the cable on the Northern side of Summerhill Road. HV/Subtrans pole was located beside an Eastern connection on the Western Track. All of these attributes are within <750 m of an Aboriginal Cultural Heritage Site, namely Merri Creek
Jemena Electricity Networks (Job no. 35867064)	Two electrical ducts going East-West were found going along Summerhill Road through Hume Highway with an accompanying pole pit. A HV/Subtrans pole North-South located along Brookville Drive before rounding West onto Summerhill Road. There are HV/LV poles every ~50 m and on Amaroo Road (South of Summerhill Road) and running East-West along Summerhill Road. There is a distribution substation located directly East of Hume Highway following the Western direction of Summerhill Road, with additional distribution substations located ~100 m West of the aforementioned distribution substation; ~<50 m before Brookville Drive intersects with Summerhill Road; at the Southern end of Amaroo Road – the fourway intersection; located on

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	the Eastern aspect of Summerhill Road towards the train crossing. There are HV/LV lighting poles lining Amaroo Road. Additionally, there is an unlabeled path going East-West across the Hume Highway then curving North onto Brookville Drive. HV/LV pole connected to a curved cable before the 2 electrical ducts going East-West along Summerhill Road through Hume Highway with a pole, but only connected to one of the two ducts present. An underground cable is present with service pits at either end, one of them being in line with a communication pit running North-South across Summerhill Road. A public lighting cable with service pits at either end but no other details about this cable were presented on the map provided. A duct is present going North-South on Brookville Drive with a mains joint present in the middle of the duct. A North-South duct is present with an HV/LV pole going across Summerhill Road. A duct running East-West along Summerhill Road curves onto Brookville Drive. HV/LV and HV poles were found West of the crossroads of Summerhill Road, Brookville Drive, and Amaroo Road.
Jemena Electricity Networks (Job no. 35822380)	An electrical duct was found located after Eastern roundabout on Mt. Ridley Road. There is a high concentration of electrical networks in neighbourhoods and developed areas though none present beneath the Mt. Ridley Lookout grass plot. Electrical wires are concentrated around the Eastern roundabout but none listed for a private home off Panorama Drive. 2 electrical ducts cross Hume Highway going East-West; these are not labelled as underground as they come from the end of Mt. Ridley Road curve that runs south. The present underground service cable on Mt. Ridley Road runs East-West. There are proposed nodes and power pit North of Mt. Ridley Road. Parkside Reserve has no electrical connections
Optus (Job no. 35822380)	Manholes are present along Mt. Ridley Road and the Hume Highway. Additionally, an underground IOF cable was found running North-South following the Hume Highway. Marker posts are present on the land between Mt. Ridley Road and the Hume highway system.
Nextgen Group (Job no. 35867064)	A cable runs North-South from Brookville Drive before turning 90 degrees Eastwards onto Summerhill Road with another 90 degree turn South onto Amaroo Road and continuing on. There are cable markers along the aforementioned, largely concentrated around the intersection and continuing Southwards. It should be noted that there is a single marker at the crossroads between Brookville Drive and an unnamed road to the West.
TPG Telecom (Job no. 35867064)	Soul Pattinson telecommunications pits and ducts are found going East-West across Hume Highway just before 55 off ramp, which heads South-West. These pits and ducts occur <1 km above the ramp and begin initially on the East side of the Hume Highway going North-South before making a 90 degree turn to go East-West across the Hume Highway. Pipe Networks pits and ducts begin at the Western end of Summerhill Road before angling 45 degrees and continuing on the Southern side of Summerhill Road before curving South to follow Amaroo Road on its Western side.
Yarra Valley Water (Job no. 35867064)	A water main is present running north-south along Brookville Drive then curving west onto Summerhill Road to go across Hume Highway. A hydrant and valve are present at the crossroads of Brookville Drive and an unnamed road northwest of Summerhill Road. There is an underground hydrant at the Mt. Ridley Road curve which heads south; 2 valves are present at this same location. A watermain goes east-west across Hume Highway. There is an above ground hydrant on the western side of Hume Highway with one valve in the same location.. A sewer line runs north-south along Hume Highway and the eastern side of the [illegible] should be noted that an abandoned sewer running North-

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	South is present at the Mt. Ridley-Hume Highway crossroads on private land.
Yarra Valley Water (Job no. 35822380)	Two recycled water reservoirs between an Anglican School and private property on Panorama Drive. There is a watermain under Mt. Ridley Conservation Reserve going southeast and eventually crossing the Hume Highway. Sewers are present in the neighbourhoods, developed areas, and running north-south along Hume Highway.
Hume City Council (Job no. 35822380)	Stormwater pipes and pits located within the western most point of the activity area and developed areas running in an east to west direction along Mt Ridley Road.
NBN VicTas (Job no. 35867064)	A power pit is present at the end of Mt. Ridley Road before it curves south. There is a buried cable along Summerhill Road, Brookville Drive, and Amaroo Road. Cables running north-south were located going into private property along Brookville Drive. It should be noted that maps provided for this area by NBN VicTas are sparsely labelled and makes it difficult to identify where private electrical lines are located. Cables mostly following the road.

7.2.5 Aerial and Satellite Imagery Interpretation

Aerial imagery from 1984 demonstrates that much of the land surrounding the activity area has been used for agricultural purposes. The alignments of the railway line and Hume Highway are visible; however, the Hume Freeway (Craigieburn Bypass) was not constructed. The waterways of Merri Creek and Malcolm Creek are visible.

Figure 2 shows that, despite increased residential development in Craigieburn to the west of the activity area, land use within the activity area itself has undergone little change. The Hume Freeway cuts through the activity area and there is an increased amount of infrastructure associated with the railway. Remnant vegetation is still visible along the extension to the west along Summerhill Road, and the crescent-shaped area of Mount Ridley Conservation Reserve is visible although construction has not commenced. The Yarra Valley Water recycled water reservoir tanks can be seen in the left of the image.

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Figure 1: Aerial photograph of the activity area in 1984 (indicative location outlined in red) (Source: Geoscience Australia 2025)



Figure 2: Aerial photograph of the activity area in 2006 (outlined in red) showing increased residential development in Craigieburn (Source: Geovic 2025)

Figure 3 and Figure 4 are Nearmap satellite images of the activity area in 2025 to show some of the previous impacts that have occurred in the pipe track. Figure 3 shows access tracks immediately south of Donnybrook Road; Figure 4 shows and other areas of previous disturbance.

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Figure 3: 2025 satellite image of the activity area showing previous impacts in the area where a new access track will be created south of Donnybrook Road (Source: Nearmap 2025)

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Figure 4: 2025 satellite image of the activity area showing previous impacts in the area of Summerhill Road east of the railway line (Source Nearmap 2025).

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7.3 History and Ethnohistory of the Woi Wurrung

At the time of European settlement, the Woi Wurrung clans collectively claimed all the area drained by the Yarra River and its tributaries (Presland 2010:21). Thus, their territory was bordered in the south by Mordialloc Creek (the northern limits of the Boon Wurrung), in the west be the Werribee River, in the north by the Great Dividing Ranges, and in the east it stretched into the Dandenong Ranges past Warburton (Presland 2010:21).

At the time of European contact, the region surrounding the activity area lay within the traditional lands of people from the *Woi wurrung* language group. This language group is believed to have occupied the Yarra and Maribyrnong watersheds, bounded on the north by the Dividing Range from Mount Bawbaw westward to Mount William and Mount Macedon and on the west by the Werribee River (Clark 1990:379). The *Woi wurrung* were divided into six smaller clans and each clan was responsible for a specific section of *Woi wurrung* territory.

The clan responsible for the Craigieburn/Mickleham/Donnybrook area was *Wurundjeri balluk*, whose territory extended from the bank of the Yarra River north along all is major tributaries such as the Plenty River (Barwick 1984: 122). Historical sources suggest that *Wurundjeri balluk* occupied areas along the Yarra, Plenty and Maribyrnong Rivers (see Barwick 1984: 122).

Resources

The *Woi wurrung* country was rich in resources as it is located in the temperate south zone of Australia, which covers the south part of the continent. Due to a present rainfall in excess of 300 mm a year, the temperate zone has many watercourses and lakes, which provided a reliable water supply to the Aboriginal population. This allowed a relative growth of the human populations in the region, and in favoured areas, hunter-gatherers invested much labour on maintaining resources such as fish traps and weirs (Presland 2010:48).

The *Wurrundjeri balluk* occupied a large region north east of Melbourne. It consisted of wetlands which would supply food sources such as eels, mussels, fish, snakes and plants (plains grassy woodland); as well as an abundance of wetland birds. Past Aboriginal occupation in the area is still evident today through the scars that were left on trees and the stone tool fragments that are still being discovered across the landscape.

However, the mainstays of the Aboriginal diet were plants and roots. One of the most important foods was called Myrnong (*Microseris lanceolata, Microseris walteri and Microseris scapigera*), a tuber that resembled a dandelion, also known as Yam Daisy or Native Dandelion. In addition to this plant, there were more than 300 plants of which the roots or tubers were eaten, including the Bulrush (*Typha* sp.), Marsh Club Rush, Early-Nancy, Milkmaid, various orchids (*i.e.* Greenhood, Onion and Potato orchids) and many kinds of lilies (including Bulbine Lily, Chocolate Lily, Flax Lily and Pale Vanilla Lily) (Clarke 2011:72). Roots of common reed (*Phragmites australis*) were also collected to manufacture items of personal adornment (Presland 2010:71).

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Similar to other hunter-gatherer societies, there was a division of labour based on gender. Men would engage in hunting and women gathered plants and roots; although it is not unusual that these subsistence activities overlap, especially with women and young children capturing small animals during their foraging excursions.

Before the European invasion disrupted their way of life, the Eastern Kulin clans were able to move freely around their land on an annual cycle, with some *Woi wurrung* bands spending the warmer months on the banks of the lower Yarra, and during the cooler months they would move to higher land into the Dandenong Ranges (Presland 2010). A significant place along the Yarra River was a wetland complex called *Bolin*, where mature eels were captured by hand or speared (Presland 2010:67–68). Nets and traps were also used to capture eels and fish during the day and at night; spear fishing from a canoe was also practiced in freshwater bodies, attracting fish with a lighted brand near the water's surface. Two common freshwater fish that were captured include the Australian Grayling (*Prototroctes maraena*) and Tupong (*Pseudaphritis urvillii*) (Presland 2010:68).

Possums, especially the Brush-tailed Possum (*Trichosurus vulpecular*) were hunted for their meat and their skins that would later be used to make cloaks. Other animals included kangaroo, bandicoot, emu and other smaller quadrupeds; these were cooked and distributed among the participants of the hunting party, according to a set of very strict rules (Howitt 2001:764–765).

European Contact

In 1839 the Aboriginal protectorate scheme was introduced in Victoria. Four Assistant Protectors were appointed under a Chief Protector, George Augustus Robinson. The role of the protectorates was to provide food, shelter and medical supplies, record cultural and population information and to indoctrinate Aboriginal peoples in to the western European cultural and economic systems. Aboriginal reserves and stations were established across Victoria and Aboriginal people were encouraged to move into them. Woi-wurrung clans moved to the reserves and stations set up at Narre Narre Warren, Mordialloc, Warrandyte, and on the Acheron River. A school for Aboriginal children was also set up on Merri Creek. The Protectorate was largely unsuccessful and was disbanded in 1849 (Presland 1994: 100).

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The Central Board for the Protection of the Aborigines was founded in 1860 to provide an administrative structure to manage Aboriginal people in Victoria. Under their direction a series of missions and government stations were set up throughout Victoria, largely dictating where Aboriginal people could live. In the 1860s, the Coranderrk Mission Station was opened near Healesville. Aboriginal people from the Woi wurrung clan moved through, lived and worked on the station almost semi-

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autonomously up until the 1880s (Presland 1994: 100). Most Aboriginal people of Woi wurrung descent can trace their ancestry to people who were associated with the Coranderrk Mission Station.

While many Aboriginal people lived on the missions and government stations, a significant number of people worked and lived on farms and pastoral stations. Some Aboriginal people farmed the land on smallholdings, or worked in industries such as fishing gold mining, and in timber industries. People outside the reserves sometimes gathered together in camp sites on the outskirts of towns (Cahir 2012: 104).

By the turn of the century only a small population of Aboriginal people lived on the missions and government stations, with most living and working in the same general area. The last missions and stations were phased out in the 1920s. Pressure from the government forced most of the remaining Aboriginal peoples to leave the Coranderrk Mission Station and it closed in 1924 (DCCEEW 2024)

Since the 1920s, Aboriginal people have continued to live in most areas of Victoria, often with strong ties to their original clan and tribal areas. Aboriginal history this century has been marked by peoples' efforts to maintain their collective identity and culture (FP-SR 2023).

Today the descendants of the Wurundjeri balluk clan of the Woi-wurrung language group are represented by the Wurundjeri Woi-wurrung Cultural Heritage Aboriginal Corporation.

Oral History/Traditional Knowledge

WWCHAC Elders were asked by email on 22 April 2025 if they wished to contribute any oral history relating to the activity area. The RAP responded on 23 April 2025 and confirmed that the Elders had no oral history that they wished to share for inclusion in the CHMP.

7.4 Database Searches

The following section reviews the Aboriginal context of the activity area and includes; an examination of previously recorded Aboriginal archaeological Place types and locations in the geographic region of the activity area and, archaeological studies undertaken in the area. Together, these sources of information can be used to formulate a predictive Place model concerning what types of Places are most likely to occur in the activity area, and where these are most likely to occur.

The following database searches were conducted:

7.4.1 Victorian Aboriginal Heritage Register

A search of the Victorian Aboriginal Heritage Register (VAHR) was conducted on 04 April 2024 for Places within the geographic region. Searching an area with this extent ensured that a relevant and representative sample of information was obtained. An additional search of the VAHR was conducted on 03 April 2025 by Conor Gamble for Places and reports within the geographic region. A final search was conducted by Meredith Filihia on 15 August 2025.

The search identified a total of 98 registered Aboriginal Places within the geographic region. These Places consist of a total of 327 Place components comprising five Place types (Map 9, Table 6, Table 7).

One of these Places is located within the activity area (Table 7 and Map 9):

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- VAHR 7822-1574 (CRAIGIEBURN BYPASS 6) an artefact scatter consisting of one silcrete blade recorded in 2004, recorded during construction works for the Craigieburn Bypass section of the Hume Freeway. A second artefact, made of botryoidal manganese was located during a site inspection undertaken for CHMP 12847 (Goldfarb and Hill 2014). The first artefact was found in a disturbed surface context on a lowland plain in agricultural land during monitoring of the construction of the freeway; the second artefact was found during a reinspection of this Place for the preparation of CHMP 12847.

Other Places located within 200 metres of the activity area are:

- VAHR 7822-1177 (Summerhill Rd Rail Res.1) is comprised of a single quartz core, which was located during archaeological monitoring of the construction works. The artefact was found on the plain landform, described as undulating land and noted on the site card as being located within agricultural land. No specific information regarding the soil types was available;
- VAHR 7822-0722 (Jackhammer 1) is a small artefact scatter eroding out of the bank of Merri Creek, located approximately 25 m from the activity area. The five artefacts are made of silcrete and quartz;
- VAHR 7822-0730 (SUMMERHILL 5) is an artefact scatter comprised of 27 stone artefacts recorded in 1994. The Place is located on a basalt escarpment, eroding out of the creek bank. The artefacts are made of silcrete and quartz flakes, some with retouch, indicating curation and perhaps use as tools;
- VAHR 7822-0946 (Mt Ridley 1), a scarred tree located on a plain, approximately 150 m from the activity area. The tree is a River Red Gum and three scars including two toe holds were recorded. The site card notes that the scars are possibly natural, although the diagram on the original site card notes the presence of a possible axe mark in the large scar. A site inspection undertaken in 2022 indicates that the scar is approximately 2 m off the ground but makes no further comment on whether the scar is considered to be cultural.
- VAHR 7822-1178 (SUMMERHILL RD RAIL RES 2) is an artefact scatter comprising one to four silcrete stone artefacts recorded within the rail corridor on the plain landform. The Place is located approximately 4 m from the edge of the present activity area.
- VAHR 7899-1176 (CRAIGIEBURN RAIL RES.) is an artefact scatter recorded in the year 2000 comprising between 1-4 silcrete and quartz artefacts including worked and unworked flakes found during monitoring of construction works for the Craigieburn Bypass. The landform is described as undulating land, and as in use as agricultural land;
- VAHR 7822-1391 (CRAIGIEBURN BYPASS 2) a surface artefact scatter recorded in 2002 consisting of 20 silcrete and quartz artefacts across the ground surface of a plain landform. The artefact forms included a microlithic scraper as well as unworked exotic stone;
- VAHR 7822-1392 (CRAIGIEBURN BYPASS 3) an artefact scatter recorded in 2002 consisting of three silcrete flakes identified on the ground surface. The Place was identified during monitoring of environmental sampling works ahead of the construction of the Craigieburn Bypass and is located approximately 60 m east of the activity area on an undulating plain landform and in agricultural land.

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- VAHR 7822-1552 (CRAIGIEBURN RAIL IA 1) is recorded as an artefact scatter comprised of one silcrete flake and one quartz flake, neither of which showed signs of retouch. The Place is located approximately 68 m west of the activity area, on the south side of Merri Creek. The landform is described as being gently inclined and was agricultural land.
- VAHR 7822-1573 (CRAIGIEBURN BYPASS 5) an artefact scatter comprised of one tool, a scraper made on a retouched silcrete flake recorded in 2004, located approximately 168 m east of the activity area on a gently inclined plain. The artefact was recorded during monitoring of the construction works for the Craigieburn Bypass and was therefore found in a disturbed surface context;
- VAHR 7822-1761 (MALCOLM CREEK BANK IA 1) was recorded in 2004 as an artefact scatter. The Place is located approximately 68 m west of the activity area and is comprised of a single quartz blade, located approximately 100 m south of Malcolm Creek on a steep creek bank;
- VAHR 7822-1762 (MALCOLM CREEK BANK IA 2) was recorded in 2004 as an artefact scatter, located 53 m from the activity area. The Place is comprised of two surface artefacts: a single quartz unretouched flake and a retouched silcrete core flake, located 187mm south of Malcolm Creek on a steep creek bank.
- VAHR 7822-3750 (Donnybrook Road 5) is recorded as an artefact scatter comprised of 23 silcrete flakes, cores and angular fragments and one quartz angular fragment. The Place is located on a rise and was identified in the preparation of CHMP 12847 (Goldfarb and Hill 2014) which was prepared for the Amaroo Main Sewer. It is located approximately 150 m north of the present activity area;
- VAHR 7822-4282 (855 Donnybrook Road LDAD) is recorded as a Low Density Artefact Distribution comprised of ten silcrete, quartz and quartzite artefacts. Artefact forms include flakes and angular fragments. The artefacts were located at depths ranging between 100 to 300 mm and were located on a stony rise landform; and

Table 5 shows that stone artefact Places, either isolated artefacts or artefact scatters, account for all but three of the Place component types in the search area and are by far the most prevalent Place type in the region (n=93%). It should also be noted that due to changing conventions for the recording of archaeological Places over time, some of the Places listed as 'artefact scatters' may in fact represent 'isolated artefacts', as early recording forms made no distinction between the two Place types. Furthermore, isolated artefacts are today recorded as a form of LDADs.

A summary of the Aboriginal archaeological Place component types appears in Table 7 and a list of all Places in the search area is shown in Table 8.

Table 8: Summary of Previously Identified Aboriginal Place Types within the Geographic Region

Place Component Type	Quantity	Percentage (%)
Artefact Scatters	62	19
Scarred Trees	7	2
Object Collection	9	3
Low Density Artefact Distribution (LDAD)	243	74

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Place Component Type	Quantity	Percentage (%)
Earth Feature	6	2
Total	**327**	**100**

Table 9: Aboriginal Places within the Geographic Region

Aboriginal Place Number	Aboriginal Place Name	Component Type	Distance to Activity Area (m)
7822-0008	MERRI CK DONNYBROOK	Earth Feature	587.81
7822-0025	LOGIE	Scarred Tree	2409.52
7822-0170	CRAGIEBURN RD 1	Artefact Scatter	702.90
7822-0325	SILVERTON 4	Artefact Scatter	1657.07
		Earth Feature	1657.07
7822-0327	SILVERTON 6	Artefact Scatter	3608.17
7822-0328	SILVERTON 7	Artefact Scatter	3213.99
7822-0383	CRAIGIEBURN GOLF COURSE	Artefact Scatter	2539.96
7822-0656	SUMMERHILL 1	Scarred Tree	613.95
7822-0714	TERRICK TREE	Scarred Tree	733.14
7822-0716	RICK 2	Scarred Tree	187.10
7822-0718	BRIGGS 1	Earth Feature	637.85
7822-0720	BRIGGS 3	Artefact Scatter	544.92
7822-0720	BRIGGS 3	Earth Feature	544.92
7822-0721	BRIGGS 4	Earth Feature	548.96
7822-0722	JACKHAMMER 1	Artefact Scatter	26.60
7822-0726	CRAIGIEBURN RD 6	Artefact Scatter	584.62
7822-0729	SUMMERHILL 4	Artefact Scatter	524.42
7822-0730	SUMMERHILL 5	Artefact Scatter	660.51
7822-0741	BULLOCK CROSSING	Artefact Scatter	259.72
		Earth Feature	259.72
7822-0943	CONFLUENCE 1	Artefact Scatter	598.63
7822-0944	CONFLUENCE 2	Artefact Scatter	695.32
7822-0946	MT RIDLEY 1	Scarred Tree	154.34
7822-0960	SUMMERHILL 1	Artefact Scatter	336.01
7822-1080	PITMAN 1	Artefact Scatter	1847.59
7822-1106	CRAIGIEBURN AMPHITHEATRE IA 1	Artefact Scatter	1859.48
7822-1114	CRAIGIEBURN WETLAND IA 1	Artefact Scatter	2023.02
7822-1176	CRAIGIEBURN RAIL RES.	Artefact Scatter	0.18
7822-1177	SUMMERHILL RD RAIL RES.1	Artefact Scatter	3.84

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7822-1178	SUMMERHILL RD RAIL RES.2	Artefact Scatter	10.31
7822-1179	DONNYBROOK RD RAIL RES.1	Artefact Scatter	644.23
7822-1391	CRAIGIEBURN BYPASS 2	Artefact Scatter	512.38
7822-1392	CRAIGIEBURN BYPASS 3	Artefact Scatter	58.18
7822-1443	NUBRIK 1	Artefact Scatter	601.48
7822-1472	NUBRIK 2	Artefact Scatter	590.62
7822-1473	CRAIGIEBURN BYPASS 4	Artefact Scatter	405.62
7822-1552	CRAIGIEBURN RAIL IA 1	Artefact Scatter	75.18
7822-1573	CRAIGIEBURN BYBASS 5	Artefact Scatter	167.67
7822-1574	CRAIGIEBURN BYPASS 6	Artefact Scatter	0.00
7822-1647	NOTO 1	Artefact Scatter	370.80
7822-1761	MALCOLM CREEK BANK IA 1	Artefact Scatter	73.02
7822-1762	MALCOLM CREEK BANK IA 2	Artefact Scatter	56.20
7822-2201	MT RIDLEY ROAD 1	Artefact Scatter	601.00
7822-2202	MT RIDLEY ROAD 2	Artefact Scatter	876.04
7822-2242	M/CREEK 1	Artefact Scatter	1575.86
7822-2243	M/CREEK 2	Artefact Scatter	1878.61
7822-2244	M/CREEK 3	Artefact Scatter	1751.68
7822-2245	M/CREEK4	Artefact Scatter	1580.67
7822-2246	M/CREEK 5	Artefact Scatter	1903.68
7822-2259	MT RIDLEY RESERVE 1	Artefact Scatter	128.85
7822-2276	MALCOLM CREEK SEWER 1	Artefact Scatter	570.42
		Object Collection	570.42
7822-2277	MALCOLM CREEK 6	Scarred Tree	1932.63
7822-2278	MALCOLM CREEK 7	Scarred Tree	1890.64
7822-2281	M/CREEK 8	Object Collection	1712.05
		Artefact Scatter	1712.05
7822-2298	MALCOLM CREEK 9	Artefact Scatter	2263.17
7822-2322	POTTER ST 1	Object Collection	731.76
7822-2339	MALCOLM CREEK 1	Artefact Scatter	293.17
		Object Collection	307.61
7822-2340	MALCOLM CREEK 2	Artefact Scatter	272.77
		Object Collection	307.61
7822-2341	MALCOLM CREEK 3	Artefact Scatter	329.36
		Object Collection	307.61
7822-2342	MALCOLM CREEK 4	Artefact Scatter	382.55
		Object Collection	307.61
7822-2422	AITKEN CREEK NORTH 1	Artefact Scatter	2914.95

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		Object Collection	2914.95
7822-2860	Malcolm Creek 10	Artefact Scatter	2037.26
7822-2861	Aitken Creek Tributary 5	Artefact Scatter	2744.93
7822-2934	45 Donnybrook Road IA 1	Artefact Scatter	2297.96
7822-3518	Mt Ridley Road 3	Low Density Artefact Distribution	2044.56
7822-3596	Donnybrook 5	Low Density Artefact Distribution	1491.64
7822-3732	Donnybrook Road LDAD 3	Low Density Artefact Distribution	200.12
7822-3750	Donnybrook Road 5	Artefact Scatter	204.96
7822-3756	875 Donnybrook Road, Donnybrook 1	Low Density Artefact Distribution	783.37
7822-3757	875 Donnybrook Road, Donnybrook 2	Artefact Scatter	763.31
7822-3758	875 Donnybrook Road, Donnybrook 3	Artefact Scatter	1078.95
7822-3874	Merri Creek LDAD	Low Density Artefact Distribution	674.44
7822-3889	90 English Street, Donnybrook, AS 1	Artefact Scatter	709.78
7822-3890	English Street, Donnybrook, LDAD 1	Low Density Artefact Distribution	671.28
7822-3911	Craigieburn Hub isolated surface artefact	Low Density Artefact Distribution	695.45
7822-3913	Craigieburn Hub LDAD	Low Density Artefact Distribution	687.24
7822-3933	English Street, Donnybrook, LDAD 2	Low Density Artefact Distribution	790.17
7822-4212	55 Springs Road	Artefact Scatter	817.77
7822-4213	805 Donnybrook Road LDAD	Low Density Artefact Distribution	568.14
7822-4282	855 Donnybrook Road LDAD	Low Density Artefact Distribution	236.50
7822-4346	910 Donnybrook Rd LDAD	Low Density Artefact Distribution	764.69
7822-4347	910 Donnybrook Rd	Artefact Scatter	757.72
7822-4391	Craigieburn Hub artefact scatter	Artefact Scatter	695.32
7822-4414	650 Hume Highway Craigieburn	Low Density Artefact Distribution	392.48
7822-4462	750 Donnybrook Rd East LDAD	Low Density Artefact Distribution	710.26
7822-4474	Upper Malcolm Creek LDAD	Low Density Artefact Distribution	3450.89
7822-4492	750 Donnybrook Rd East AS	Artefact Scatter	878.80

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7822-4493	750 Donnybrook Rd LDAD	Low Density Artefact Distribution	773.91
7822-4525	Hayes Hill LDAD	Low Density Artefact Distribution	1207.39
7822-4537	English Street, Donnybrook, LDAD 3	Low Density Artefact Distribution	617.33
7822-4691	Galgi Ngarrk Craigieburn Grassland Reserve LDAD1	Low Density Artefact Distribution	801.52
7822-4708	Galgi Ngarrk Craigieburn Grassland Reserve AS1	Artefact Scatter	730.37
7822-4767	835 Donnybrook Road AS1	Artefact Scatter	241.06
7822-4847	Merri Creek LDAD 4	Low Density Artefact Distribution	508.33
7822-4884	50 Kinloch Court IA	Low Density Artefact Distribution	157.93
7822-4946	110 Springs Road, Donnybrook - LDAD	Low Density Artefact Distribution	679.17
7822-4954	110 Springs Road, Donnybrook AS 1	Artefact Scatter	668.01
7923-0418	Merri Merri Rail	Low Density Artefact Distribution	644.58

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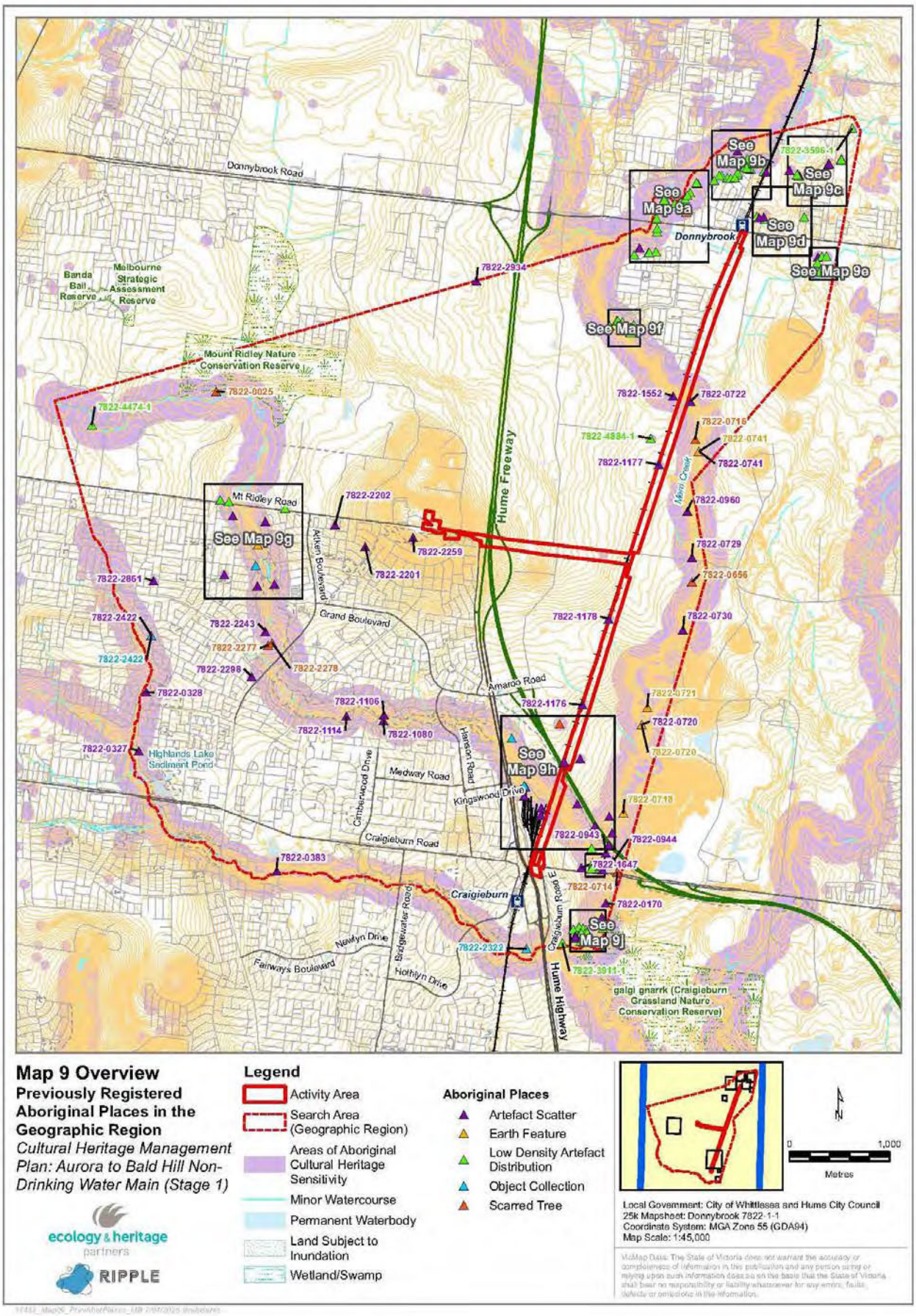

Map 9 Overview
Previously Registered Aboriginal Places in the Geographic Region
Cultural Heritage Management Plan: Aurora to Bald Hill Non-Drinking Water Main (Stage 1)

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Legend
- Activity Area
- Search Area (Geographic Region)
- Areas of Aboriginal Cultural Heritage Sensitivity
- Minor Watercourse
- Permanent Waterbody
- Land Subject to Inundation
- Wetland/Swamp

Aboriginal Places
- Artefact Scatter
- Earth Feature
- Low Density Artefact Distribution
- Object Collection
- Scarred Tree

N
0 1,000
Metres

Local Government: City of Whittlesea and Hume City Council
25k Mapsheet: Donnybrook 7822-1-1
Coordinate System: MGA Zone 55 (GDA94)
Map Scale: 1:45,000

VicMap Data: The State of Victoria does not warrant the accuracy or completeness of information in this publication and any person using or relying upon such information does so on the basis that the State of Victoria shall bear no responsibility or liability whatsoever for any errors, faults, defects or omissions in the information.

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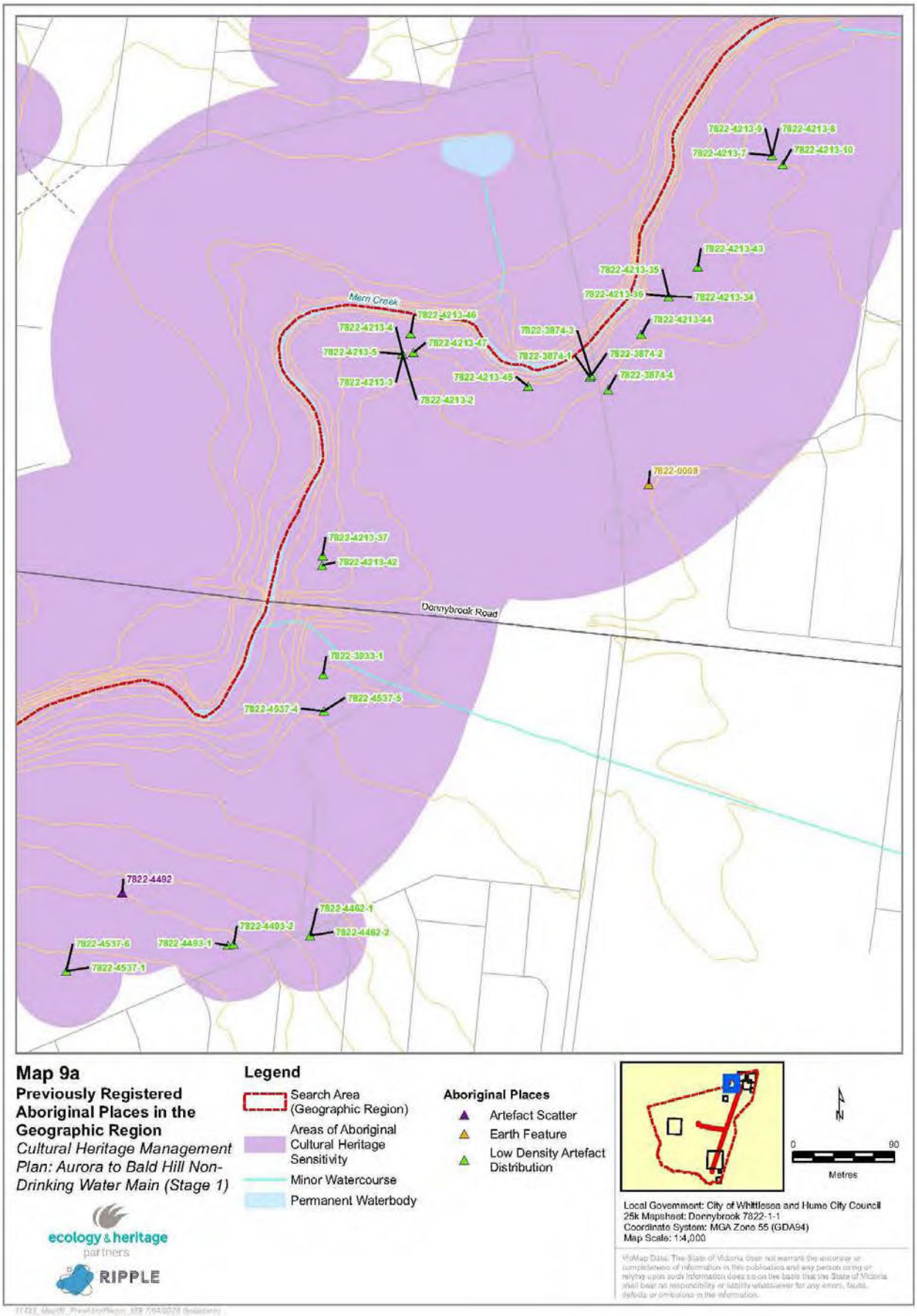

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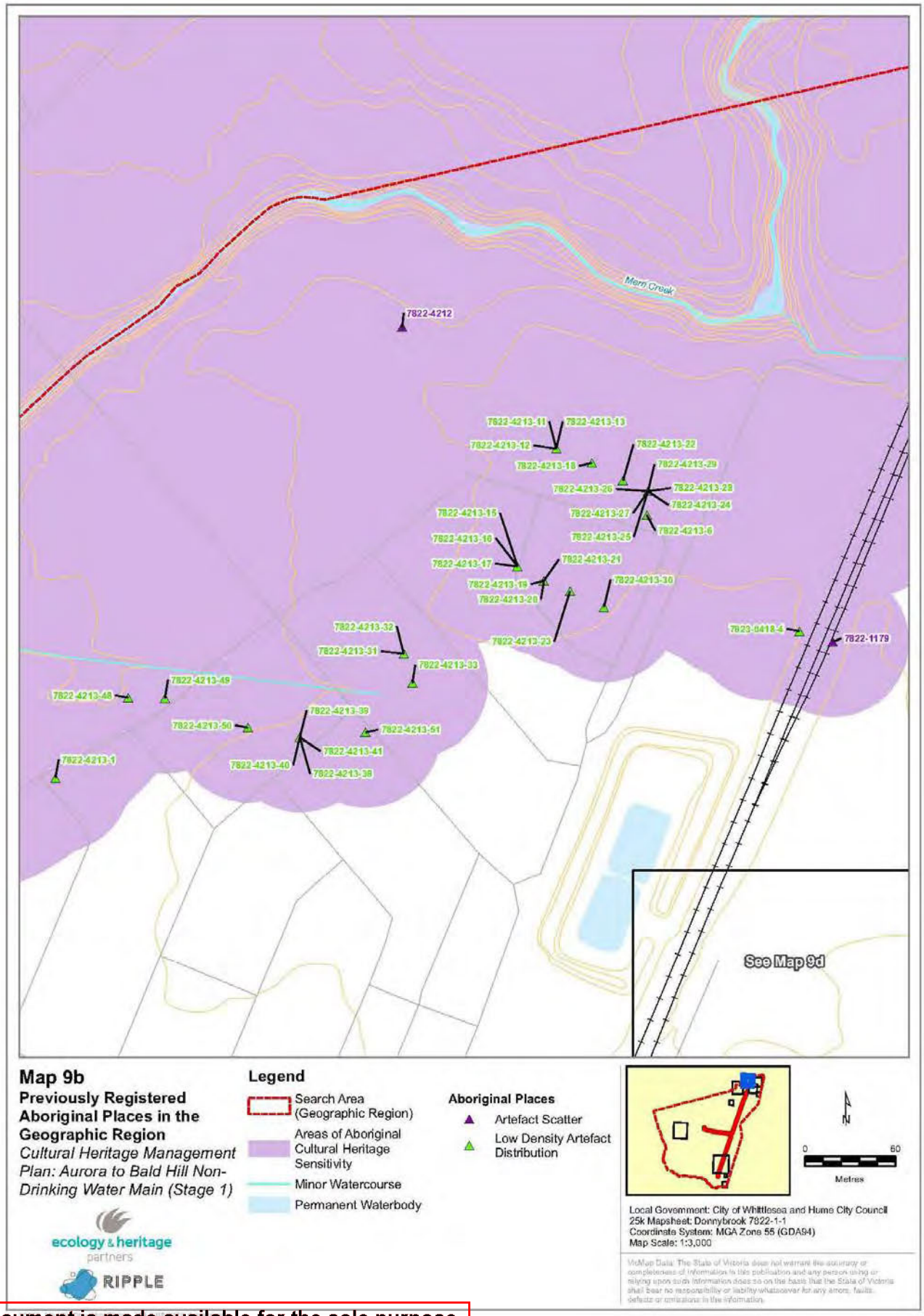

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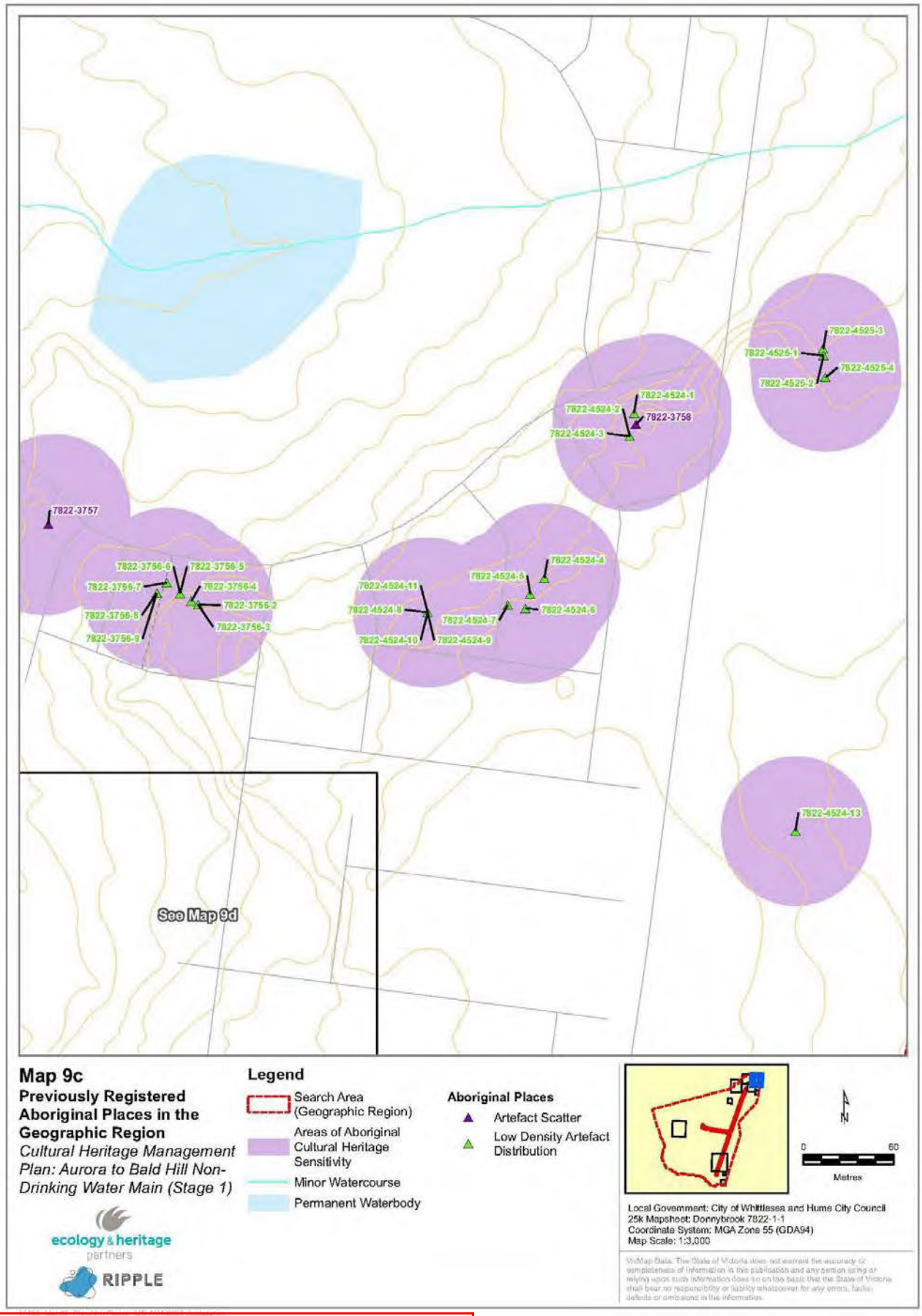

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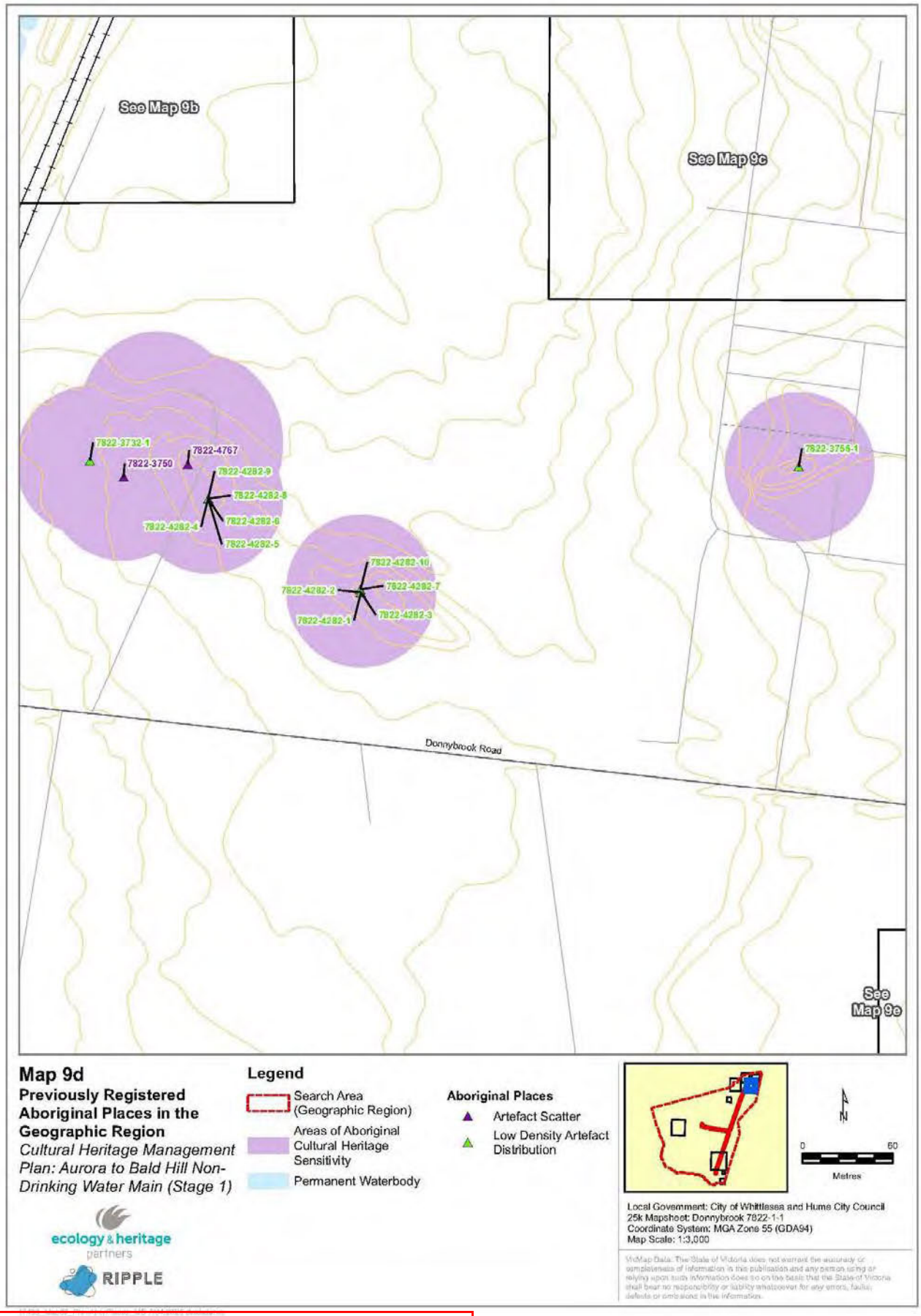

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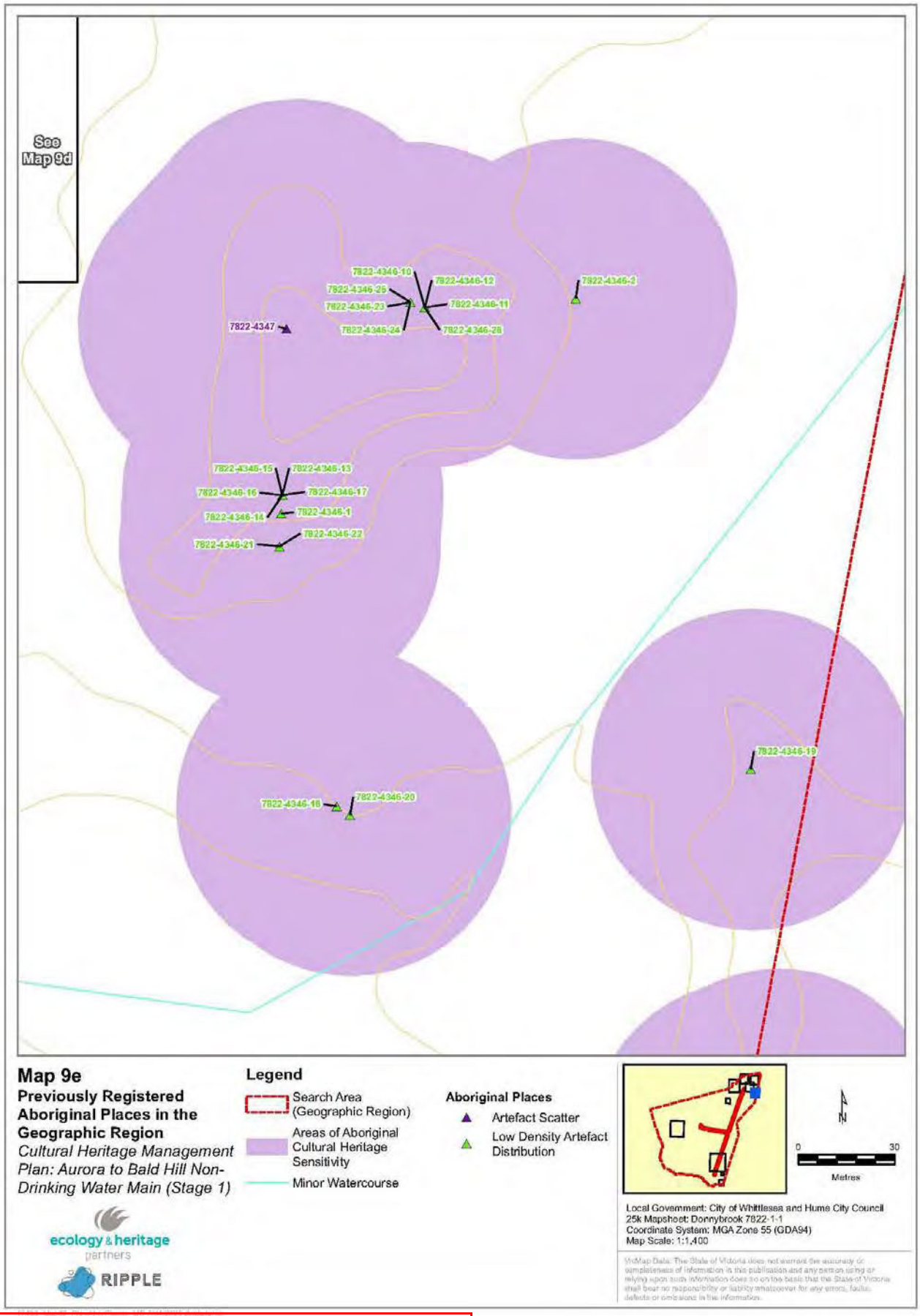

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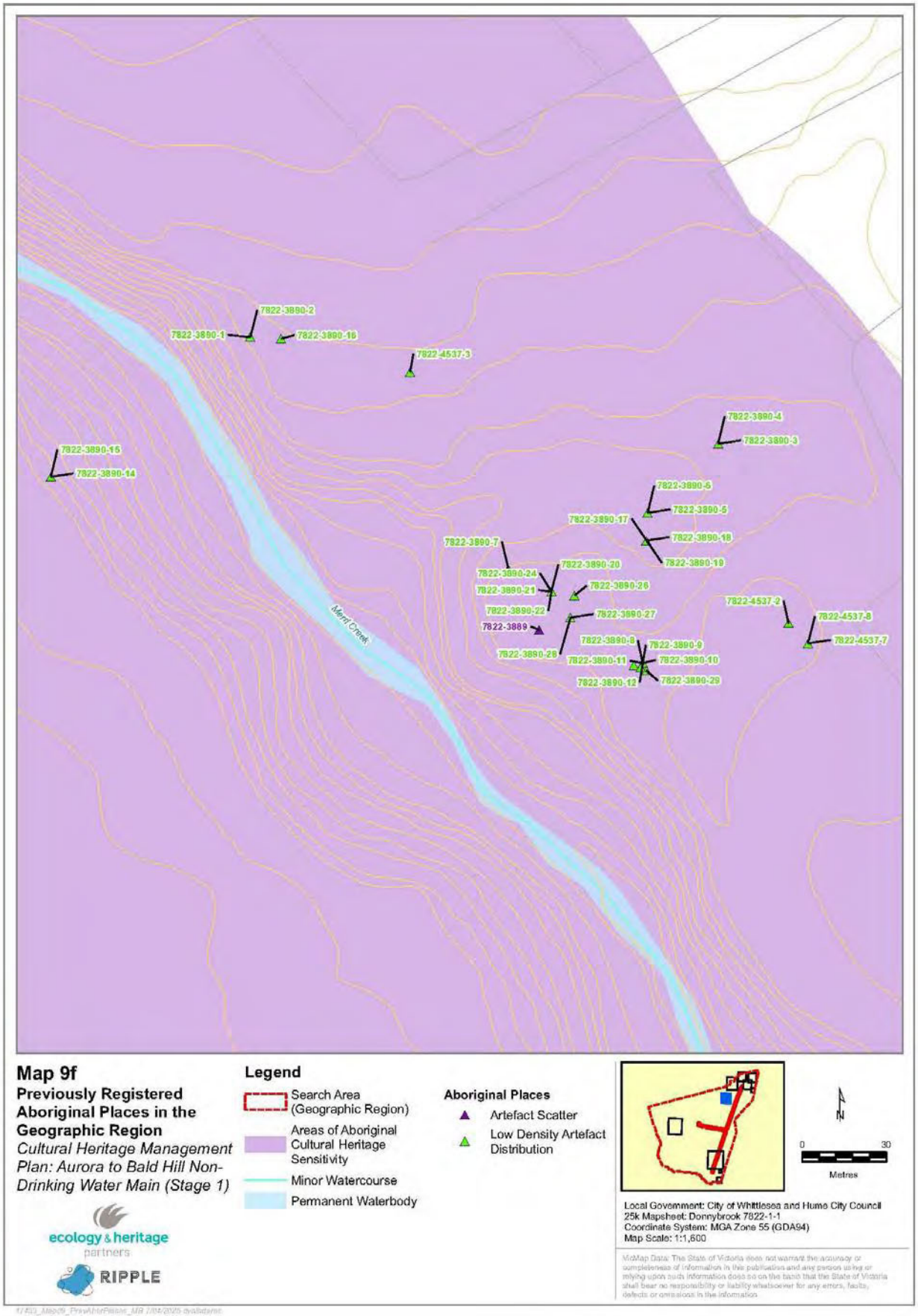

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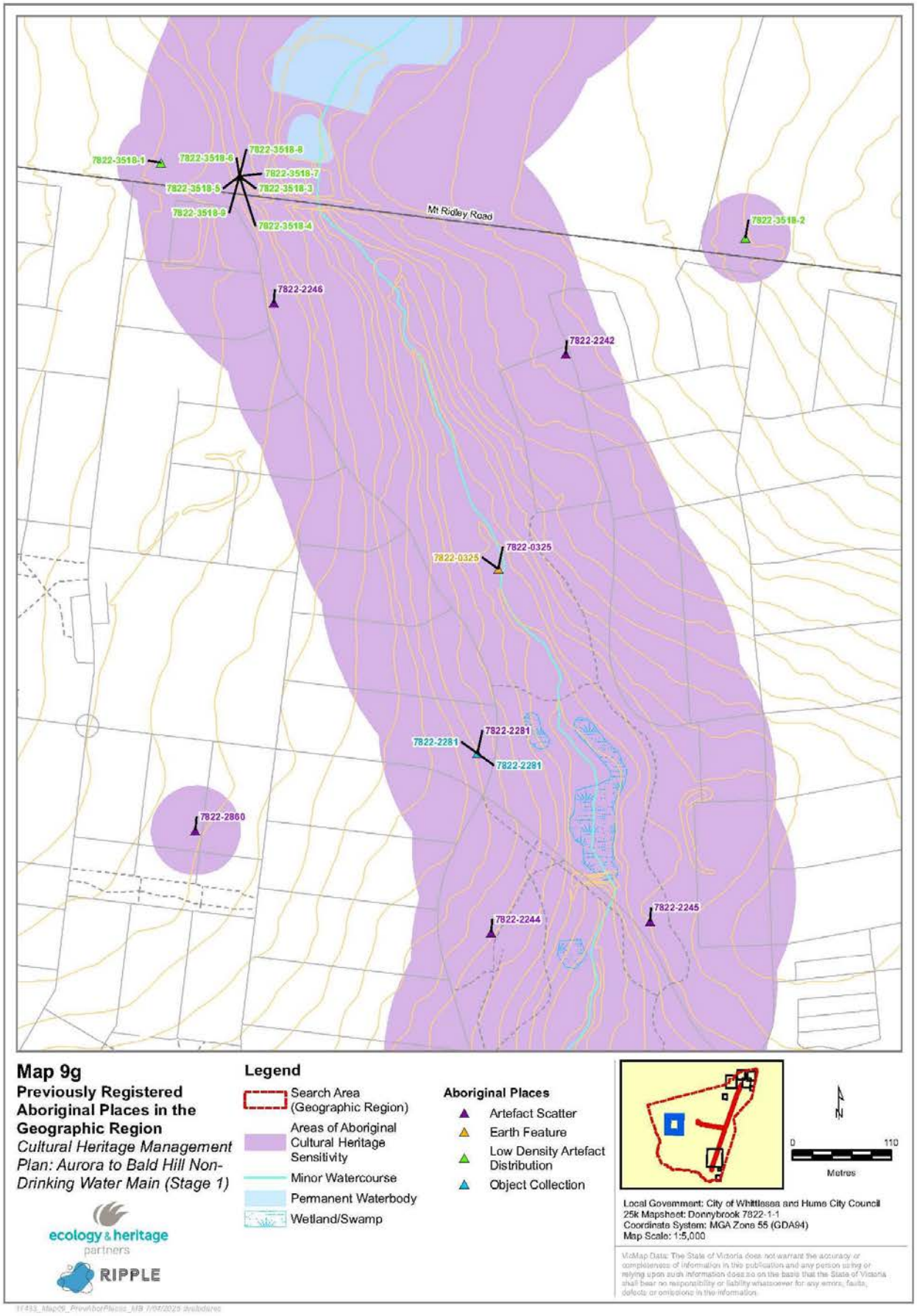

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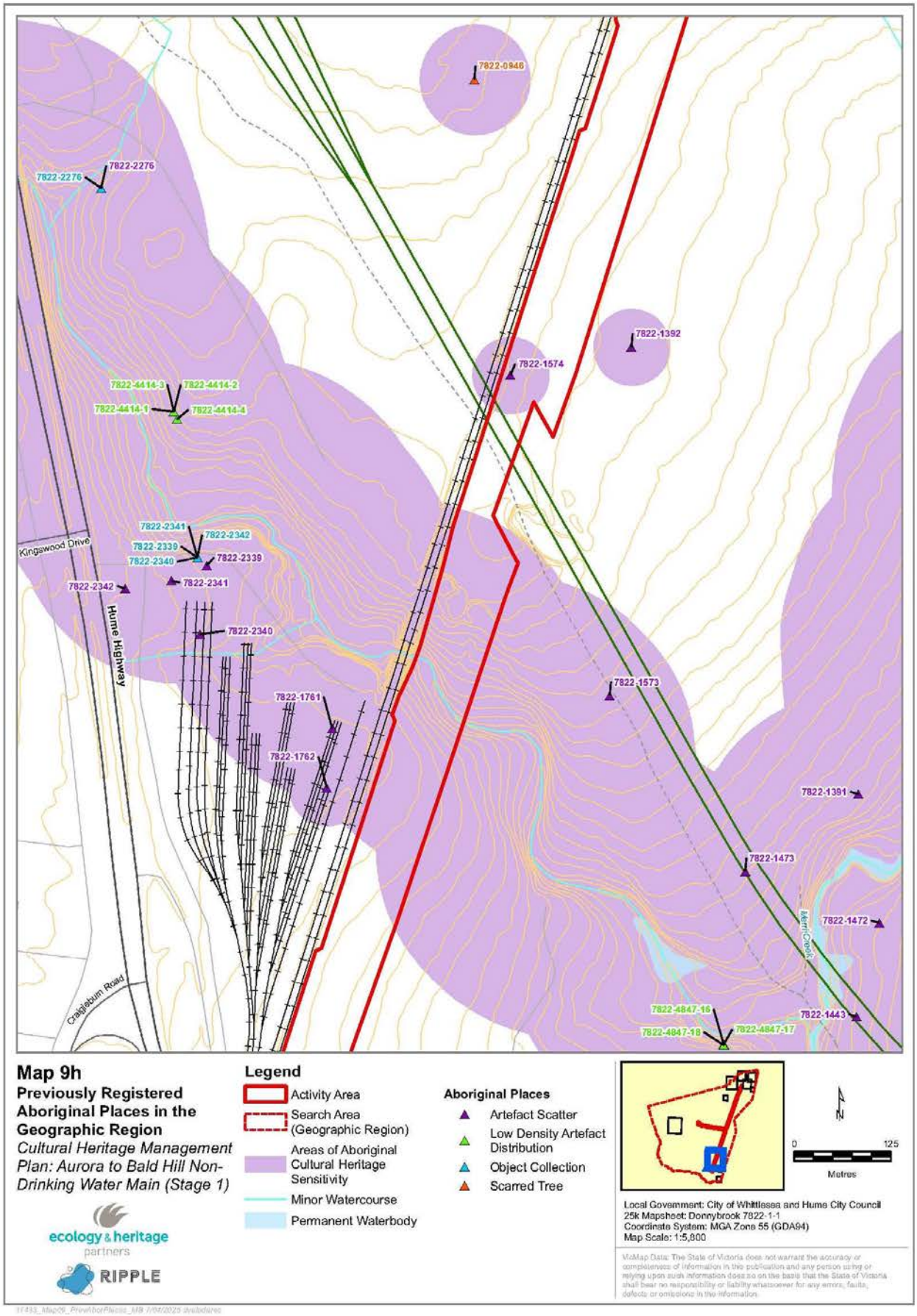

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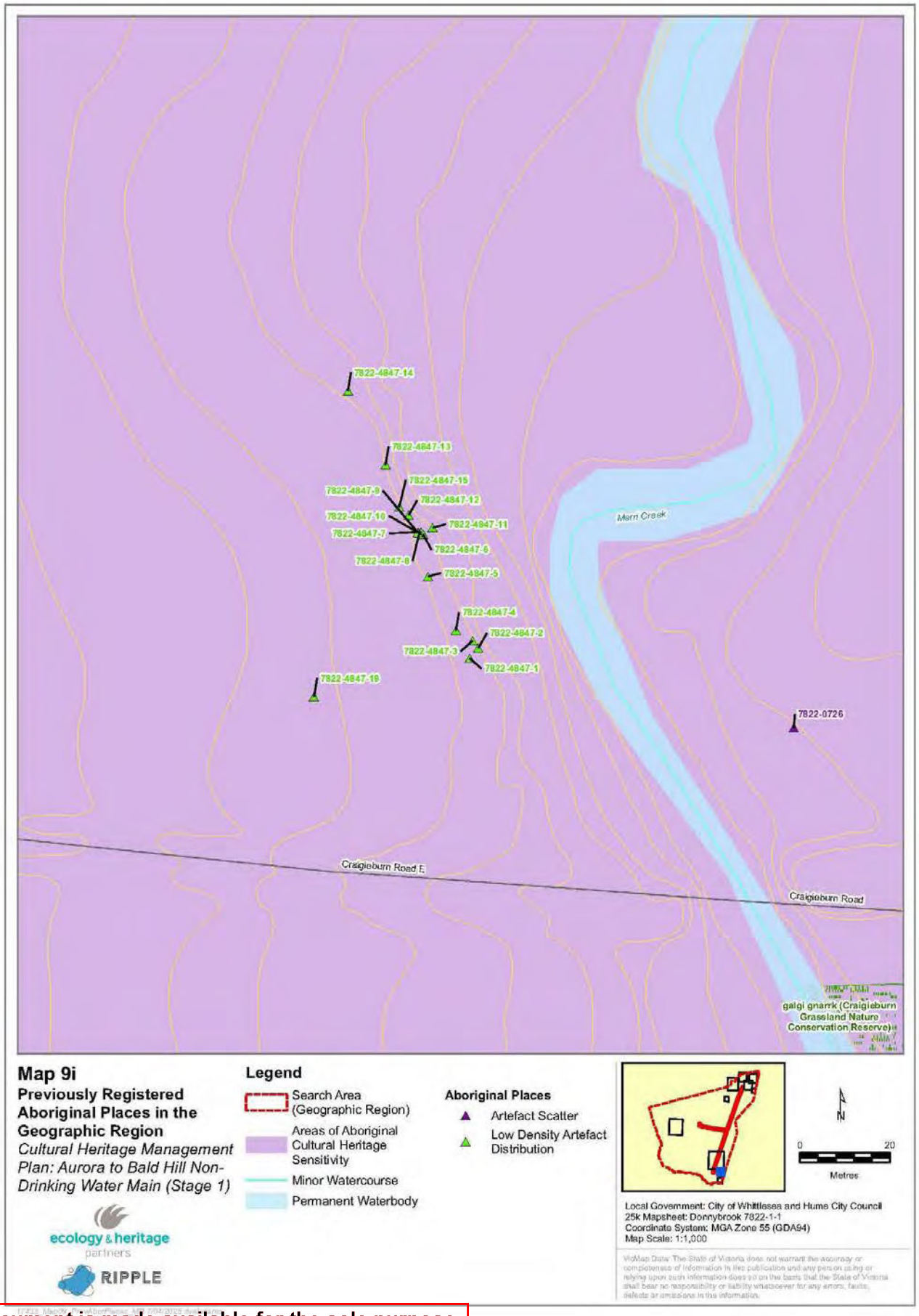

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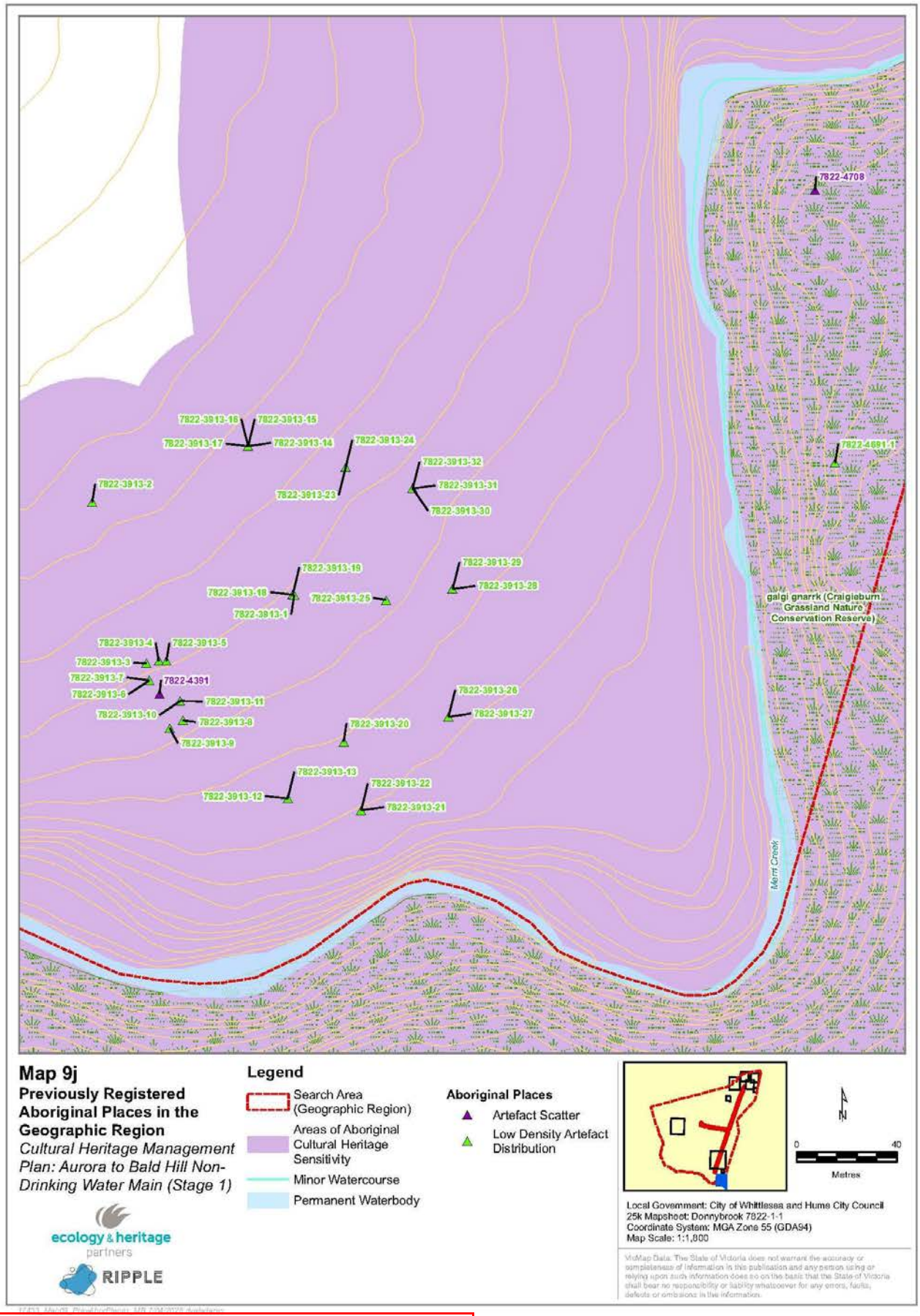

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7.5 Previous Archaeological Investigations

Localised and regional archaeological investigations have established the general character of Aboriginal Places located within the same geographic region as the activity area. This information, together with an environmental context, histories of land use and, historical and ethnohistorical sources, can be used to form the basis for a Place prediction statement.

A search of the VAHR for archaeological reports and surveys within the geographic region returned a total of 119 reports. These included CHMPs and salvage reports, Heritage Management, surveys and test excavations and other desktop-based investigations. These reports are directly relevant in helping to understand the likelihood of Aboriginal cultural heritage being present within the present activity area and have thus been summarised first. Summaries of other archaeological reports relevant to the activity area appear below. A summary of archaeological reports relevant to the geographical region of the activity area appears below (Table 10).

Athanasiadis and Tucker (2008) completed a complex CHMP (#10500) assessment for the Mt Ridley Conservation Reserve, in which a part of the activity area is located. The desktop assessment stated that the activity area was within 200 m of a waterway, making the site likely to have Aboriginal cultural heritage present; however, there were no registered Aboriginal Places within the activity area. A search of the VAHR found four Aboriginal Places within 1.2 kilometres to the west of this activity area, all registered as artefact scatters. Two standard assessments were conducted on the same area of land, with the first survey conducted on 13 June 2007 with 70% ground surface visibility within Mt Ridley Reserve; no Aboriginal cultural heritage was located during this survey. The second survey was conducted on 19 March 2008 with 10-20% visibility due to grass cover and dense plantings. Both surveys utilised an opportunistic survey strategy and no Aboriginal cultural heritage was found.

The complex assessment consisted of 15 1 x 1 m test pits. One Aboriginal Place was recorded as VAHR 7822-2259 (Mt Ridley Reserve 1); this Place comprises an isolated silcrete core, located at a depth of 100 – 200 mm in a context of brown silty topsoil containing small basalt rocks which overlay compacted blocky dark brown clay. The maximum depth of this TP was 200mm. The soil stratigraphy consisted with dark brown loamy silt present between 0-100 mm, with compact brown blocky clay from 100 mm to 200 mm. No specific management measures were recommended to avoid harm to VAHR 7822-2259. No standard assessment results map was included in the CHMP; however, the complex assessment results map is attached at Appendix 10.

Goldfarb and Hill (2014) conducted a complex CHMP (#12847) assessment for Yarra Valley Water for the construction of the Amaroo Main Sewer. The activity for this CHMP runs through the present activity area between Donnybrook Road and Craigieburn Road East. The desktop assessment found that due to the proximity to Merri Creek and Malcolm Creek, the activity area was likely to contain Aboriginal Places as a result of the Aboriginal occupation of the area. A search of VAHR revealed five previously recorded Aboriginal Places within the activity area: VAHR 7822-1574 (Craigieburn Bypass 6), VAHR 7822-1176 (Craigieburn Rail Res), VAHR 7822-1177 (Summerhill Rd Rail Res 1), VAHR 7822-1178 (Summerhill Rd Rail Res.2), and VAHR 7822-0722 (Jackhammer 1) within 50 metres of the activity area, and another 7 within two kilometres.

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Based on the presence of these previously recorded Places and the proximity to two waterways, the desktop assessment concluded that there was a high potential for additional Aboriginal cultural heritage to be present within the activity area. This predictive statement noted that LDADs were the most likely Place type to occur in depths ranging from 0 to 360 mm, and that any stone artefact Places would most likely contain silcrete and quartz artefacts. It was thought that scarred trees were another Place type likely to occur within 250 metres of creeks. It was also noted that any artefacts were unlikely to be in situ due to past land use. Geotechnical bore logs indicate that the topsoil either consists of silty clay or clay ranging to a maximum depth of 200 mm to 400 mm, with basalt being located directly below the clay.

A standard assessment was undertaken, in which 71% of the activity area was surveyed, with the total effective survey coverage ((Survey Coverage Area [m²] x Visibility x Exposure = Effective Coverage [m²]) being low at 11.01%. There was dense vegetation which impeded visibility, with overall ground visibility totalling 26.67%. VAHR 7822-3732 (Donnybrook Road LDAD 3), comprising of an isolated stone artefact, was recorded as new Aboriginal Place during the standard assessment; in addition, a second artefact thought to be associated with VAHR 7822-1574 (Craigieburn Bypass 6) was recorded on the surface. Thirteen areas of potential Aboriginal sensitivity were identified. The results of the standard assessment undertaken for CHMP 12847 are attached at Appendix 11.

Due to these findings of the standard assessment, a complex assessment was undertaken. Eleven Test Pits, five Shovel Test Pits, and 549 Shovel Probes were conducted during the assessment. The eleven Test Pits established stratigraphy which showed Context 1 as comprising of brown, compact, dry humic silt containing inclusions of basalt rubble and historical material such as glass with depths ranging from 0 – 200 mm. Beneath this was Context 2, described as brown, compact silty clay and containing the same inclusions (i.e., basalt rubble and glass). Artefacts were located in Context 2; beneath Context 2, the sterile base layer was described as brown and compact silty clay base with basalt boulders.

The STPs did not deviate from the stratigraphy established by the TPs. The maximum depth reached in any excavation unit was 400 mm. The soil deposits were generally shallow, indicating that any artefacts found would not be in situ due to the depth being within the plough zone. No new Aboriginal Places were recorded, however a previously registered place at VAHR 7822-3750 (Donnybrook Road 5) was found to have 18 subsurface components consisting of silcrete flakes, tools and cores found in a soil heap that had been deposited from a backhoe scrape. The complex assessment did not corroborate what was expected in the desktop and standard assessment as a large number of Aboriginal Places was not discovered as anticipated (Goldfarb and Hill 2014). The results of the complex assessment undertaken for CHMP 12847 are attached at Appendix 11.

Management conditions include work area inspections at creek crossing and laydown areas, cultural heritage awareness training, and artefact repatriation. No further management conditions to prevent harm to Aboriginal Places were required.

Branda-Pawlaczyk et al. (2024) prepared a complex CHMP (#18833) for a waste to energy plant at 510 Summerhill Road. While the proposed plant is located outside of the present activity, upgrades to Summerhill Road were planned to be undertaken to facilitate access and support heavy vehicle movements; a portion of Summerhill Road to be upgraded overlaps with the present activity area at the crossing of the railway line. The desktop assessment found that the activity area is located within

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50 m of three registered cultural heritage Places: VAHR 7822-0728 (Summerhill 3), VAHR 7822-0729 (Summerhill 4) and VAHR 7822-4389 (Donnybrook Quarry AS 3). The desktop assessment found 399 registered Aboriginal Places consisting of 1,232 Place components within the geographic region. There were six Place component types recorded in the geographic region: artefact scatters (n=272), earth features (n=9), Low Density Artefact Distributions (n=921), scarred trees (n=24), a shell midden (n=1) and stone features (n=5). This search also showed that there was nine Places within 200 m of the activity area.

The desktop assessment concluded that it is reasonably possible that Aboriginal Cultural Heritage would be present within this activity area due to the presence of the waterways, hills and stony rises within the region. The Place predictive statement noted that Low Density Artefact Distributions were the most likely type of Place to be found in this activity area. Other Place types considered likely to appear were artefact scatters, scarred trees, and stony rises or mounds.

A standard assessment was undertaken, in which 53.09% of the activity area was surveyed. The effectiveness of the survey was affected by livestock and bogged areas. The total effective survey coverage was 16.21%, with the Ground Surface Visibility (GSV) of the area being affected by roads and road reserves resulting is some areas of 0% GSV. The assessment located three landforms present; the volcanic plain, stony rises and creek line. The results of the standard assessment concluded with no Aboriginal Places found.

A complex assessment was then undertaken, comprising of six 1 x 1 m Test Pits (TPs), 60 5 m x 1 m Mechanical Test Pits (MTPs) and 24 0.5 m x 0.5 m Shovel Test Pits (STPs) were conducted during the assessment. The six Test Pits established stratigraphy on stony rises and for each entry/exit pit near Merri Creek, which showed the stony rises to contain a duplex character of dark reddish-brown silt within TP01 and TP02, and blueish brown fine clay identified within TP03 and TP04. TP04 included a second context which consisted of dark blueish brown fine clay with large basalt rocks. The depths of these TPs ranged from 140 to 680 mm. The remaining TP was excavated to establish the stratigraphy of the creek line; this consisted of a medium greyish brown silty clay overlying a medium brownish black clay, with the TP being located in the road reserve containing roadside base, basalt and glass inclusions. No surface artefacts were found during the complex assessment. STP23 was excavated within the present activity area. This STP reached a depth of 130 mm and was comprised of a disturbed context of mid greyish-brown moist clay which contained inclusions of basalt and railway ballast. No Aboriginal cultural heritage was contained in this STP.

No new Aboriginal Places were recorded, and no Aboriginal Cultural heritage was found. This lack can largely be attributed to the previous ground disturbance and past agricultural practices in the area. Management conditions include work area inspections at service trenches and for each stage of topsoil stripping. Cultural heritage awareness training and fencing of the sensitive landform of stony rises during ground disturbing activities were also required.

Muir (1998) completed an archaeological investigation (report #1139) of five possible alignment options for the Hume Freeway between the Western Ring Road and Donnybrook Road and incorporating the present activity area. A field survey resulted in the registration of 13 new Aboriginal Places: VAHR 7822-0932 – 7822-0941, VAHR 7822-0946 and VAHR 7822-0959 – 7822-0960. Subsurface testing was undertaken with 35 STPs being excavated. Three subsurface artefacts were found in three

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different STPs and, in accordance with the standards of the time, were registered as three artefact scatters: VAHR 7822-0943 – 7822-0945. VAHR 7822-0943 is a single quartz flake located at a depth between 100 – 200 mm and VAHR 7822-0944 is a silcrete flake located at a depth of 200 – 300 mm. These two Aboriginal Places are located near Merri Creek. It was noted that soil profiles were a soft topsoil which overlay a compact clay; however, further away from the creek, sandy soil deposits were encountered.

The report made recommendations in regard to the selection of the alignment in relation solely to Aboriginal cultural heritage in an effort to impact the least number of Aboriginal Places.

Ellender (1997) undertook an archaeological survey (report #1109) of the middle Merri Creek on behalf of the Merri Creek Management Committee. The project was conducted with funding from the National Estate Grants Program to carry out a project which would include an archaeological survey of the creek, archival research into Wurundjeri history, a limited oral history program and the production of educational materials including a book (Ellender 1997). The archaeological survey was to be conducted north of Craigieburn Road as far north as Hernes Swamp, north-east of Beveridge. The survey utilised a model generated by Hall's 1989 survey of the lower reaches of the Merri Creek (Hall 1989) which predicted that:

- in situ sites would be rare;
- artefact scatters would be low density;
- scarred trees would be made on Red Gums;
- GSV would be low;
- the locations of base camps would be difficult to identify; stone was probably traded to the area; and
- Places would vary in density dependent on whether they were located on high promontories and their proximity to water.

Ellender's survey used the same Survey Units of the creek easement, native grasslands and hills. A sampling methodology was adopted on each of these landform units.

Poor GSV was encountered along the creek margins and in the native grasslands, especially those along Cooper Street; however, the Craigieburn grasslands afforded improved GSV as a result of stock grazing. Despite the fact that few trees were noted in either of these grasslands, scarred trees were recorded in the Craigieburn grasslands at some distance from the creek. Ellender (1997: 37) noted 'Substantial sites were mostly observed close to the edge of the escarpment'; it is assumed that this statement refers to artefact scatters.

As a result of the survey, 35 new places were identified: 17 scatters of stone artefacts, 15 scarred trees and three small sites containing fewer than four artefacts. All but one of the of these were within 20 m of the water. These artefacts mostly consisted of silcrete and quartz, with basalt artefacts being uncommon alongside the rare chert, quartzite and glass finds. No subsurface testing was undertaken for this assessment. Detail regarding the Places found during this assessment that are within 200 m of the present activity area, VAHR 7822-0722 (Jackhammer 1) and VAHR 7822-0730 (SUMMERHILL 5) are presented above in Section 7.4.1.

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Patterson (2005) conducted an archaeological and heritage desktop study (#3015) of the Kalkallo Sewerage Works. The study area of this report intersects with the activity area along the railway. The desktop study revealed that there were 120 registered Aboriginal Places within two kilometres of the study area, many of which were recorded in proximity to waterways including Merri Creek, Malcolm Creek, Aitken Creek and their tributaries. The large number of registered Aboriginal Places within the geographic region indicated that there was high potential for Aboriginal Places to be located within the study area, especially near the confluence of Merri and Malcolm Creek. The report assessed five options for the route of the proposed sewer and recommended that a detailed field assessment involving intense pedestrian survey, is further required to provide a proper assessment of Aboriginal Places that may be present in the study area.

Roberts et al. (2023) prepared a cultural heritage management plan (#16771) for a Non-Drinkable Water Line in an area that intersects with a northern portion of the observed activity area. This report has been amended three times, with the latest being completed on 28 August 2023. The amendments were undertaken to incorporate adjustment of the pipeline length, removal of a lay down area and the modification of an access retrieval shaft. No Aboriginal Places were identified within the activity area. The land within the respective activity area had been used previously for sporting, agriculture, and as road reserves. Despite no Places being identified, the proximity of the activity area to Merri Creek indicated that the likelihood of encountering Aboriginal Cultural Heritage was low to medium; therefore a standard assessment was undertaken. This ground survey was affected by a low GSV resulting in 10% of the activity area being surveyed, with an effective survey coverage of 8.5%. Due to poor ground surface visibility, it was not possible to identify the extent, nature and significance of the Aboriginal cultural heritage in the activity area and a complex assessment was then undertaken.

The complex assessment consisted of three 1 x 1m Test Pits and 28 50 x 50 cm Shovel Test Pits; four STPs (11, 12, 13 and 31) were expanded to become 1 m x 1 m TPs due to Aboriginal cultural heritage being found. A total of 76 Radial Test Pits (RTPs) were excavated define the extent of Aboriginal cultural material found in TPO1, TPO2, STP11, STP12, STP13 and STP31. Four Aboriginal Places - VAHR 7822-4462 (750 Donnybrook Rd East LDAD), VAHR 7822-4494 (Kalkallo Reserve LDAD), VAHR 7822-4492 (750 Donnybrook Rd East AS) and VAHR 7822-4493 (750 Donnybrook Rd LDAD) were registered as a result of the assessment. The subsurface testing programme identified 37 Aboriginal flaked silcrete artefacts. Most of these artefacts were found in the grass root layer (0-100 mm), but some were found at 200 mm depth. VAHR 7822-4494 and VAHR 7822-4492 contained subsurface artefact scatters, while VAHR 7822-446) and VAHR 7822-4493 contain only surface artefacts.

Stanin (2008) prepared a cultural heritage management plan (#10346) for the construction of the Merrifield temporary outfall sewer and pump station, which followed the alignment of the Hume Highway, overlapping with the present activity area at Mt Ridley Road. The desktop assessment of the CHMP 10346 found that no Aboriginal cultural heritage Places had been registered within the activity area despite numerous previous archaeological assessments. The activity area was generally considered sensitive for Aboriginal archaeological Places due to the proximity of Merri Creek. During the standard assessment, no Aboriginal cultural heritage was identified during the pedestrian ground survey. Stanin declared a low to medium probability that Aboriginal cultural heritage would be present in areas near Malcolm Creek. Further assessment was not required as the extent, nature and significance of the Aboriginal cultural heritage was determined to have no further research value and

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the activity area was representative of local geology and landforms, with other examples subject to less prior ground disturbance, with potential for more intact Aboriginal archaeological Places being located outside of the activity area.

Table 10 presents a selection of other archaeological investigations which have been undertaken in the geographic region on similar landforms or for activities similar in nature to the proposed NDW main.

Table 10: Summary of other archaeological reports in the geographic region.

Author, Date, Report #	Description and Location	Results
du Cros & Rhodes 1998 # 1320.	Aboriginal archaeological sensitivities study of the water ways and floodplains greater Melbourne	Overview assessment of waterways and floodplain areas across greater Melbourne about their sensitivity for Aboriginal cultural material. The report found that waterways with little cultural heritage currently registered may be because of lack of survey work.
Schell & Long 2006	Aboriginal desktop assessment for the Melbourne 2030 project	The study assesses the distribution of Aboriginal archaeological sites, based on known and potential site locations, with a view to establishing their implications for future growth in the Hume LGA. It was found that artefact scatters in particular occur in higher numbers and densities within confluences of creeks, namely Merri Creek. It was determined that plains in the northern half of the Hume LGA appear to have sustained far less disturbance from intensive agriculture and urbanisation.
Kaskadanis & Hamdorf 2017	Cultural Heritage Management Plan	A complex CHMP was prepared for the installation of AusNet Electricity services in Donnybrook Road adjacent to the northern extent of the present activity area. The desktop assessment concluded that Places such as artefact scatters, LDADs, and scarred trees were the most likely to occur in the activity area; however, the area had been subject to previous disturbance. A standard assessment was conducted because of the possibility of Aboriginal cultural heritage in the activity area. No Aboriginal cultural heritage was identified during the standard assessment as the area was confirmed to be substantially disturbed on the surface and by the installation of subsurface utilities. A complex assessment was determined necessary due to the inability to determine the extent of extent, nature, and significance through the standard assessment. The complex assessment was conducted with two 1 x 1 m TPs and transects of Shovel Test Pits (STPs) at a spacing of 25 m. No Aboriginal cultural heritage was recorded as a result of the complex assessment.

7.6 Aboriginal Archaeological Place Prediction Statement

The following Place prediction statement[2] has been formulated from the review of previous assessments. The statement presented is based on a Place type approach.

[2] The term 'site prediction statement' is sometimes referred to as 'site prediction model'. Ecology and Heritage Partners Pty Ltd prefers the term 'statement' as it is more accurate; 'statistical modelling' is a rigorous and comprehensive process using empirical data.

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The review of the previously recorded Aboriginal archaeological Places and previous archaeological investigations within the search area indicates that the Place types most likely[3] to occur in the activity area are stone artefact scatters and LDADs. Place types considered unlikely to occur in the activity area are shell middens, mounds, quarries, stone arrangements and Aboriginal burials.

Further information regarding Aboriginal Place types can be found on the First Peoples – State Relations website (FP-SR 2024)

Stone Artefact Scatters are considered likely to occur in the activity area. One artefact scatter has been previously recorded in the activity area: VAHR 7822-1574 (Craigieburn Bypass 6).

Low Density Artefact Distributions (LDADs) are considered likely to occur in the activity area. Nearby stone artefact Places that have been recorded as artefact scatters near the activity area would be recorded as LDADs by current standards (FP-SR 2014).

Scarred Trees are considered unlikely to occur in the activity area. The activity area has been previously surveyed and none were recorded at that time (Goldfarb and Hill 2014).

Shell Middens are considered unlikely to occur in the activity area. The activity area has been previously surveyed and none were recorded at that time (Goldfarb and Hill 2014).

Earth Features are considered unlikely to occur in the activity area. The activity area has been previously surveyed and none were recorded at that time (Goldfarb and Hill 2014).

Quarries are considered unlikely to occur in the activity area. The activity area has been previously surveyed and none were recorded at that time (Goldfarb and Hill 2014).

Stone Arrangements are considered unlikely to occur in the activity area. The activity area has been previously surveyed and none were recorded at that time (Goldfarb and Hill 2014).

Stony Rises are considered unlikely to occur in the activity area. GMU 6.1.2 is present in the activity area; therefore, stony rises may be present in parts of the activity area that are relatively undisturbed. If stony rises are present, they will be in areas that have not been previously surveyed by Goldfarb and Hill (2014).

Aboriginal Burials are considered unlikely to occur in the activity area. This Place type is relatively rare and the shallow topsoils of the Victorian Volcanic Plains are not conducive to burials.

7.7 Desktop Assessment – Summary of the Results and Conclusions

The activity area is located within the Victorian Volcanic Plains bioregion and the underlying geology is reflective of this. The volcanic plain landforms and stony rise geomorphological units that underlie the activity area support vegetation that is typical of grassy plains and grassy woodlands with some instances of varying vegetation along the creek lines of the major watercourses that cross the activity area.

[3] **Likely** is an assessment of site types with a 50% or more likelihood of occurring; **Unlikely** is an assessment of site types with less than 50% likelihood of occurring.

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The past land use within the activity area includes farming and agriculture, the use of the land for transport including rail and road corridor and has been used for subsurface utilities including sewer mains.

The desktop assessment indicates that a total of 98 Aboriginal Places have been registered within the geographic region. Most of these Places are located along the watercourses including the significant waterway of Merri Creek and the smaller Malcolm Creek. The database search and previous archaeological investigations found that the most likely Place type to be found within the activity area would be stone artefact scatters and LDADs. A review of previous archaeological investigations both in and around the activity area indicates that Aboriginal archaeological Places occur primarily in relation to reliable waterways, or along their tributaries, particularly on terraces or in elevated areas overlooking those resources.

A review of previous archaeological investigations indicated that it is reasonably possible that additional Aboriginal cultural heritage is present within the activity area; therefore, as per r.62, a standard assessment is required to assess the presence and nature of any Aboriginal cultural heritage in the activity area.

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8 STANDARD ASSESSMENT

The standard assessment includes a ground survey of the activity area to detect the presence of Aboriginal cultural heritage in or associated with the activity area.

The activity area was surveyed on 13 September 2023 by Maria Daikos (Archaeologist/Heritage Advisor) and Jayde Kindred (Archaeologist) with Naomi Zukanovic and Johnny Zukanovic representing Wurundjeri.

The extent of the activity area has altered over the course of the assessments undertaken for the CHMP. The results of the standard assessment as presented here relate to the activity area as shown in Map 4.

A summary of the archaeological survey attributes appears in Appendix 3.

8.1 Methodology of the Standard Assessment

As agreed during the inception meeting with the RAP, the standard assessment was conducted in areas which had not been subjected to previous surveys or standard assessments. The survey took the form of a pedestrian survey in which four participants walked 2 m apart across the sections of the activity area on Summerhill Road which had not been surveyed previously (Map 10). Other sections of the activity area were surveyed during the complex assessment as the shape of the activity area in response to changes in the Sponsor's scope of works. Due to refinement of the activity area during the course of the assessment, one area which was surveyed along Langley Park Drive has been removed from the CHMP. Details of this area are presented in Appendix 9.

The activity area was assessed for the presence of any mature native trees that may have cultural scarring. The geomorphological character of the activity area was surveyed for evidence of caves, cave entrances and/or rock shelters. The activity area was not surveyed along the Craigieburn railway line or along the Hume Highway as these areas had been surveyed as part of CHMP 12847. All points were taken with a handheld Differential Global Positioning System (dGPS) in this case, a Catalyst DA2 running Field Maps software.

8.2 Limitations of the Standard Assessment

The standard assessment was limited by poor ground surface visibility across much of the activity area. Although the road reserves of Mt Ridley Road and Summerhill Road could be accessed and surveyed with traffic management in place, effective survey coverage was limited by the GSV of 0-10%. There were additionally areas where ground surface conditions could not be assessed due to the presence of obstacles which included: the area beneath the Yarra Valley Water Reservoir Tanks, concrete footpaths and bitumen road on Mt Ridley Road, the bitumen road and Amaroo Road and the construction car park on Summerhill Road. These roads were additionally in active use by the field team and the public.

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8.3 Results of the Standard Assessment

8.3.1 Visibility, Exposure and Coverage

Ground surface visibility (GSV) varied throughout the activity area with a breakdown of the areas presented below.

8.3.1.1 Yarra Valley Water Reservoir Tank Site

Within the area of the Yarra Valley Water Reservoir tank at the top of Mt Ridley the GSV ranged from 0 to 10% within most of the area, with patches of GSV ranging from 70 to 80% in areas of erosion and along fence lines (Plate 1 to Plate 4) The access tracks surrounding the reservoir tanks had a GSV of 0% (Plate 1).



Plate 1: Activity area facing south, showing GSV of 0% (M. Daikos, 13 September 2023)



Plate 2: Activity area facing south, showing GSV of 10% (M. Daikos, 13 September 2023)



Plate 3: Activity area facing west, showing GSV of 80% near the fence line of the reservoir tank compound (M. Daikos, 13 September 2023)



Plate 4: Activity area facing north, showing GSV of 80% within the fence line of the reservoir tank compound (M. Daikos, 13 September 2023)

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Mt Ridley Road

The GSV within Mt Ridley Road section ranged from 0% (Plate 5) to 10% (Plate 6) within the road reserves due to grass coverage, and 0% along the bitumen road and footpaths (Plate 7 and Plate 8). There were small patches of GSV ranging from 40-50% within disturbed areas such as tyre tracks, services and signage (Plate 9 and Plate 10).



Plate 5: Activity area facing east at the end of Mt Ridley Road, showing GSV of 0% (M. Daikos, 13 September 2023)



Plate 6: Activity area facing north, showing GSV of 10% (M. Daikos, 13 September 2023)



Plate 7: Activity area facing east, showing GSV of 0% within footpath along Mt Ridley Road (M. Daikos, 13 September 2023).



Plate 8: Activity area facing south, showing GSV of 0% along Mt Ridley Road (M. Daikos, 13 September 2023).

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Plate 9: Activity area facing west, showing GSV of 40% within tyre track in the road reserve (M. Daikos, 13 September 2023)



Plate 10: Activity area facing east, showing GSV of 40-50% within services along the road reserve (M. Daikos, 13 September 2023)

Summerhill Road

The GSV within Summerhill Road ranged 0 to 10% (Plate 11 and Plate 12) within the road reserves and within some properties due to grass coverage, and 0% within the construction car park and Summerhill Road (Plate 13 and 14). There were small patches of GSV ranging from 70-80% within disturbed areas such as the areas stripped of grass due to construction, and vehicle access tracks (Plate 15 and Plate 16).



Plate 11: Activity area facing west at on Summerhill Road, showing GSV of 0- 10% (M. Daikos, 13 September 2023).



Plate 12: Activity area facing west, showing GSV of 0% (M. Daikos, 13 September 2023).

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Plate 13: Activity area facing west, showing GSV of 0% within footpath along Mt Ridley Road (M. Daikos, 13 September 2023).



Plate 14: Activity area facing east, showing GSV of 0% along Summerhill Road (M. Daikos, 13 September 2023).



Plate 15: Activity area facing south, showing GSV of 80% within tyre track in the road reserve (M. Daikos, 13 September 2023)



Plate 16: Activity area facing south, showing GSV of 80% within construction area along Summerhill Road (M. Daikos, 13 September 2023)

Donnybrook Road

The GSV within Donnybrook Road ranged from 0% to 40% - 50% where grass coverage had been eroded and around areas of disturbance (Plate 17 and Plate 18).

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Plate 17: Activity area facing west, showing GSV of 50% (M. Daikos, 13 September 2023).



Plate 18: Activity area facing south-east, showing GSV of 0% (M. Daikos, 13 September 2023)

8.3.1.2 Effective Survey Coverage

Effective survey coverage calculations are based on the percentage of ground surface exposure alongside providing a measure for the 'detectability' of artefacts and the level of survey sampling effort within each landform in the activity area. The method of calculating the ESC was the weighted arithmetic method in which [(Landform A's value * weight) PLUS (Landform B's value * weight) etc] DIVIDED BY [Sum of weights], where "value" refers to the area of the landform surveyed and "weight" refers to the ground surface visibility thereby correcting the area surveyed to visible area The field team recorded areas according to their GSV while at the same time noting the landforms in the activity area. On return to the office, the data was entered into an Excel spreadsheet with the GIS team then calculating the ESC and adding it to the standard assessment results map.

Table 11: Effective Survey Cover Calculations within the Activity area

Landform	Total Area (Ha)	Average Landform GSV (%)	Area of Activity area Surveyed (ha)	Percentage of Activity area Surveyed (%)	Effective Survey Coverage (%)
Plain	66.0	12.5	37.28	51.79	6.47
Hill	5.01	10	4.7	6.29	9.3
Creek line	0.78	10	0.46	0.8	0.11
Total	**71.79**	**10.8**	**42.23**	**56.35**	**15.08%**

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8.3.2 Landforms

The survey confirmed the landforms identified during the desktop assessment (Section 7.1.3) with three main landforms present, a hill, volcanic plain and a creekline (Map 10). The majority of the activity area is recorded as a plain landform (Plate 19), with a hill landform located in the west of the activity area (Plate 20); this is the former eruption point of Mt Ridley itself. Merri Creek crosses the activity area in the north, between Summerhill Road and Donnybrook Road (Plate 21).



Plate 19: Activity area facing east on Summerhill Road, showing Plain landform (M. Daikos, 13 September 2023).



Plate 20: Activity area facing east near the Yarra Valley Water reservoir tanks, Mt Ridley Road, showing the view from the top of the hill landform (M. Daikos 13 September 2023).



Plate 21: Activity area facing east showing a drainage line across the plain landform near Langley Park Drive (M. Daikos 13 September 2023).

8.3.3 Previous Ground Disturbance

Several areas of previous ground disturbance were identified during the standard assessment (Map 10). It was also noted that most parts of the activity area have been disturbed by past land use including, the Craigieburn Station car park and Craigieburn Road East in the south of the activity area, the installation of a water pipeline in the pipe track. The activity area is crossed by the Melbourne-Sydney

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railway line, and the Craigieburn Bypass section of the Hume Freeway. Other carriageways include Summerhill Road and Mt Ridley Road.

Yarra Valley Water Reservoir Tank Site

- Water reservoir tanks (Plate 22 and Plate 23);
- Bitumen roads around reservoir tanks (Plate 24 and Plate 25); and
- Waterpipes and subsurface utilities (Plate 26, Plate 27, Plate 28 and Plate 29).



Plate 22: Activity area facing west showing water reservoir tank (M. Daikos, 13 September 2023).



Plate 23: Activity area facing north-west showing water reservoir tank (M. Daikos, 13 September 2023).



Plate 24: Activity area facing south showing bitumen road surround water tanks (M. Daikos, 13 September).



Plate 25: Activity area facing north showing bitumen road surrounding water tanks (M. Daikos, 13 September).

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Plate 26: Activity area facing north-west showing water reservoir tank and bitumen road and subsurface utilities (M. Daikos, 13 September 2023).



Plate 27: Activity area facing west showing surface and areas of subsurface utilities (M. Daikos, 13 September 2023).



Plate 28: Activity area facing south-west showing subsurface utilities (M. Daikos, 13 September 2023).



Plate 29: Activity area facing north showing pipe and subsurface utilities (M. Daikos, 13 September 2023).

Mt Ridley Road

- Bitumen road and concrete footpaths (Plate 30);
- Roundabout (Plate 31); and
- Above ground and subsurface utilities (Plate 32 and Plate 33).

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Plate 30: Activity area facing east, showing bitumen road and concrete footpath (M. Daikos, 13 September 2023).



Plate 31: Activity area facing south-west, showing bitumen road and roundabout (M. Daikos, 13 September 2023).



Plate 32: Activity area facing south-west showing subsurface utilities (M. Daikos, 13 September 2023).



Plate 33: Activity area facing west showing above ground electricity/telecommunications pole (M. Daikos, 13 September 2023).

Summerhill Road

- Sealed and unsealed roads (Plate 34 and Plate 35);
- Piles of rubbish in roadside reserves (Plate 36);
- Melbourne-Sydney Railway line (Plate 37); and.
- Stripped areas and car park associated with ongoing construction (Plate 38 and Plate 39).

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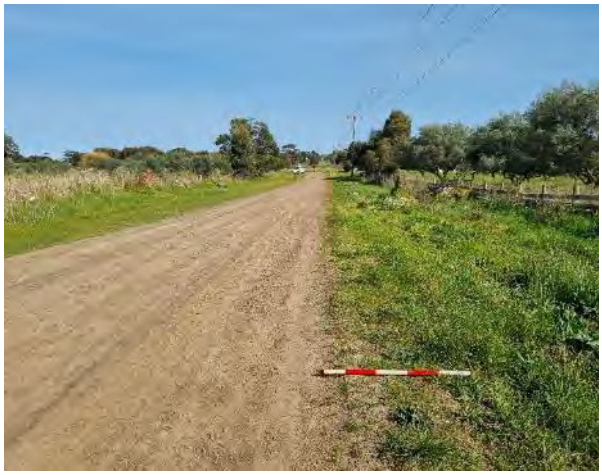

Plate 34: Activity area facing west, showing unsealed road (photograph taken by M. Daikos 13 September 2023).



Plate 35: Activity area facing east, showing sealed road and stripped road reserve (photograph taken by M. Daikos 13 September 2023).



Plate 36: Activity area facing south showing rubbish piles in road reserve (M. Daikos, 13 September 2023).



Plate 37: Activity area facing east road reserve with railway crossing in background (M. Daikos, 13 September 2023).



Plate 38: Activity area facing west showing carpark with gravel (M. Daikos 13, September 2023).



Plate 39: Activity area facing east showing mature remnant vegetation and tyre tracks (M. Daikos 13, September 2023).

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Donnybrook Road

- Subsurface utilities (Plate 45); and
- Farm fencing posts (Plate 46).



Plate 40: Activity area facing north showing subsurface utilities (M. Daikos, 13 September 2023).



Plate 41: Activity area facing east showing fence and fence posts (M. Daikos, 13 September 2023).

8.3.4 Aboriginal Cultural Heritage Identified during the Standard Assessment

No new Aboriginal cultural heritage was identified during the standard assessment.

The previously recorded Aboriginal Place VAHR 7822-1574 was reinspected during the survey of CHMP 12847 (Goldfarb and Hill 2014) and s.34A survey (Filihia and Moroney 2025). A Place Record Edit was commenced by Ecology and Heritage Partners to the VAHR following the completion of the s.34A survey (but was finalised and approved during the complex assessment undertaken for this CHMP). GSV was low during the s.34 survey with short, thick grass covering the ground surface. No additional Aboriginal cultural heritage was observed during the s.34A survey. All mature native trees were examined and no cultural scarring was located. There are no caves, cave entrances or rock shelters present within the activity area.

8.3.5 Areas of Aboriginal Cultural Heritage Likelihood

Four areas of Aboriginal cultural heritage likelihood were identified during the standard assessment (Map 9).

- The creekline of Merri Creek in the north of the activity area;
- The creekline of Malcolm Creek in the south of the activity area;
- A small patch of land retaining remnant native vegetation on Summerhill Road, west of the railway line;
- The Mount Ridley Nature Conservation Reserve; and

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While some disturbance can be seen within these areas, such as the construction of fences and the remains of building materials, the landform in these areas seems to remain untouched by extensive ground disturbance. Along Summerhill Road, there are stands of mature River Red Gums (Plate 44); these must also be considered as areas retaining archaeological potential.

8.4 Standard Assessment – Summary of Results and Conclusions

The desktop assessment found that there are three landforms present within the activity area: a plain, a hill and creek lines. As an elevated landform, the hill would normally be considered to be a sensitive landform for Aboriginal cultural heritage (see Ellender 1997, Section 7.5 above); however, within the activity area, there has been considerable ground disturbance resulting from the use of the site for reservoir tanks and from the build-up of residential roads and roads reserves. Excavations have occurred on the hilltop for the creation of the tanks, and the excavated earth has been piled into a bund that surrounds the tanks. Additional subsurface utilities and roads are present in the tank complex.

Other sections of the activity area are less disturbed. Summerhill Road is crossed by both a major freeway and an interstate railway line; however, the road reserve of Summerhill Road retains stands of mature River Red Gums, which indicate that not all areas have been disturbed by roads and construction. Further north, the creekline of Merri Creek was assessed as having potential to contain Aboriginal cultural heritage, as was the creekline of Malcolm Creek in the south.

The archaeological site prediction statement made at the conclusion of the desktop assessment found that artefact scatters and LDADs were the Aboriginal Place types most likely to occur in the activity area. No new Aboriginal Places were found during the standard assessment; however, as Aboriginal cultural heritage is present in the activity area, it is necessary to proceed to a complex in accordance with r.62(1) of the *Aboriginal Heritage Regulations 2018.*

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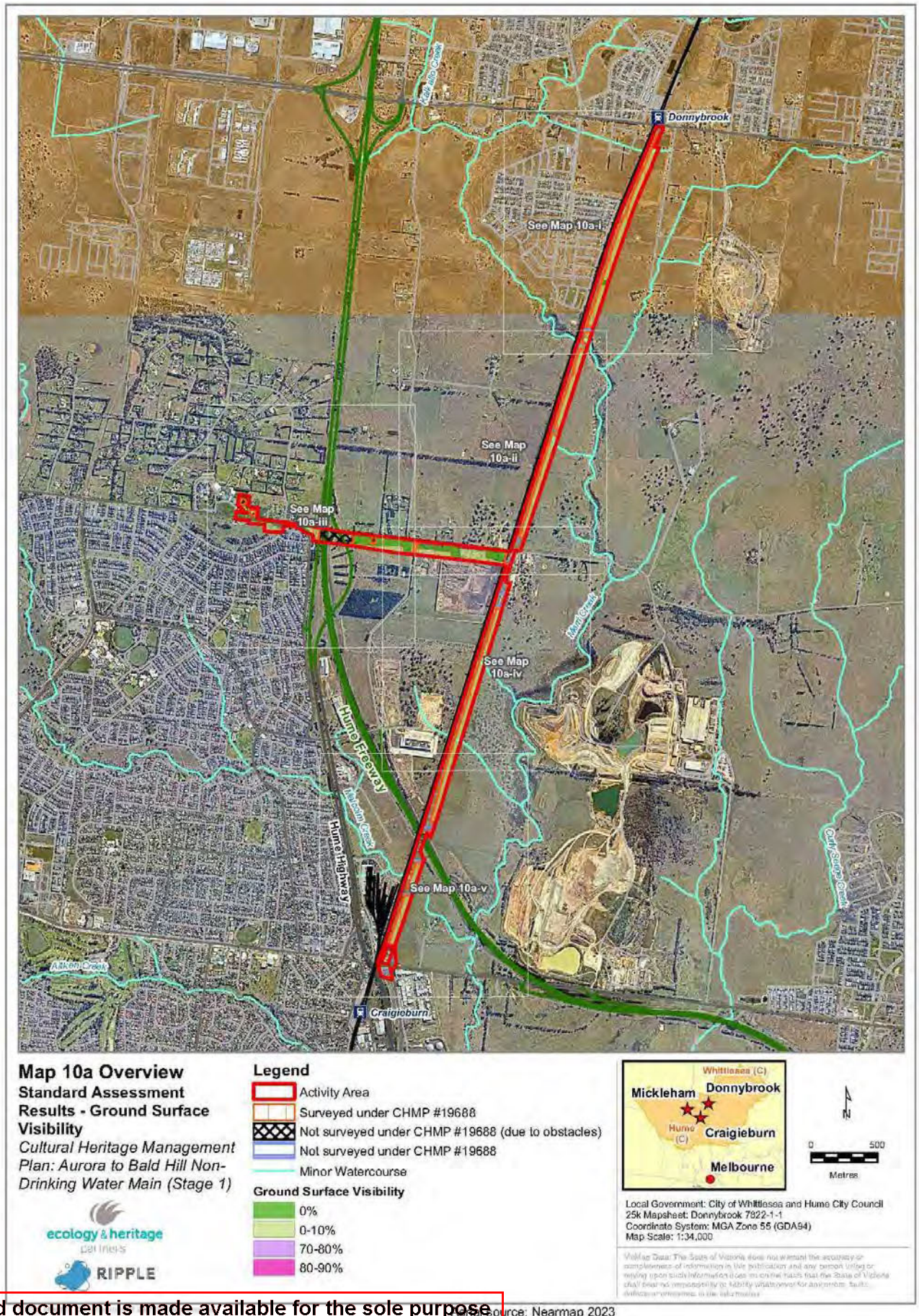

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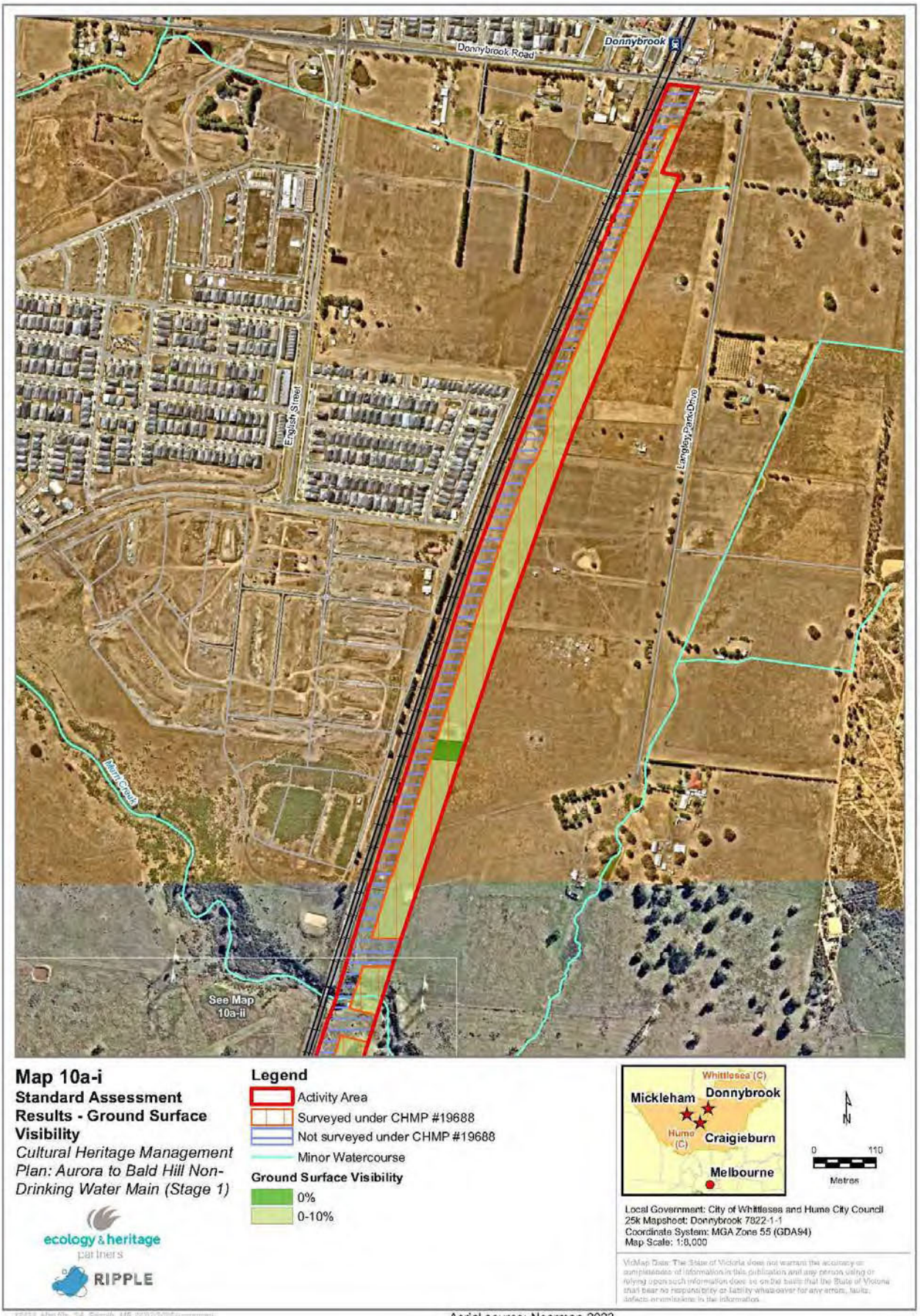

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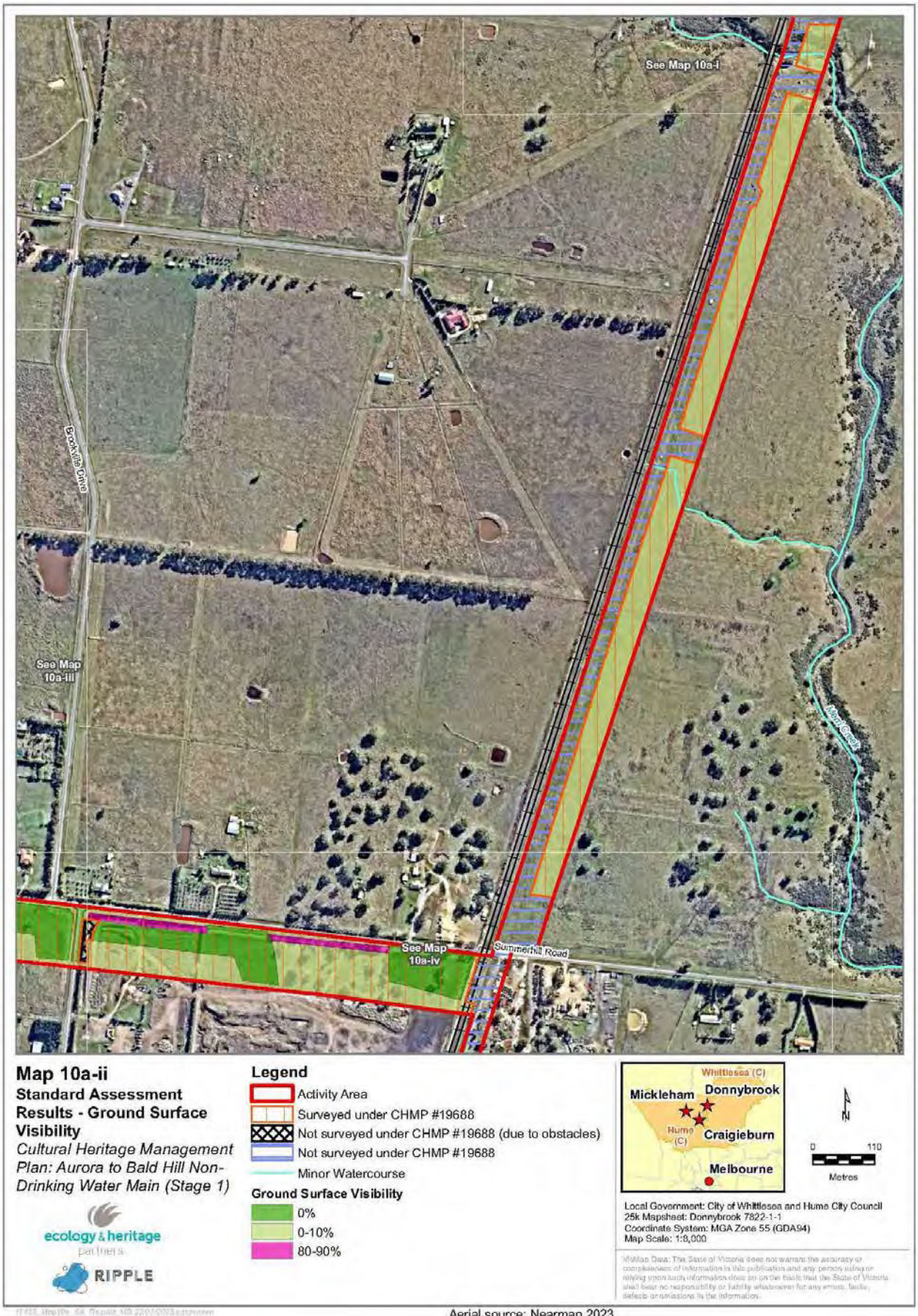

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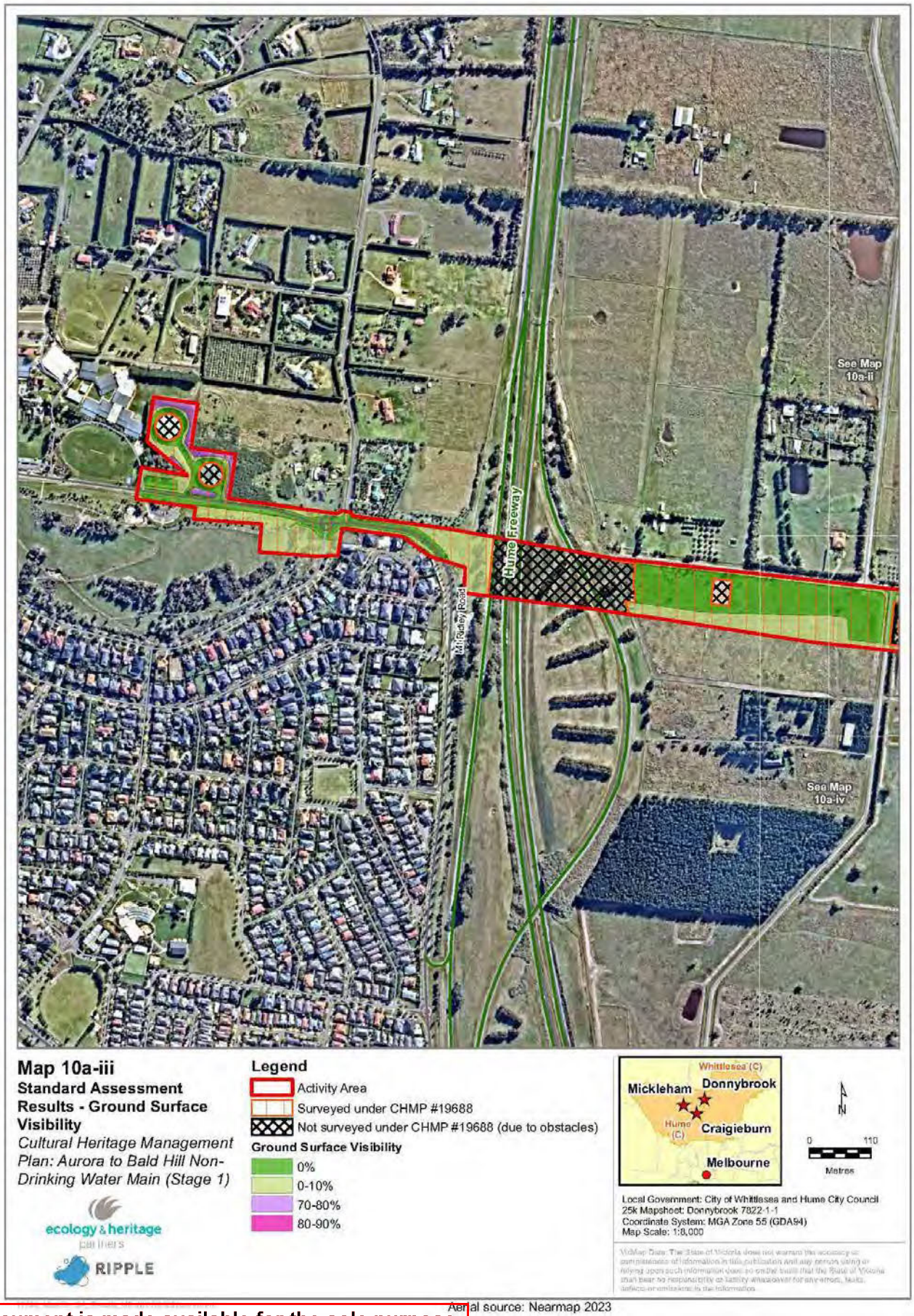

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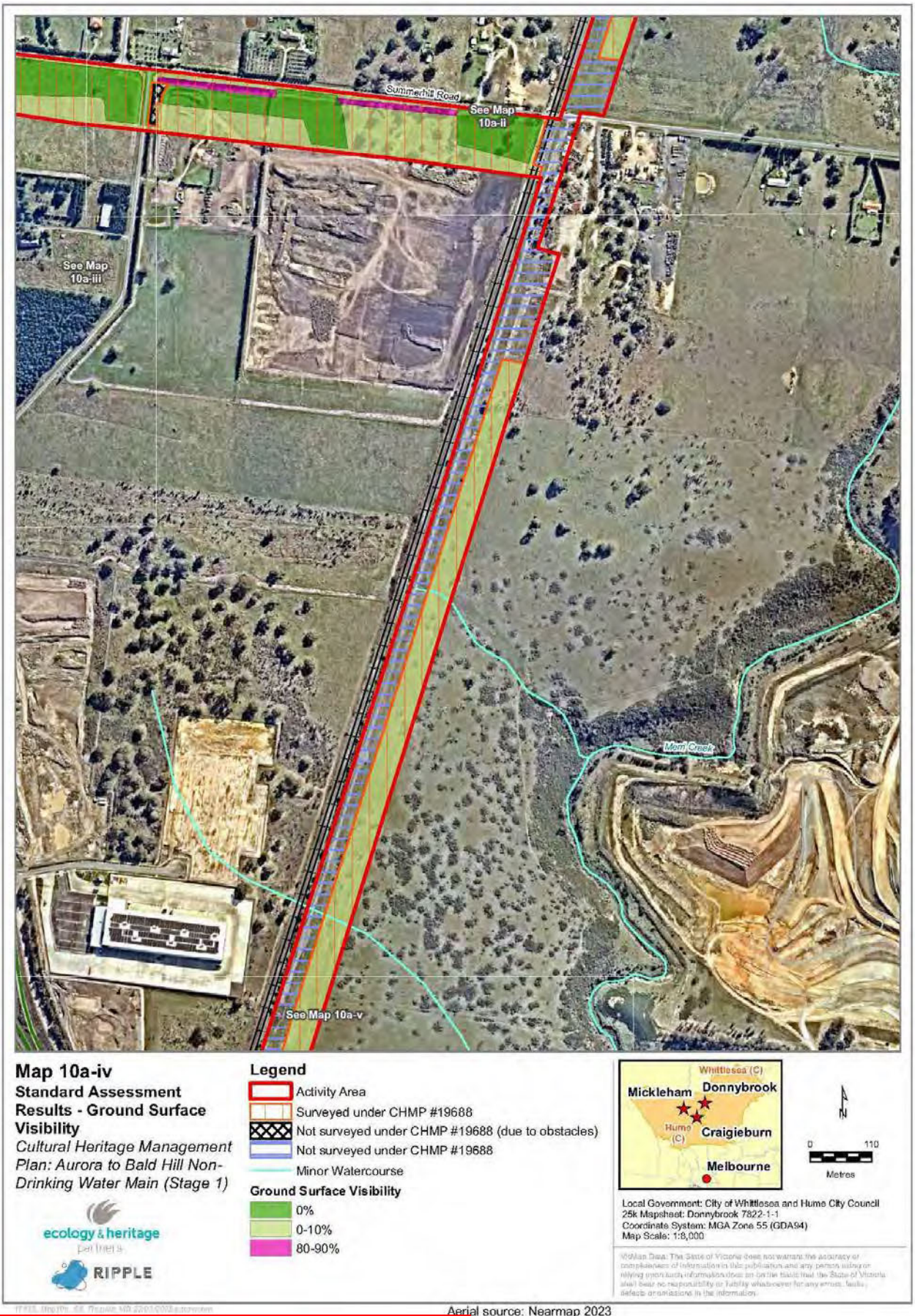

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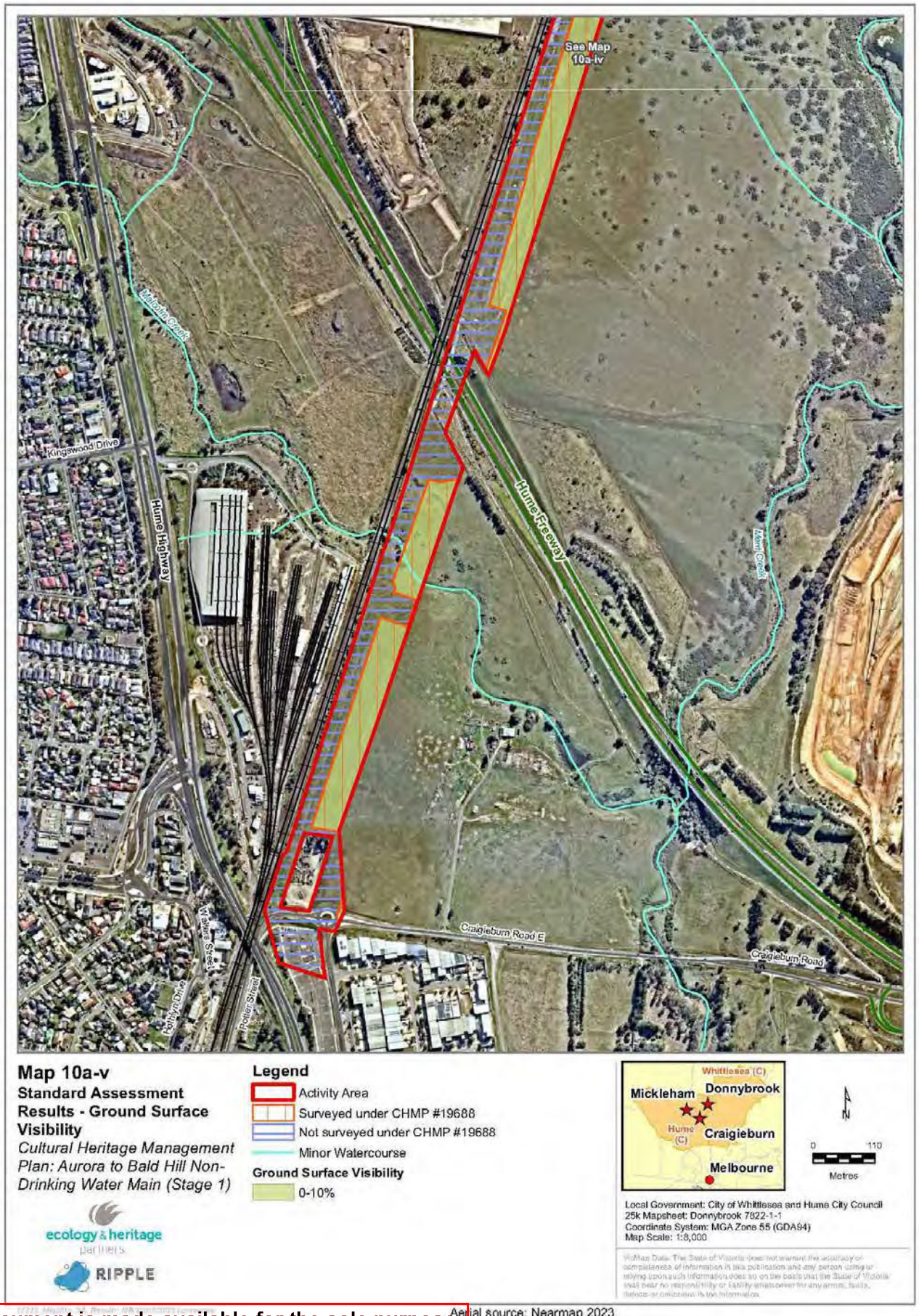

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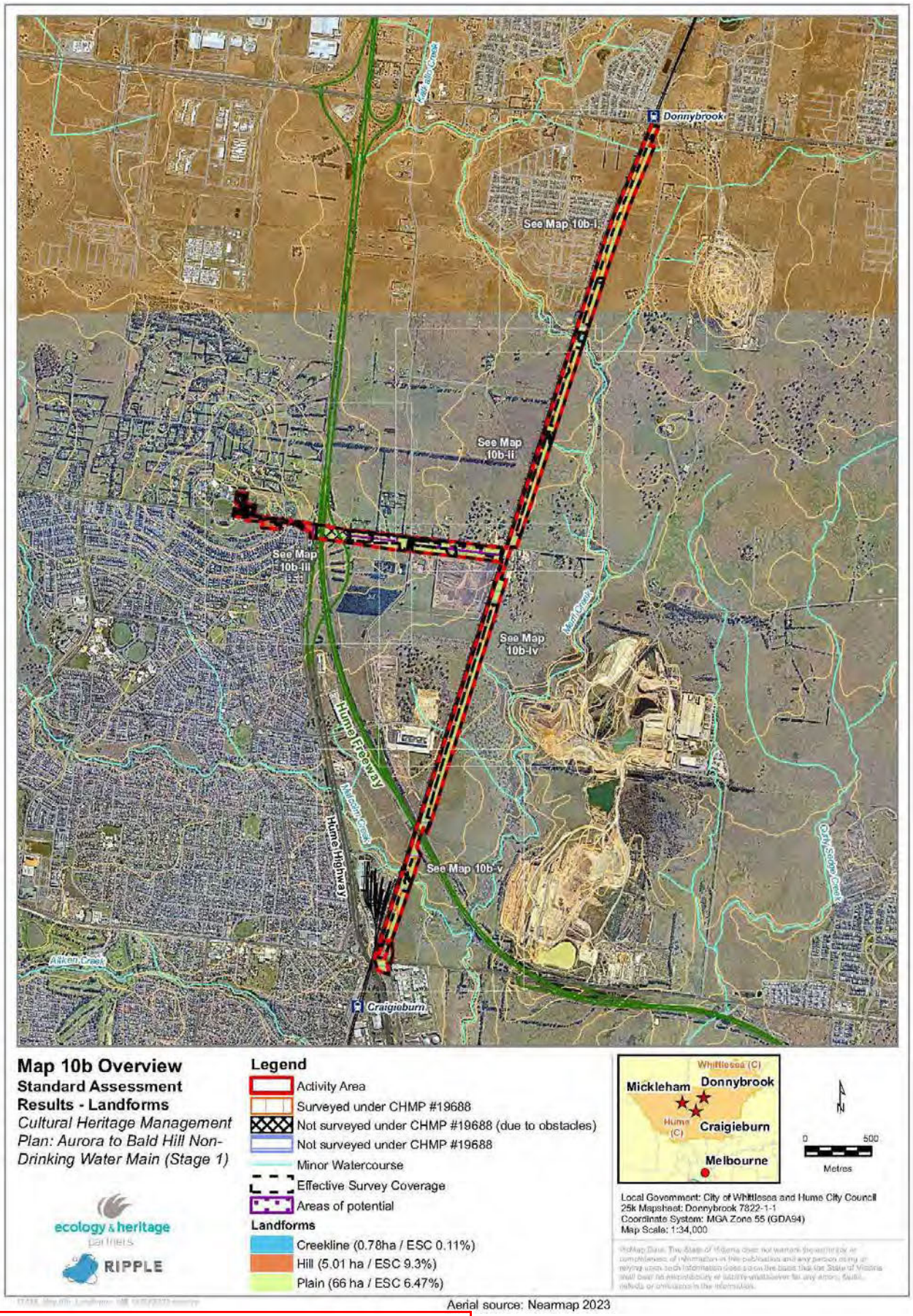

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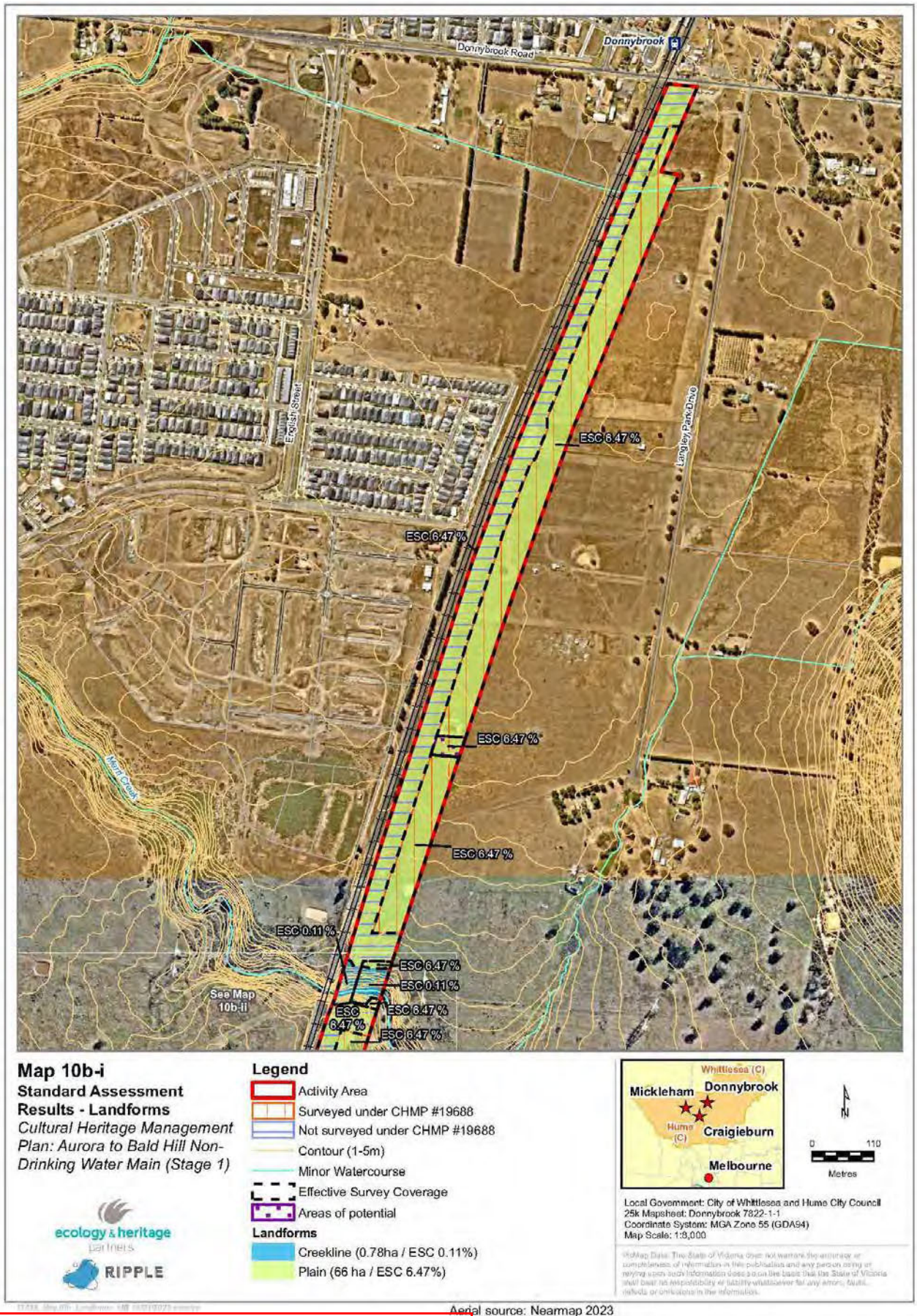

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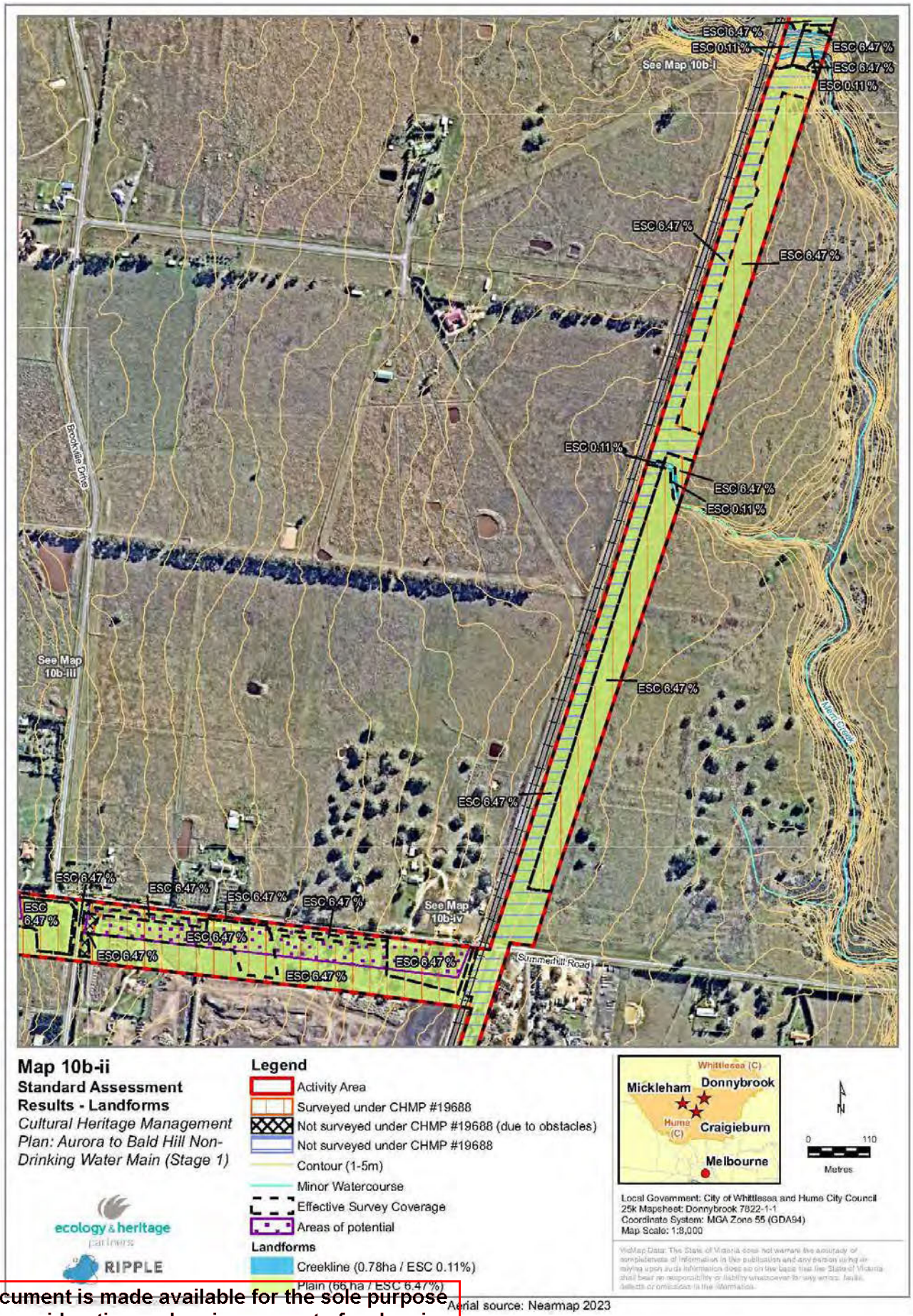

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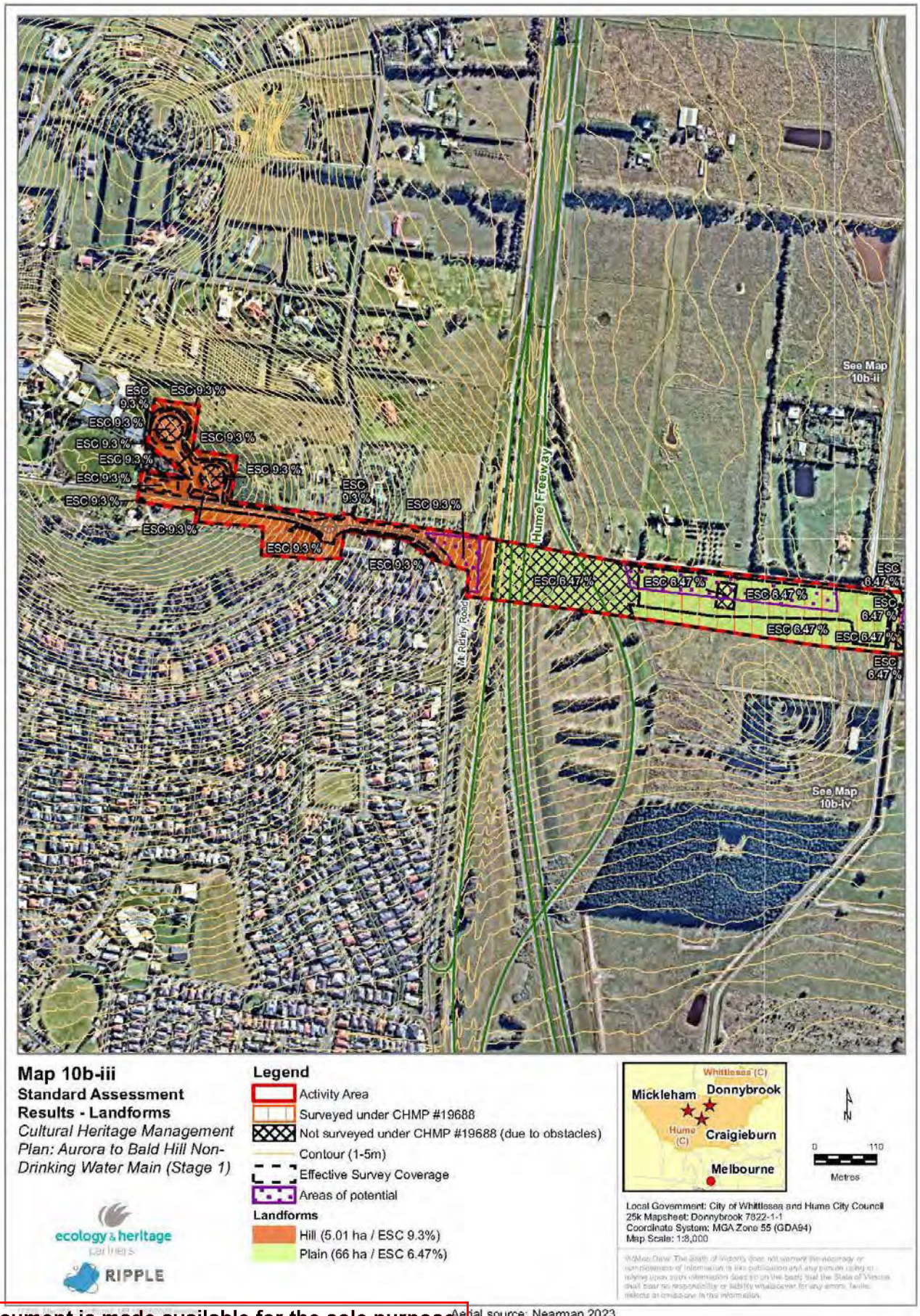

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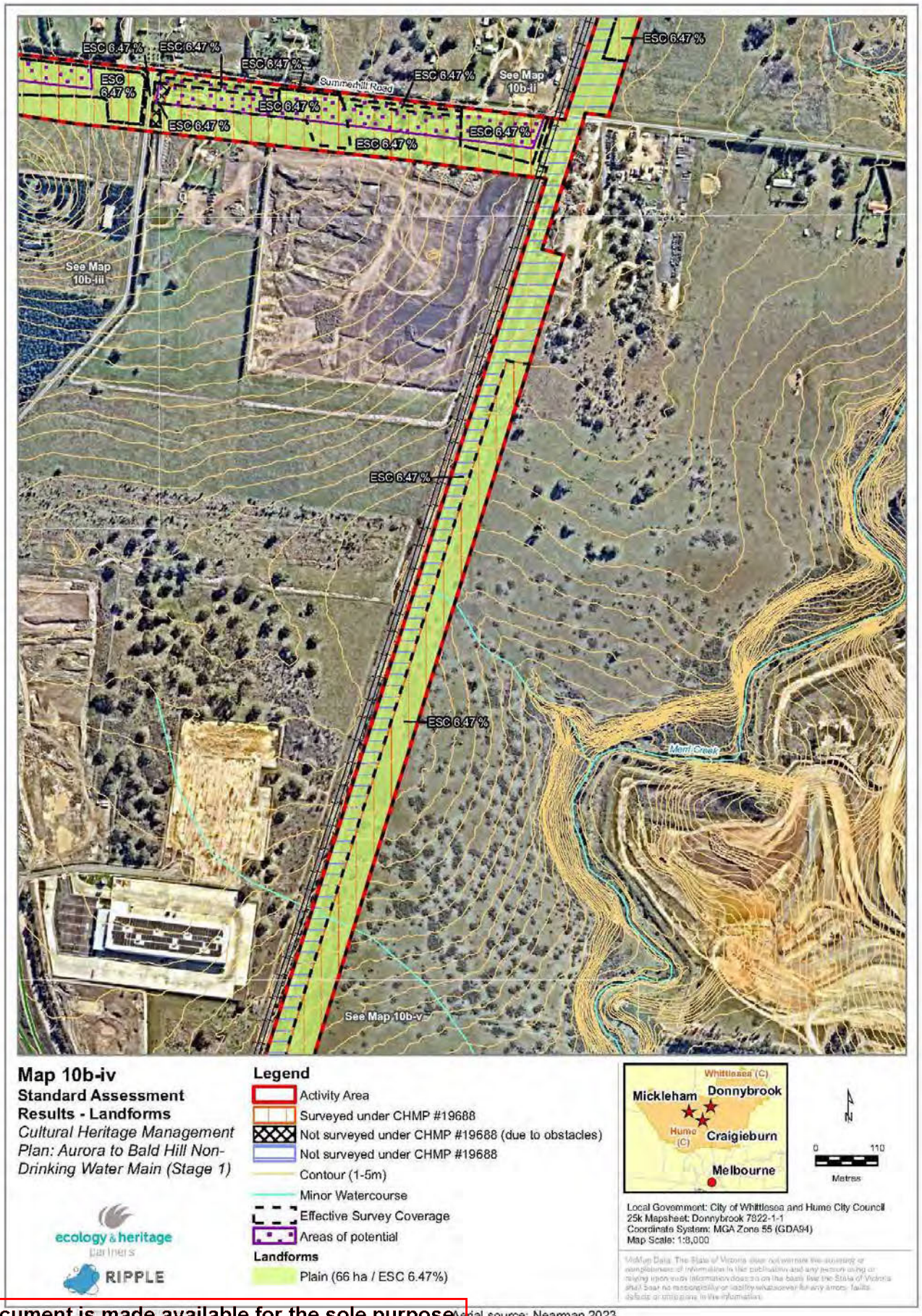

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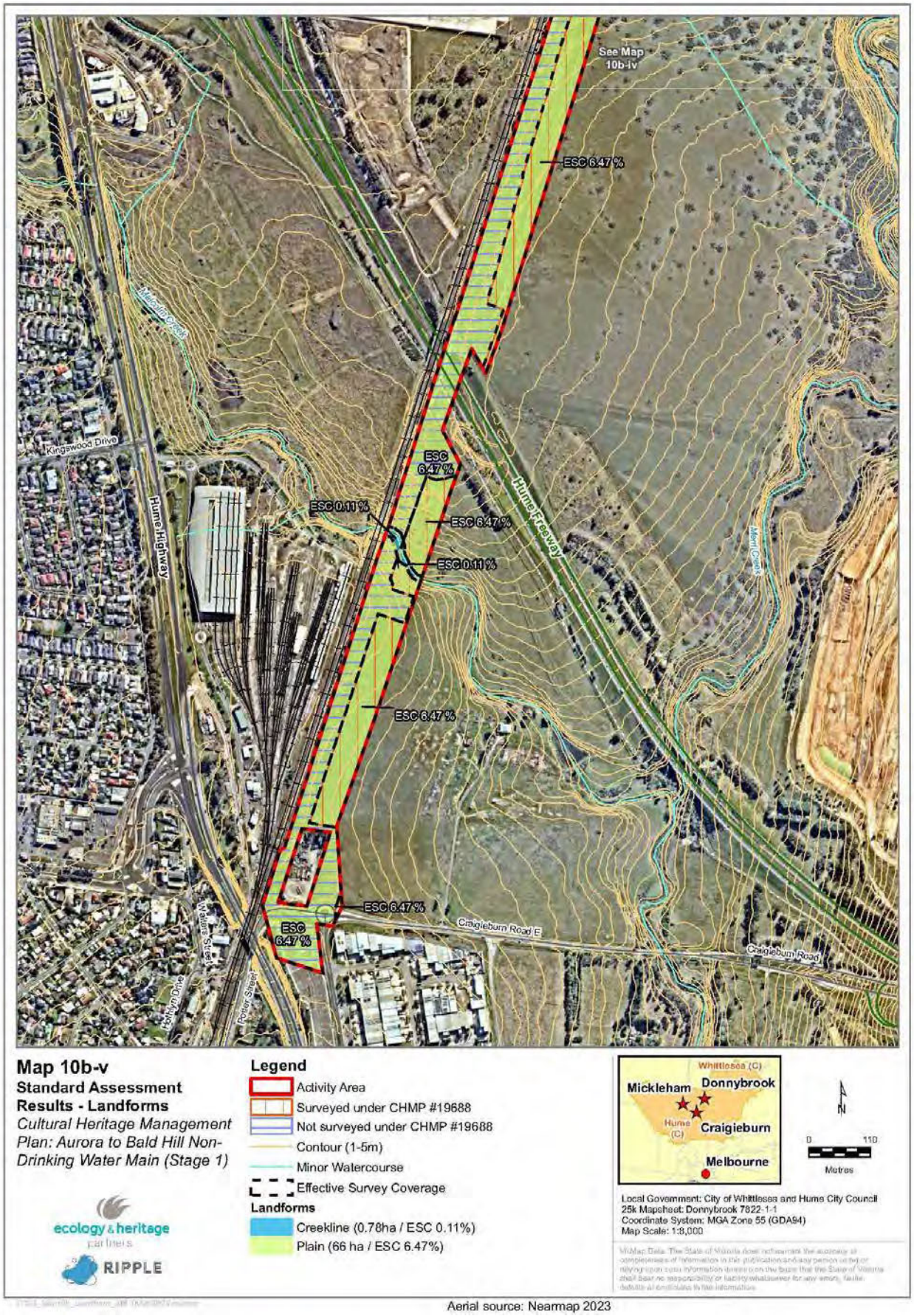

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9 COMPLEX ASSESSMENT

The complex assessment involves excavation (subsurface testing) in the activity area to uncover or discover Aboriginal cultural heritage.

The subsurface testing program was conducted over 21 days between 20-22 February and 05 April 2024 and 19 November to 04 December 2024. One additional day of complex assessment was undertaken at the request of the RAP on 28 August 2025.

These fieldwork was undertaken by Conor Gamble, Roark Muhlen-Schulte, Adrianna Mitrano and Ian Ostericher (Archaeologists/Heritage Advisors), and Aishling Firmager, Alex Ivkovic, Dylan Branda-Pawlaczyk, Fotini Tetikis, Harrison Zauner, Jayde Kindred and Meg Morris (Archaeologists), with Aidan Finn, Barry Anthony, Brandon Kerrigan, Brooklyn Zukanovic, Casey Wandin-Collins, Chrysogionus Perumal, Clare Kennedy, Emily Fien, Jarah Wandin, Jason Anthony, Jason Brailey, Jesse Zukanovic, Joe Charles, Jonny Zukanovic, Julian Woolmore, Justin Warrie, Lara Wandin-Collins, Lovedeep Singh, Madison Zukanovic, Satnam Singh, Shane Nicolson, Thorne Smith, Tony Finn, Travis Smith, Trevor Barker, Tyison Galway, Wade Garvey, Wesley Drew, Brooklyn Zukanovic and Natalie Finn representing WWCHAC.

Conor Gamble (Heritage Advisor/Archaeologist), Roark Muhlen-Schulte (Senior Heritage Advisor/Archaeologist) and Adrianna Mitrano (Archaeologist/Heritage Advisor) supervised the excavations.

The extent of the activity area has altered over the course of the assessments undertaken for the CHMP. Due to amendment in activity area as a result of project scope changes, some extent of testing was completed outside the current activity area. The results of assessment outside the current activity area are included in Appendix 9.

The results of the complex assessment are presented as relevant to the activity area shown in Map 4.

A summary of the archaeological survey attributes appears in Appendix 3.

9.1 Aims and Methodology of the Complex Assessment

9.1.1 Aims

The aims of the complex assessment were:

- To determine the nature, extent and significance of Aboriginal cultural heritage likely to be present within the activity area based on the results of the desktop and standard assessment.
- To detect the possible presence of Aboriginal cultural heritage in the activity area due to poor GSV during the standard assessment; and
- To verify the degree of prior ground disturbance identified during the desktop and standard assessments.

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9.1.2 Methodology

The use of subsurface investigation to investigate the presence, extent and nature of Aboriginal Places was guided by background research and the results of the ground survey (Map 10, Table 11). The methodology for subsurface testing was developed in consultation with WWCHAC (see Section 6 in regard to Consultation for the assessment).

All unnamed tributaries intersecting within the agreed testing locations in the activity area were investigated with 1 x 1 m TPs excavated on either side. One tributary was not investigated in this CHMP, due to CHMP #12847 having previously tested this location (See Section 6 for explanation of testing locations).

Subsurface testing was conducted according to proper archaeological practise as per Regulation 65(3) of the *Aboriginal Heritage Regulations 2018*. All points were taken with a handheld Differential Global Positioning System (dGPS) in this case a Trimble Geo7X running ArcPad software. Three excavation techniques were employed:

1) Test Pits (TPs) measuring 1 x 1 m (1 m²) were excavated in all landforms and targeted areas which would provide the best indication of stratigraphic conditions within the activity area. TPs were specifically requested by the Elders on the north side of the Merri Creek crossing and on both sides of the unnamed waterway, however testing would not be conducted in areas previously subjected to subsurface testing under CHMP #12847. TPs were excavated by hand in controlled 100 mm units (spits).

2) Mechanical Trench Pits (MTP) measuring 5 x 1 m (5 m^2) were excavated with a mechanical excavator equipped with a 1 m wide mud bucket. MTPs were undertaken in areas which had not been subject to complex assessment under CHMP 12847 (Goldfarb & Hill 2014, Map 11). MTPs were excavated at the locations of launch and retrieval shafts where the pipeline will cross beneath creeks and beneath the freeway and railway line where conditions permitted and where testing had not been previously undertaken;

3) Radial Test Pits (RTPs) measuring 2 x 1 m (2 m²) were excavated as part of the extent testing stage of complex assessment. RTPs were excavated north, south, east and west around positive STPs and TPs to further assess the presence, density and context of the artefact deposits.

The following method was utilised for previous testing locations from a previous CHMP #12847 – Amaroo Main Sewer Project, Outer Northern Melbourne (Map 11).

1) Shovel Test Pits (STPs) measuring 0.5 x 0.5 m (0.25 m²) were excavated to investigate the presence of artefacts and verify subsurface conditions (i.e. prior ground disturbance) in places where artefacts had not previously been located.

Notes and photographs were taken throughout the complex assessment; information on the context, soil and stratigraphy was recorded on pre-prepared forms or tablet devices, together with dumpy levels for Test Pits.

For the controlled manual excavation of 1 x 1 m Test Pits (TPs), the technique was to excavate in 100 mm spits, with changes of context being noted. Excavation continued into the clay base stratigraphic layer to confirm culturally sterile soil. All excavated soil was sieved through 5 mm mesh and spoil heaps

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were placed 1 m downwind of excavations. All archaeological material, including modern/non-Aboriginal items, was collected and recorded according to depth below the surface (in 100 mm ranges or, where possible, with the exact depth recorded). The RAP was present and consulted with during all excavation activities. Soil samples of each context were collected from all tested areas and analysed for texture, colour and pH. Detailed recording included the photographing and drawing of one profile, nominally the north section.

The purpose of the TPs was to test for presence or absence of Aboriginal cultural heritage in the areas of likelihood, Landforms or for subsurface deposits within Aboriginal Places identified in the standard assessment.

For the controlled mechanical excavation of 1 x 5 m MTPs, the technique was to excavate in 100 mm spits with either a 2 tonne or 5 tonne excavator equipped with a flat-edged mud bucket. Excavation continued into the clay base stratigraphic layer to confirm culturally sterile soil. All excavated soil was sieved through 5 mm mesh and spoil heaps were placed 1 m downwind of excavations. All archaeological material, including modern/non-Aboriginal items, was collected and recorded according to depth below the surface (in 100 mm ranges or, where possible, with the exact depth recorded). The RAP was present and consulted with for all excavation activities. Soil samples of each context were collected from all tested areas and analysed for texture, colour and pH. In addition, a stratigraphic description of each Mechanical Test Pit (see Table 12 and Table 14) was recorded. No features such as hearths or artefact scatters, which would necessitate the use of manual excavation techniques were encountered during the complex assessment.

No artefacts were found in TPs; where artefacts were found in MTPs, a series of Radial Test Pits (RTPs), each measuring 2 m x 1 m were excavated north, south, east and west around the MTP where artefacts were found. Excavation of RTPs ceased where a single negative RTP was obtained or the edge of the activity area was reached. The purpose of the RTPs was to test the spatial extent of the Place.

The presence or absence of artefacts for each TP, MTP and RTP informed the Place extent for registered Aboriginal Places. They also had section drawings recorded, photographs taken and records for each soil context (texture, colour and pH) were also taken.

Following the completion of the fieldwork, collected artefacts were cleaned and analysed. All stone artefacts were catalogued using categories consistent with First Peoples – State Relations standards for recording Aboriginal Places. The full artefact catalogue is contained in Appendix 6.

The RAP authorised other ground-disturbing technical testing to take place subject to RAP monitoring (see Section 6). These tests included geotechnical testing utilising a truck-mounted drill and soil contamination testing in which samples were collected using hand augered boreholes. The location of these tests which were subject to RAP monitoring are shown on Map 11.

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9.2 Limitations and Obstacles of the Complex Assessment

The limitations and obstacles to the complex assessment included the presence of subsurface utilities within the activity area, the presence of asbestos in multiple areas and topsoil disturbance from construction activities.

An obstacle to the project was unknown service locations and encountering the known services present along the linear alignment. All efforts were made to locate the services using an accredited service locator along Summerhill Road, who identified possible locations of services. Outside of this service location service, areas that could contain services were identified and the location of the excavations were shifted to proceed with the task.

The presence of asbestos in multiple locations was an obstacle to the complex assessment in Summerhill Road. Multiple MTP excavations (MTP09, MTP10, MTP11) were started and then halted due to finding four pieces of asbestos; this was done in accordance with the RAP's asbestos management policies and necessitated the preparation of an Asbestos Management Plan. When Complex Assessment resumed, another piece of asbestos was found at MTP26, requiring the field team to move away from that location to other excavation locations more than 50 m from the asbestos. Consultation was undertaken with the RAP regarding the contaminated areas in relation to both the excavation of mechanical test pits and the monitoring of soil contamination boreholes; it was agreed that further excavation was not required in these locations (see Section 6).

Another limitation to the assessment was the topsoil disturbance along Summerhill Road which caused six proposed MTP locations to be inaccessible. Two of these locations had been scraped, with topsoil stripped and stockpiled at the edges of the property. These two MTPs; located west of the asbestos-contaminated locations were attempted during the second complex testing phase from September to November 2024. During this time, one of the MTP locations was completely submerged and deemed both inaccessible and to be of low archaeological potential. The other MTP location was positioned under a wide access road (Plate 42) . Due to the conditions of the MTP locations and their immediate surrounds, it was determined that no suitable alternative placement could be identified as the area had undergone wholesale topsoil stripping (Plate 43).

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Plate 42: Activity area facing south showing wide driveway across activity area (C. Gamble 01.03.2024)



Plate 43: Activity area facing south showing access road and stockpiled stripped topsoil (C. Gamble 01.03.2024)

The RAP personnel on site confirmed the inaccessibility and low potential of the two MTPs and the surrounding area (Brandon Kerrigan and Wesley Drew 28 November 2024) (See Section 6).

Additionally, a further section of four excavation locations were inaccessible due to construction works which had commenced in private property; deposition of spoil heaps and the construction of a car park prevented the excavation of the proposed MTPs. Waterlogging was also a consistent obstacle to proceeding with complex assessment. The RAP was informed of these obstacles by email (see Section 6); it was agreed that complex assessment of these areas was not required.

The activity area is linear and adjacent to the rail reserve of the railway line; this created an obstacle to the complex assessment as there was insufficient space available to excavate a radial test pit to the west of MTP19 without causing damage to the fences or entering the rail corridor.

9.3 Geotechnical Testing

Geotechnical testing was required to be undertaken to inform the design and alignment of the proposed pipeline. One geotechnical borehole was undertaken, with the timing of the testing coinciding with the complex assessment and being monitored at the request of the RAP (see Table 4, Section 6). The geotechnical borehole was excavated on the south side of Malcolm Creek (Map 11, Appendix 8). The borehole found clayey silt to a depth of 100 mm, overlying silty clay ranging from 100 to 500 mm with a context comprised of clayey gravel between 500 mm to 800 mm. Rock coring was then undertaken into the basalt bedrock. The bore log extracts for STN01 are attached at Appendix 8.

9.4 Results of the Complex Assessment

9.4.1 Subsurface Testing

A total of 11 1 x 1 m TPs (comprising one in each of the three landforms and one test pit on either side of waterways in the activity area as agreed with the Elders and taking into consideration the results of previous testing; two of these TPs were later removed due to activity area changes (see Appendix 9). In

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total, 20 MTPs were excavated with five abandoned due to asbestos with an additional five being excluded from analysis due to activity area changes. Finally, 13 radial test pits (RTPs) were excavated (Map 11). Negative RTPs were obtained to the east, south and west of the positive MTP (Map 11c). In the field, MTP14 N1 contained a piece of stone which was thought to be cultural; consequently, MTP14 N2 was excavated and was found to be positive. MTP14 N3 was a negative radial to the north. The stone collected from MTP14 N1 was later found during cataloguing and analysis not to be culturally modified, making MTP14 N1 to be a negative radial test pit (Map 11c).

The coordinates of each test location are presented in Appendix 4.

The excavation located 11 artefacts from four test locations (MTP14, MTP14N2, MTP 17 and MTP19) (Map 11c). These artefacts are discussed in detail in Section 10 and artefact catalogues are presented in Appendix 6.

9.4.2 Stratigraphy

The stratigraphic profiles encountered during the complex assessment were consistent with the identified geological mapping of the activity area, consisting of relatively shallow silty clay soils derived from basalt bedrock (Neo) (Map 6). Variation in the stratigraphy and soil character accompanied geomorphological and microtopographic variation within the activity area with hill containing slightly shallower profiles resulting from colluvial sediment removal, while the plain landform profiles were typical of in-situ soil formation. The creekline profiles demonstrate slightly greater diversity in depth and composition, which is consistent with soils associated with dynamic geomorphological processes such as streams. The typical stratigraphic profile of each landform, as defined by the TPs, is presented below and in Table 12.

Plain

TP04, TP07, TP08, TP09, TP10 are within the Plain landform, with the stratigraphy in this landform showing a uniform character with Context 1 comprised of clayey silt with small infrequent basalt inclusions ranging from 10 mm to 70 mm overlying Context 2, which is the sterile base clay. Context 2 in TP08 is the only TP containing small infrequent quartz inclusions, with the remaining TPs containing gravel and basalt. The maximum depth of the plain landform was encountered in TP07 at 140 mm. The stratigraphy of the Plain landform encountered during the complex assessment is consistent with the results of CHMP #12847 complex assessment.

Hill

TP03 is within the hill landform, with the stratigraphy in this landform showing a uniform character with Context 1 comprised of silty clay containing evidence of disturbance merging with Context 2, a sterile base comprised of mid greenish-brown medium, dry clay with a rocky basalt base, consistent with previous subsurface investigations of this landform. The maximum depth of the hill landform was encountered in TP03 at 70 mm.

Creekline

TP05, TP06 and TP06-2 are within the Creekline landform, with the stratigraphy in this landform showing a uniform character with Context 1 comprised of a mid brown, wet clayey silt with moderate infrequent basalt and frequent gravel overlying Context 2, which is the sterile base clay, albeit with

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variation in the depths of the deposits. This context contained small basalt inclusions. The maximum depth of the creekline landform was seen in TP05 at 150mm. The stratigraphy of the creekline landform is consistent with the results of previous subsurface investigations.

The coordinates of all test locations excavated within the activity area appear in Appendix 4.

9.4.3 Surface Artefacts

No surface artefacts were located during the complex assessment.

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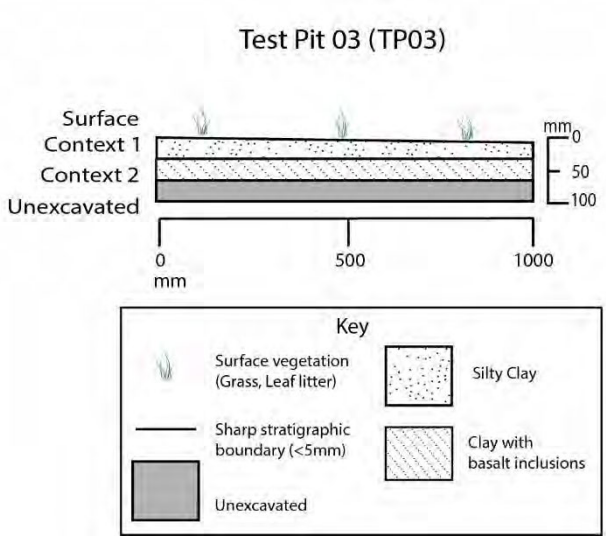
Table 12: Test Pits Excavated within the Activity area (Map 11)

TP (SW) Coordinates	Stratigraphic Profile	Stratigraphic Description
TP03– Hill Landform		
E 318038.6781 N 5839920.503 (GDA 94, Zone 55)	 **Figure 5:** Stratigraphic Profile of TP03	*Context 1*: 0 to 30 mm – Mid greyish brown, firm, dry, medium, silty clay. Frequent small organic matter. Merging transition. Munsell 7.5YR 2.5/2, pH 6. *Context 2 (Base)*: 30 to 70 mm: Mid, greenish brown, compacted, dry, medium clay. Moderate medium basalt inclusions. Munsell 7.5YR 2.5/2, pH 6. Considered to be sterile clay base.
Location & Size	**TP Photograph**	**Place Name and Assemblage Details**
1 x 1 m	 **Plate 44:** Stratigraphy of TP03 north section (C. Gamble 26.03.2024).	No artefacts present

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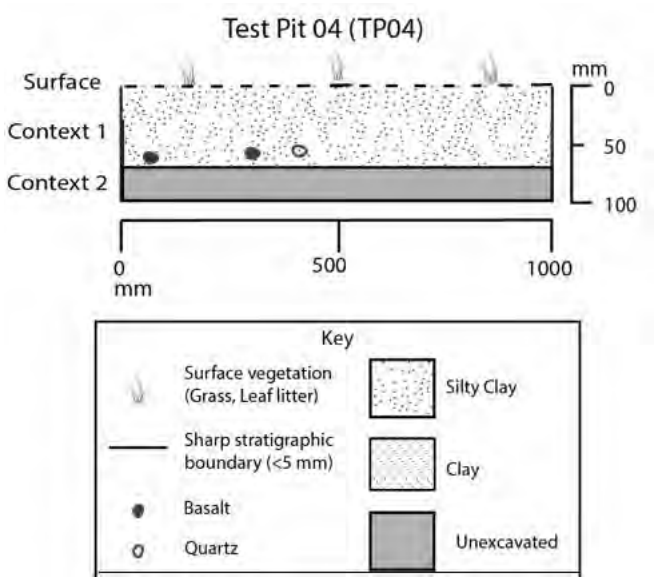
TP (SW) Coordinates	Stratigraphic Profile	Stratigraphic Description
TP04– Plain Landform		
E 320584.7383 N 5842770.049 (GDA 94, Zone 55)	 **Figure 6:** Stratigraphic Profile of TP04	*Context 1*: 0 to 70 mm – Mid, greyish brown, firm, dry, fine silty clay. Small frequent organic matter and small infrequent basalt. Munsell 10YR 4/1 pH 7. *Context 2 (Base)*: 70 mm +: Mid, greyish brown, compacted, dry, medium clay. Small infrequent quartz pebbles, moderate small and medium basalt inclusions. Munsell 7.5YR 3/1 pH 6. Considered to be sterile clay base.
Location & Size	**TP Photograph**	**Place Name and Assemblage Details**
1 x 1 m	 **Plate 45:** Stratigraphy of TP04 north section (C. Gamble 26.03.2024).	No artefacts present

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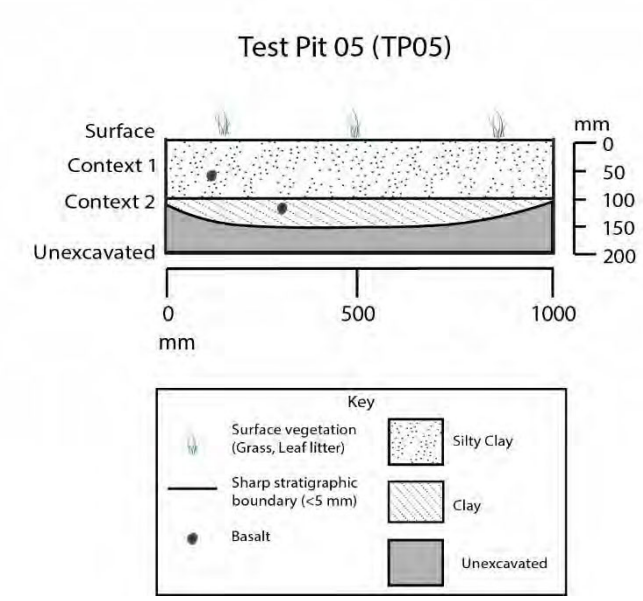
TP (SW) Coordinates	Stratigraphic Profile	Stratigraphic Description
TP05– Creekline Landform		
E 319307.6744 N 5838927.91 (GDA 94, Zone 55)	 **Figure 7:** Stratigraphic Profile of TP05	*Context 1*: 0 to 100 mm – Mid brown, friable, wet, fine clayey silt. Frequent inclusions of organic matter, moderately frequent inclusions of small basalt stones. Munsell 5YR 3/1, pH 6. *Context 2 (Base)*: 100 to 150 mm: Light, greyish brown, compacted, wet, fine clay. Infrequent moderate basalt inclusions. Munsell 7.5YR 4/1, pH 6 1/2. Considered to be sterile clay base.
Location & Size	**TP Photograph**	**Place Name and Assemblage Details**
1 x 1 m	 **Plate 46:** Stratigraphy of TP05 north section (C. Gamble April 2024).	No artefacts present

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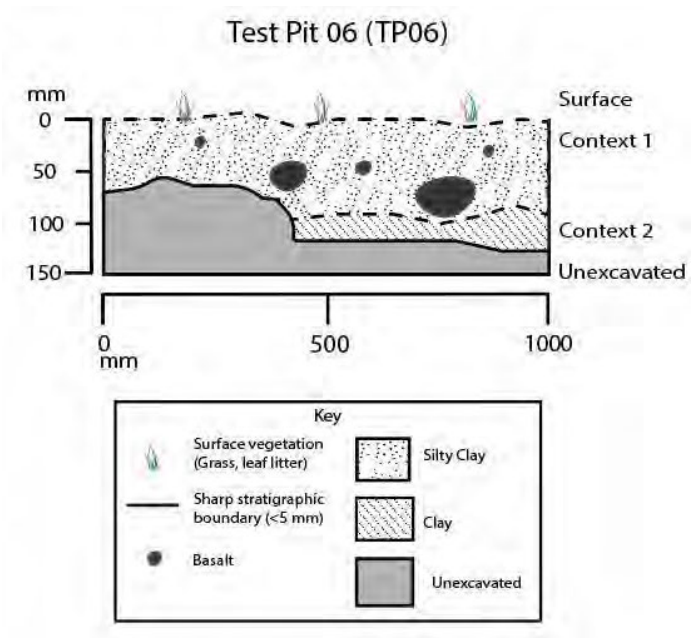
TP (SW) Coordinates	Stratigraphic Profile	Stratigraphic Description
TP06– Creekline Landform		
E 319300.4819 N 5838909.375 (GDA 94, Zone 55)	 **Figure 8:** Stratigraphic Profile of TP06	*Context 1*: 0 to 100 mm: Mid, brown, firm, wet, medium, clayey silt. Frequent small organic matter, frequent small and medium gravel, frequent large and medium basalt inclusions. Munsell 7.5YR 3/1, pH 8. *Context 2 (Base)*: 100 to 130 mm: Light, greyish brown, compacted, wet, fine clay. Moderate small gravel, moderate small, crushed basalt. Undulating clay base. Munsell 10YR 3/2, pH 7.
Location & Size	**TP Photograph**	**Place Name and Assemblage Details**
1 x 1 m	 **Plate 47:** Stratigraphy of TP06 north section (C. Gamble 03.04. 2024).	No artefacts present

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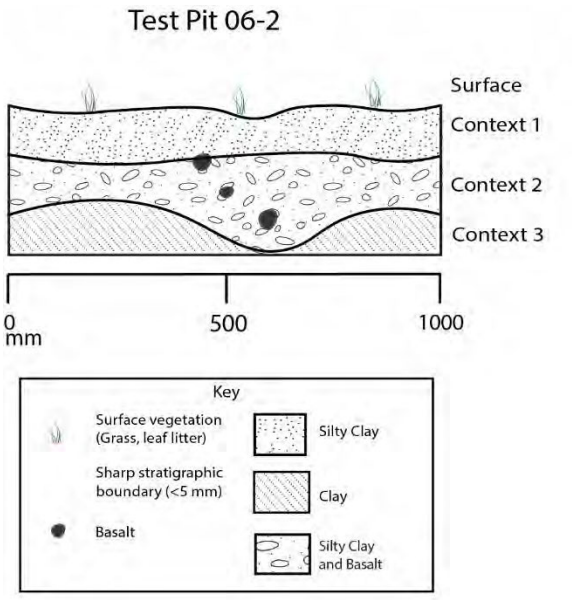
TP (SW) Coordinates	Stratigraphic Profile	Stratigraphic Description
TP06-2- Creekline landform		
E 31933.29 N 583909.04 (GDA 94, Zone 55)	 **Figure 9:** Stratigraphic Profile of TP06-2	Context 1: 0 to 60 mm – Mid greyish brown, firm, moist, fine silty clay. Frequent small organic matter, gravel, large rocks. Munsell 7.5YR 3/1, pH 7. Context 2: 60 to 150 mm: firm, moist, fine silty clay. Frequent gravel and large rocks. Munsell 10YR 3/3, pH 7. Considered to be sterile clay base. Context 3 (*Base*): 150 to 200 mm: Mid, greenish brown, compacted, dry, medium clay. Large rocks set into undulating clay. Former soil contamination borehole present in base. Munsell 10 YR 3/2, pH 6.5. Considered to be sterile clay base.
Location & Size	**TP Photograph**	**Place Name and Assemblage Details**
1 x 1 m	 **Plate 48:** Stratigraphy of TP06-2 north section (I. Ostericher 28.08.2025).	No artefacts present

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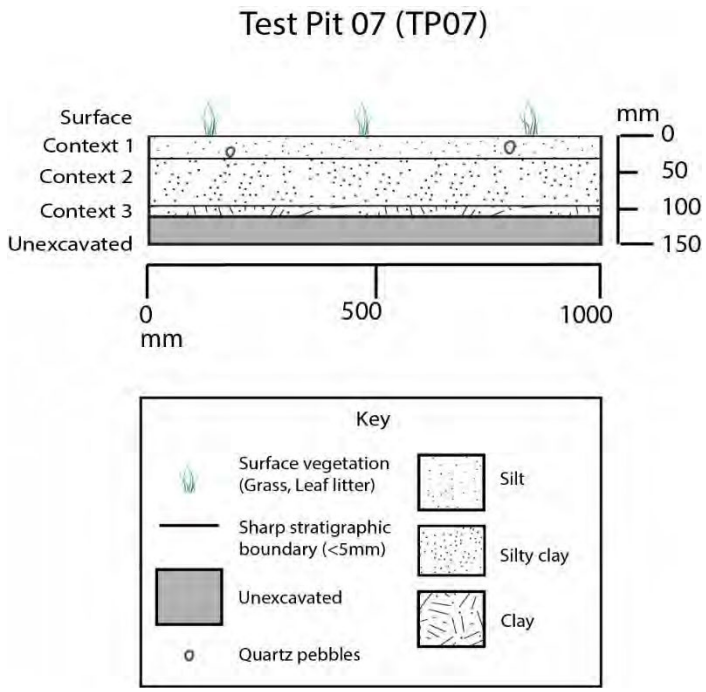
TP (SW) Coordinates	Stratigraphic Profile	Stratigraphic Description
	TP07– Plain Landform	
E 320151.1574 N 5841438.629 (GDA 94, Zone 55)	 **Figure 10:** Stratigraphic Profile of TP07	*Context 1*: 0 to 30 mm – Light brownish grey, friable, dry, medium silt. Frequent medium-sized organic matter, moderately frequent small quartz pebble inclusions, historic inclusions - glass. Munsell 7.5YR 4/1, pH 6. *Context 2*: 30 to 100 mm: Mid, brownish grey, firm, dry, coarse silty clay. Moderate small organic matter inclusions. Munsell 7.5YR 3/1, pH 5 1/2. *Context 3 (Base)*: 100 to 110 mm: Mid, greyish brown, compacted, dry, fine clay. No inclusions. Munsell 10Yr 3/1, pH 5. Considered to be sterile clay base.
Location & Size	**TP Photograph**	**Place Name and Assemblage Details**
1 x 1 m	 **Plate 49:** Stratigraphy of TP07 north section (C. Gamble 21.11. 2024).	No artefacts present

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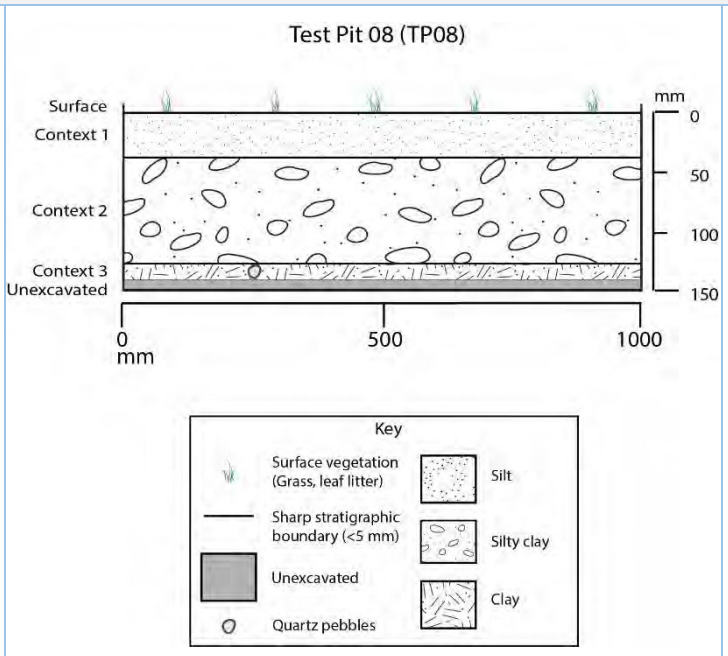
TP (SW) Coordinates	Stratigraphic Profile	Stratigraphic Description
TP08– Plain Landform		
E 320602.3863 N 5842788.485 (GDA 94, Zone 55)	 **Figure 11:** Stratigraphic Profile of TP08	*Context 1*: 0 to 40 mm - Light, brownish grey, friable, dry, medium silt. Frequent small organic matter inclusions. Munsell 7.5YR 4/1, pH 6. *Context 2*: 40 to 130 mm: Mid, brownish black, firm, dry, coarse silty clay. Frequent small gravel inclusions. Munsell 7.5YR 3/1, pH 5 1/2. *Context 3 (Base)*: 130 to 140 mm: Dark, black, compacted, dry, medium clay. Infrequent small quartz pebble inclusions. Munsell 10YR 3/1, pH 5. Considered to be sterile clay base.
Location & Size	**TP Photograph**	**Place Name and Assemblage Details**
1 x 1 m	 **Plate 50:** Stratigraphy of TP08 north section (C. Gamble 23.11.2024).	No artefacts present

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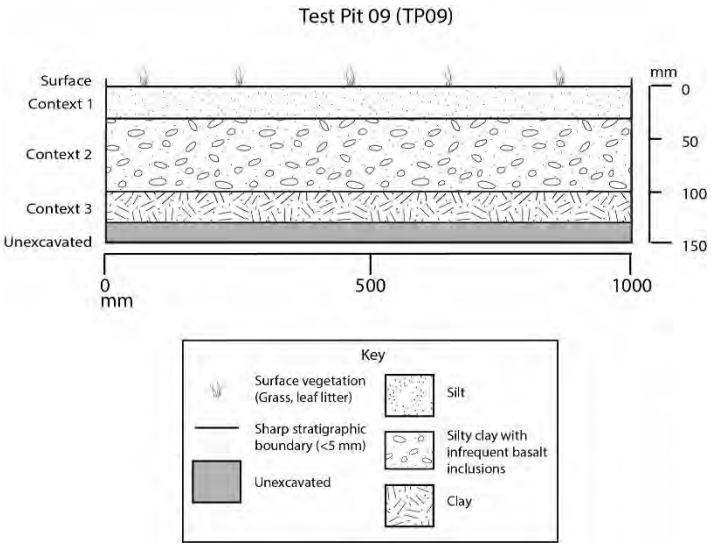
TP (SW) Coordinates	Stratigraphic Profile	Stratigraphic Description
TP09– Plain Landform		
E 319125.2245 N 5838357.196 (GDA 94, Zone 55)	 **Figure 12:** Stratigraphic Profile of TP09	*Context 1*: 0 to 30 mm: Light, grey, firm, moist, medium silt. Frequent medium organic matter, moderate small gravel inclusions. Munsell 10YR 3/2, pH 5. *Context 2*: 30 to 100 mm: Mid, brown, compacted, dry, medium silty clay. Infrequent small basalt, moderate small gravel inclusions. Munsell 10YR 4/2, pH 5 1/2. *Context 3 (Base)*: 100 to 130 mm: Light, greyish brown, cemented, dry, fine clay. No inclusions. Base Clay. Munsell 10YR 5/2, pH 5. Considered to be sterile clay base.
Location & Size	**TP Photograph**	**Place Name and Assemblage Details**
1 x 1 m	 **Plate 51:** Stratigraphy of TP09 north section (C. Gamble 26.11.2024).	No artefacts present

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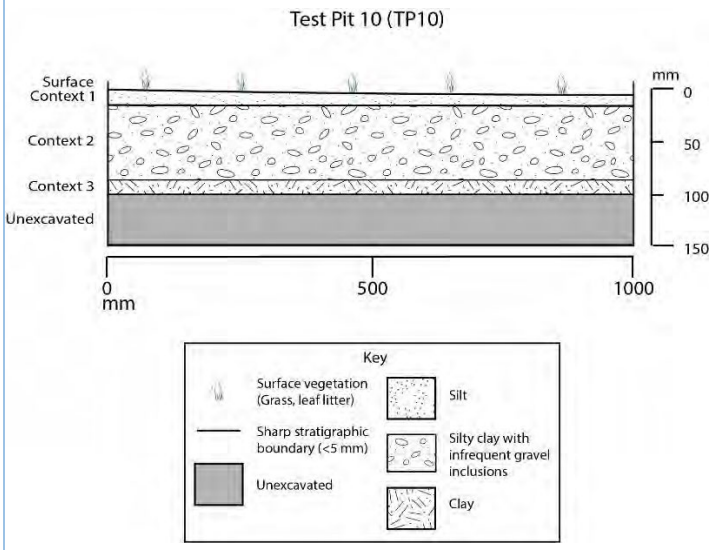
TP (SW) Coordinates	Stratigraphic Profile	Stratigraphic Description
TP10– Plain Landform		
E 319119.8889 N 5838342.186 (GDA 94, Zone 55)	 **Figure 13:** Stratigraphic Profile of TP10	*Context 1*: 0 to 10 mm: Mid, greyish brown, firm, moist, medium silt. Frequent medium organic matter inclusions. Munsell 10Yr 3/2, pH 6 1/2. *Context 2*: 10 to 90 mm: Mid, greyish brown, firm, dry, fine silty clay. Moderate small gravel inclusions. Munsell 10YR 4/2, pH 7. *Context 3 (Base)*: 90 to 100 mm: Light, greyish brown, compacted, dry, fine clay. No inclusions. 7.5YR 4/1, pH 6. Considered to be sterile clay base.
Location & Size	**TP Photograph**	**Place Name and Assemblage Details**
1 x 1 m	 **Plate 52:** Stratigraphy of TP10 north section (C. Gamble 26.11.2024).	No artefacts present

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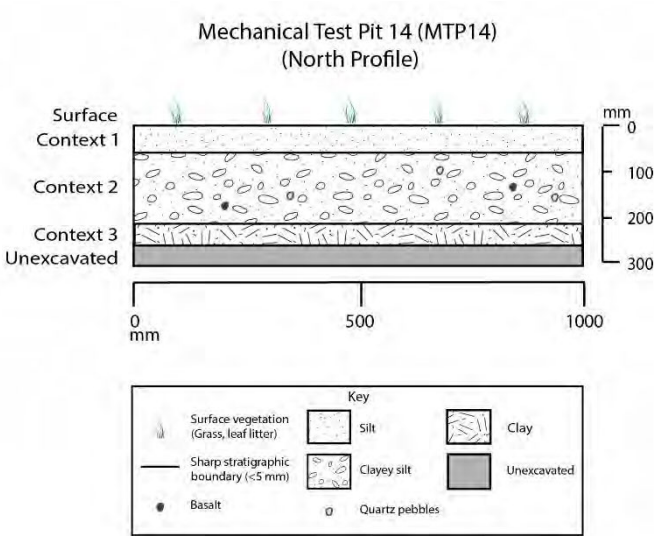
Table 13: Positive Mechanical Test Pits Excavated within the Activity area (Map 10).

MTP (SW) Coordinates	Stratigraphic Profile	Stratigraphic Description
MTP14 – Plain Landform		
E 319282.9378 N 5839751.419 (GDA 94, Zone 55)	 **Figure 14:** Stratigraphic Profile of MTP14	*Context 1*: 00 to 60 mm—Medium, brownish grey, friable, moist, medium silt. Moderate small organic matter and infrequent small green and white plastic inclusions. One artefact. Munsell 7.5 YR 4/2 pH 4.5. *Context 2*: 60 to 200 mm—Light, greyish brown, weak, dry, medium, clayey silt. Infrequent small plastic, infrequent small basalt, moderate small gravel, infrequent small quartz pebble inclusions. One artefact. Munsell 7.5 YR 5/2, pH 5. *Context 3 (Base)*: 200 to 250 mm—Dark, orangish brown, compacted, dry, fine clay. Infrequent small gravel inclusions. Munsell 7.5 YR 4/1, pH 6. Considered to be sterile clay base.
Location & Size	**TP Photograph**	**Place Name and Assemblage Details**
5 x 1 m	 **Plate 53:** Stratigraphy of MTP14 north section (C. Gamble 28.02.2024)	VAHR 7822-4957 (Aurora to Summerhill LDAD) 3 subsurface artefacts: • 1x silcrete; • 2 x quartzite. Depths ranging from 100 mm to 200 mm

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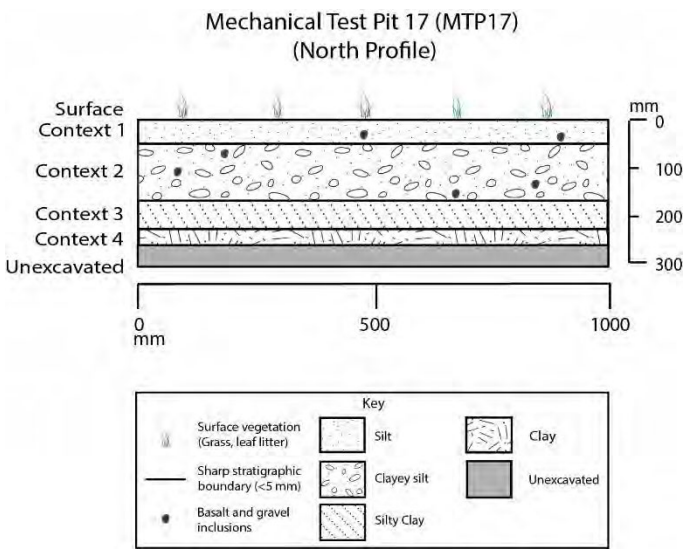
MTP (SW) Coordinates	Stratigraphic Profile	Stratigraphic Description
MTP17 – Plain Landform		
E 318762.6102 N 5837254.78 (GDA 94, Zone 55)	 **Figure 15:** Stratigraphic Profile of MTP17	*Context 1*: 00 to 50 mm—Light, reddish yellow, firm, dry, fine silty clay. Frequent small organic matter, infrequent small basalt rocks, infrequent small gravel inclusions. Three artefacts. Munsell 10YR 3/1 pH 6. *Context 2*: 50 to 170 mm—Light, reddish yellow, firm, dry, medium, clayey silt. Moderate small gravel inclusions. Munsell 10YR 2/2, pH6 *Context 3*: 170 to 240 mm—Medium, yellowish black, firm, dry, medium silty clay. Moderate small and medium gravel rocks inclusions. Munsell 10YR 3/1 pH 6.5. *Context 4 (Base Clay)*: 240 to 270 mm—Medium, reddish black, compacted, moist, fine clay. No inclusions. Munsell 10YR 2/1, pH 7. Considered to be sterile clay base. *No Artefacts present*
Location & Size	**TP Photograph**	**Place Name and Assemblage Details**
5 x 1 m	 **Plate 54:** Stratigraphy of MTP17 north section (C. Gamble 19.11.2024)	VAHR 7822-4957 (Aurora to Summerhill LDAD) 3 subsurface artefacts: • 1 x silcrete; • 2 x quartzite. Depths ranging from 0 mm to 50 mm

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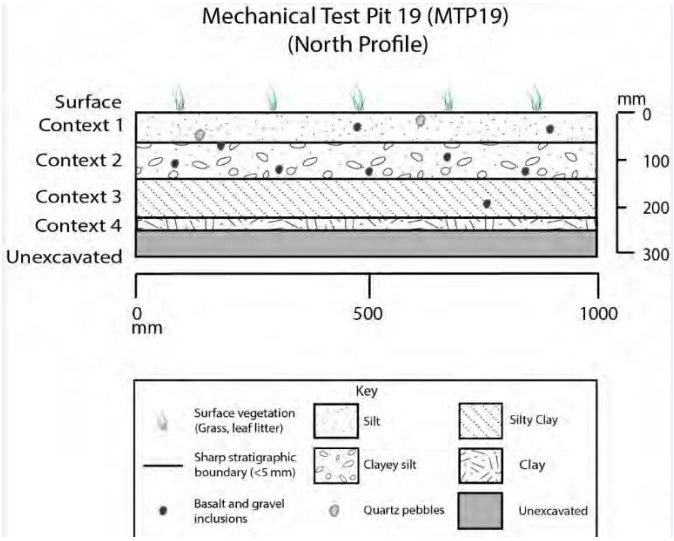
MTP (SW) Coordinates	Stratigraphic Profile	Stratigraphic Description
MTP19 – Plain Landform		
E 320106.9016 N 5841417.247 (GDA 94, Zone 55)	 **Figure 16:** Stratigraphic Profile of MTP19	*Context 1*: 00 to 60 mm—Light, brownish grey, friable, dry, fine silt. Frequent medium organic matter, moderate small quartz pebbles, infrequent small historical inclusions. Munsell 10YR 4/2, pH 5 1/2. *Context 2*: 60 to 140 mm—Medium, brownish grey, firm, dry, coarse, silty clay. Frequent small gravel and frequent medium basalt inclusions. One artefact. Munsell 10YR 4/2, pH 5. *Context 3*: 140 to 230 mm—Medium, greyish brown, dry, medium silty clay. Moderate small gravel inclusions. One artefact. 10YR 3/1, pH 6. *Context 4 (Base Clay)*: 230 to 250 mm—Medium, reddish brown, compacted, dry, fine clay. No inclusions. Munsell 10YR 2/1, pH 7. Considered to be sterile clay base.
.Location & Size	**TP Photograph**	**Place Name and Assemblage Details**
5 x 1 m	 **Plate 55:** Stratigraphy of MTP19 north section (C. Gamble 21.11.2024)	VAHR 7822-4957 (Aurora to Summerhill LDAD) 2 subsurface artefacts: • 1 x quartz; • 1 x silcrete. Depths ranging from 60 mm to 230 mm

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Table 14: Positive Radial Test Pits Excavated within the Activity area (Map 11).

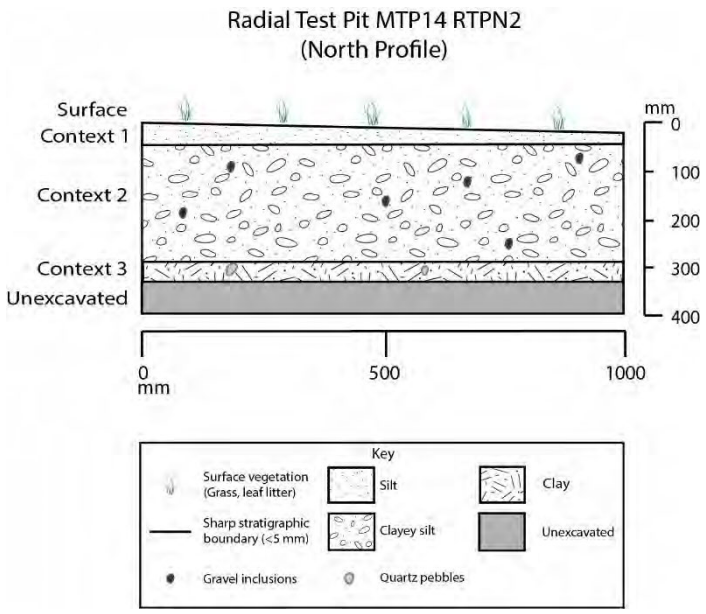
RTP (SW) Coordinates	Stratigraphic Profile	Stratigraphic Description
MTP14 N2 – Plain Landform		
E 319286.9277 N 5839765.99 (GDA 94, Zone 55)	 **Figure 17:** Stratigraphic Profile of MTP14 N2	*Context 1*: 00 to 50 mm—Medium, brownish grey, friable, moist, medium, silt. Moderate small and medium organic matter inclusions. Munsell 10YR 5/1, pH 5 1/2. *Context 2:* 50 to 300 mm—Light, greyish brown, weak, dry, medium clayey silt. Moderate small gravel inclusions. Two artefacts. Munsell 10YR 5/2, pH 5. *Context 3 (Base)*: 300 to 340 mm—Dark, orangish brown, compacted, dry, fine clay. Infrequent small gravel inclusions. 10YR 5/2, pH 5. Considered to be sterile clay base.
Location & Size	**TP Photograph**	**Place Name and Assemblage Details**
2 x 1 m	 **Plate 56:** Stratigraphy of MTP14 N2 north section (C. Gamble, 03.03 2024)	VAHR 7822-4957 (Aurora to Summerhill LDAD) Two subsurface artefacts: 1 x quartz; 1 x silcrete Depths ranging from 200 mm to 300 mm

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Table 15: Negative Mechanical Test Pits Excavated within the Activity area (Map 11).

MTP Descriptions: Stratigraphy and Inclusions			
MTP06 *Context 1*: 00 to 60 mm— Light, greyish brown, firm, dry, fine, silty clay. Infrequent medium introduced quartz, Infrequent small ironstone, one glass fragment, *Context 2 (Base)*: 60 to 130 mm— Light, orangish brown, compacted, moist, fine, clay. No inclusions. Deposit was too compact for excavator. Considered to be sterile clay base. *No artefacts present*	MTP09 *Context 1 (Base)*: 00 to 30 mm—Light, greyish brown, weak, dry, medium, silt. Small infrequent inclusions of ceramic fragments. Sterile base not reached and excavation ceased due to the presence of asbestos. *No artefacts present*	MTP10 *Context 1 (Base)*: 00 to 90 mm—Light, greyish brown, weak, dry, medium, silt. Infrequent inclusions of small ironstone pebbles. Sterile base not reached and excavation ceased due to the presence of asbestos. *No artefacts present*	MTP11 *Context 1 (Base)*: 00 to 100 mm— Light, greyish brown, weak Dry, medium, silt. Sterile base not reached and excavation ceased due to the presence of asbestos. *No artefacts present*
MTP12 *Context 1*: 00 to 60 mm— Light, greyish brown, weak, dry, medium, silt. Moderate small organic matter inclusions. *Context 2*: 60 to 210 mm— Light, brown, friable, dry, fine, clayey silt. Infrequent small organic matter inclusions. *Context 3 (Base):* 210 to 290 mm— Light, greyish brown, compacted, moist, medium clay. Frequent small gravel inclusions. Considered to be sterile clay base. *No artefacts present*	MTP13 *Context 1*: 00 to 100 mm—Light, brownish grey, weak dry, silt. Moderate inclusions of small organic matter and black glass. *Context 2*: 100 to 240 mm—Light, greyish-brown, friable dry, medium, clayey silt. Infrequent small green glass, infrequent small medium quartz pebbles and basalt inclusions. *Context 3 (Base)*: 240 to 300 mm— Medium, Yellowish brown, firm, dry, fine, clay. Infrequent small basalt pebble inclusions. Considered to be sterile clay base. *No artefacts present*	MTP15 *Context 1*: 00 to 150 mm—Mid, brownish grey, firm, dry, medium, clayey silt. Frequent small organic matter, infrequent small basalt, frequent small and medium gravel inclusions. *Context 2*: 150 to 330 mm—Light, yellowish brown, compacted, dry, coarse, silty clay. Frequent small medium quart pebble inclusions. *Context 3 (Base)*: 330 to 500 mm—Dark, brownish black, cemented, moist, medium, clay. Infrequent large basalt boulder inclusions. Considered to be sterile clay base. *No artefacts present*	MTP16 *Context 1*: 00 to 50 mm—Mid, brownish brown, friable, moist, fine, clayey silt. Frequent small medium organic matter, infrequent small gravel, infrequent medium plastic, infrequent small brick inclusions. *Context 2*: 50 to 200 mm—Light, yellowish brown, firm, wet, medium/coarse, silty clay. Frequent small medium and large gravel, frequent medium basalt inclusions. Highly disturbed, area adjacent to railway corridor. *Context 3 (Base)*: 200 to 230 mm— Light, greyish brown, compacted, wet, medium, clay. Infrequent small and medium gravel, infrequent large basalt inclusions. Considered to be sterile clay base. *No artefacts present*

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MTP Descriptions: Stratigraphy and Inclusions			
MTP18 *Context 1*: 00 to 60 mm—Light, brownish grey, friable, dry, medium, silt, Frequent medium organic matter, moderate small quartz pebbles, infrequent small bone, infrequent small historical inclusions. *Context 2*: 60 to 180 mm—Mid, brownish black, firm, dry, coarse, silty clay. Frequent small gravel, frequent medium basalt inclusions. *Context 3 (Base)*: 180 to 210 mm—Dark, black, compacted, dry, medium, clay. Moderate small gravel inclusions. Considered to be sterile clay base. *No artefacts present*	**MTP21** *Context 1*: 00 to 100 mm—Mid, greyish brown, firm dry, fine, silt. Frequent medium, large basalt and organic matter inclusions. Gradual transition. *Context 2 (Base)*: 100 to 170 mm— Dark, brownish brown, compacted, dry, fine, clay. Moderate medium and large basalt inclusions. Considered to be sterile clay base. *No artefacts present*	**MTP22** *Context 1*: 0 to 200 mm—Mid, greyish brown, firm, dry, fine, silty clay. Frequent moderate and large organic matter, infrequent small glass and quartz river rolled inclusions. *Context 2 (Base)*: 200 to 250 mm— Dark, greyish brown, compacted, moist, medium, clay. Infrequent moderate and large basalt gravel/boulder inclusions. Considered to be sterile clay base. *No artefacts present*	**MTP23** *Context 1*: 00 to 10 mm—Dark, greyish brown, friable, dry, fine, silt. Infrequent small organic matter and gravel inclusions. *Context 2*: 10 to 250 mm— Dark, brownish black, firm, dry, fine, clay. Infrequent small glass, moderate large rock inclusions. *Context 3 (Base)*: 250 to 300 mm— Dark, brownish black, compacted, moist, fine, clay. Moderate large rock inclusions. Considered to be sterile clay base. *No artefacts present*
MTP26 Asbestos found in first scrape, MTP not completed. *No artefacts present*			

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Table 16: Negative Radial Test Pits Excavated within the activity area (Map 11)

RTP Descriptions: Stratigraphy and Inclusions			
MTP14 E1	MTP14 N1	MTP14 N3	MTP14 S1
Context 1: 0 to 95 mm—Mid, brownish grey, friable, moist, medium, silt. Infrequent to moderate small organic matter inclusions. *Context 2*: 95 to 195 mm—Light, greyish brown, weak, dry, medium, clayey silt. Infrequent to moderate small gravel inclusions. *Context 3 (Base)*: 195 to 235 mm— Dark orangish brown, compacted, dry, fine, clay. Infrequent small gravel inclusions. Considered to be sterile clay base. *No artefacts present*	*Context 1*: 00 to 50 mm—Mid, brownish grey, friable moist, medium silt. Moderate small and medium organic matter inclusions. *Context 2*: 50 to 200 mm—Light, greyish brown, weak, dry, medium, clayey silt. Infrequent small gravel inclusions. *Context 3 (Base)*: 200 to 250 mm— Dark, orangish brown, compacted, dry, fine, clay. Infrequent small gravel inclusions. Considered to be sterile clay base. *No artefacts present*	*Context 1*: 0 to 30 mm—Mid, brownish grey, friable, moist, medium, silt. Moderate small and medium organic matter inclusions. *Context 2*: 30 to 270 mm—Light, greyish brown, weak, dry, medium, clayey silt. Infrequent small gravel inclusions. *Context 3 (Base)*: 270 to 400 mm— Dark, orangish brown, compacted, dry, fine, clay. Infrequent small gravel inclusions. Considered to be sterile clay base. *No artefacts present*	*Context 1*: 00 to 110 mm—Mid, brownish grey, friable, moist, medium, silt. Moderate small medium organic matter inclusions. *Context 2*: 110 to 220 mm—Light, greyish brown, weak dry, medium, clayey silt. Moderate small gravel inclusions. *Context 3 (Base)*: 220 to 330 mm—Dark, orangish brown, compacted, dry, fine, clay. Infrequent small gravel and one natural quartz pebble inclusions. Considered to be sterile clay base. *No artefacts present*

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RTP Descriptions: Stratigraphy and Inclusions			
MTP14 W1 *Context 1*: 0 to 60 mm—Mid, brownish grey, friable, moist, medium, silt. Moderate small and medium organic matter inclusions. *Context 2*: 60 to 300 mm—Light, greyish brown, weak, dry, medium, clayey silt. Moderate small gravel inclusions. *Context 3 (Base)*: 300 to 320 mm— Dark, orangish brown, compacted, dry, fine clay. Infrequent small gravel inclusions. Considered to be sterile clay base. *No artefacts present*	MTP17RN1 *Context 1*: 00 to 50 mm—Mid, greyish brown, friable, moist, medium, silt. gradual transition. Frequent large grassroots, one glass fragment inclusions.. *Context 2*: 50 to 200 mm—Dark, brownish grey, firm, moist, medium, clayey silt. One glass fragment, moderate medium and large gravel and basalt inclusions. Gradual transition. *Context 3 (Base)*: 200 to 240 mm—Dark, brownish black, compacted, moist, medium, clay. Moderate large basalt inclusions. Considered to be sterile clay base. *No artefacts present*	MTP17RE1 *Context 1*: 00 to 20 mm—Mid, greyish brown, friable, dry, fine, silt. Moderate small organic matter. *Context 2 (Base)*: 20 to 100 mm— Dark, brownish black, firm, moist, fine, clay. Infrequent medium rock inclusions. Considered to be sterile clay base. *No artefacts present*	MTP17RS1 *Context 1*: 00 to 10 mm—Mid, brownish grey, friable, moist, medium, silt. Moderate small medium organic matter inclusions. *Context 2 (Base)*: 10 to 100 mm—Dark, orangish brown, firm, moist, fine, clay. Moderate large rocks and boulder inclusions. Considered to be sterile clay base. *No artefacts present*
MTP17RW1 *Context 1*: 0 to 10 mm—Mid, brownish black, friable, moist, fine, clayey silt. Moderate small organic matter inclusions. *Context 2 (Base)*: 10 to 100 mm— Dark, brownish black, compacted, firm, fine clay. Infrequent large rock inclusions. Considered to be sterile clay base. *No artefacts present*	MTP19RE1 *Context 1*: 00 to 50 mm—Mid, greyish brown, friable, dry, fine, silt. Moderate small organic matter. *Context 2*: 20 to 150 mm—Mid, greyish brown, firm, moist, fine, clayey silt. Infrequent small gravel inclusions. *Context 3 (Base)*: 150 to 200 mm—Dark, greyish brown, firm, moist, fine, clay. No inclusions, Considered to be sterile clay base. *No artefacts present*	MTP19RN1 *Context 1*: 00 to 50 mm—Mid, greyish brown, friable, dry, fine, silt. Moderate small organic matter. *Context 2*: 50 to 200 mm—Mid, greyish brown, firm, moist, fine, silt. Infrequent medium ceramic and glass inclusions. *Context 3 (Base)*: 200 to 260 mm— Dark, greyish brown, firm, moist, fine, clay. No inclusions. Considered to be sterile clay base. *No artefacts present*	MTP19RS1 *Context 1*: 0 to 10 mm—Mid, greyish brown, friable, dry, fine, silt. Moderate small organic matter and gravel inclusions. *Context 2*: 10 to 150 mm—Light, greyish orangish brown, firm, moist, fine, clayey silt. Infrequent small ballast and ceramic inclusions. *Context 3 (Base)*: 150 to 200 mm— Mid, greyish orangish brown, firm, moist, fine, clay. Infrequent small ballast inclusions. Considered to be sterile clay base. *No artefacts present*

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9.5 Complex Assessment – Summary of Results and Conclusions

The full details of all Aboriginal cultural heritage present within the activity area are presented in Section 10.

The stratigraphy of the activity area is consistent with being located within the geological unit of Neo Newer Volcanics of the Victorian Volcanic Plain. The stratigraphic profiles encountered are consistent with the results of the complex assessment conducted for CHMP 12847 (Goldfarb and Hill 2014: 55 - 58), finding shallow profiles of silt and silty clay overlying compact sterile base clay or basalt rocks and boulders. Inclusions were similar in nature, with test locations including basalt pebbles and rocks of varying size and introduced post-contact materials of glass, ceramic and, in the case of this CHMP, asbestos.

The complex assessment was designed to test for the presence or absence of Aboriginal cultural heritage in areas of Aboriginal archaeological potential. The complex assessment program resulted in the identification of one new Aboriginal Place, VAHR 7822-4957 (Aurora to Summerhill LDAD). In total, there are two Aboriginal Places in the activity area: the previously registered VAHR 7822-1574 (Craigieburn Bypass 6) and the new VAHR 7822-4957 (Aurora to Summerhill LDAD) (Map 12). The artefacts are made of silcrete, quartz and quartzite, which are all common raw materials in the region; in addition, there is one artefact made of tachylite, which is a stone of volcanic origin. This raw material is less common in assemblages in the region but is not unexpected.

The Aboriginal Place types found are consistent with the Place prediction statement made in the conclusion of the desktop assessment. The Places were identified in the plain landform within an area that retains mature native trees, and within areas of sensitivity associated with the waterways of Malcolm Creek and Merri Creek. The likelihood of Aboriginal Places being located near watercourses or on elevations has been supported by the results of the complex assessment.

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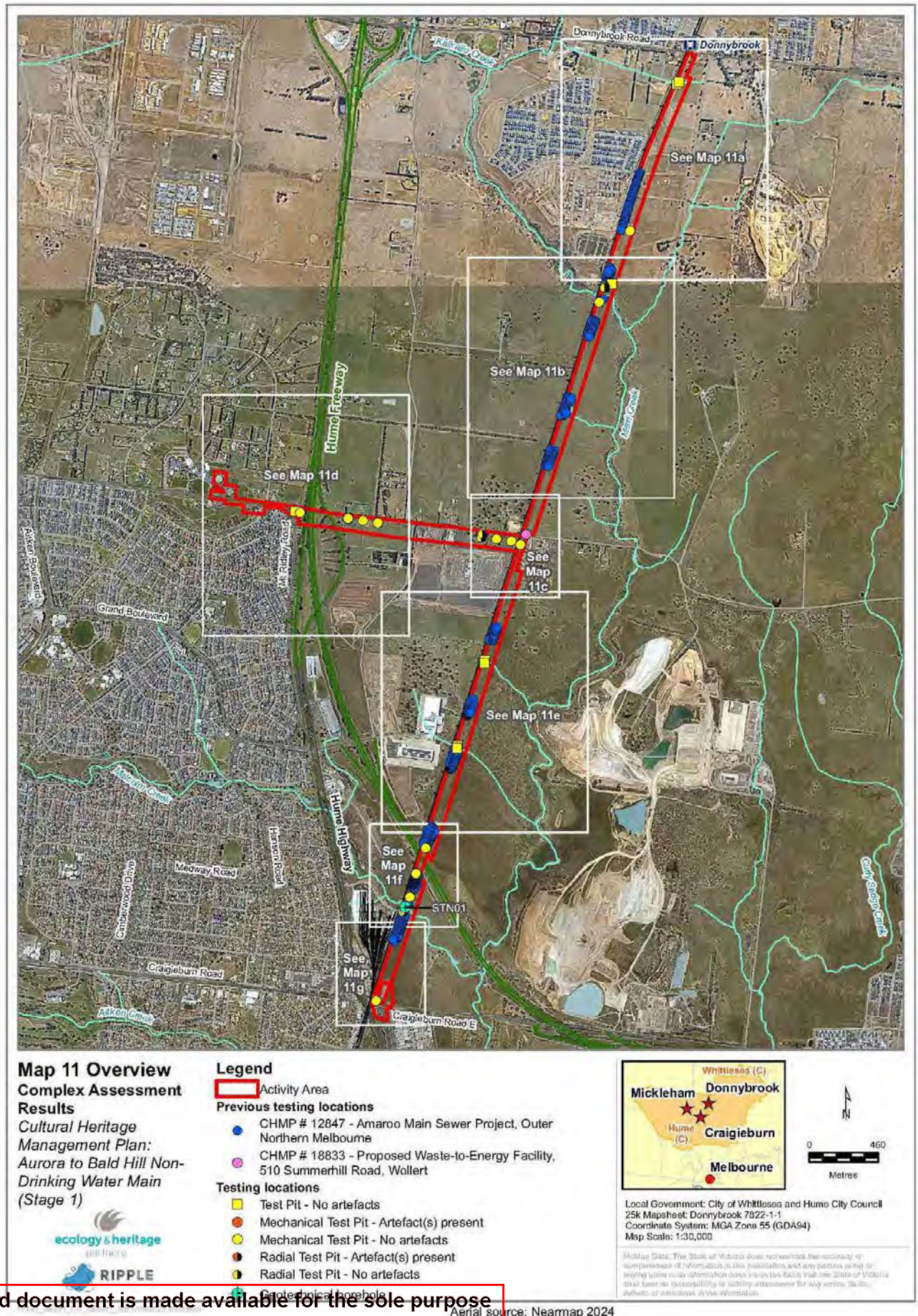

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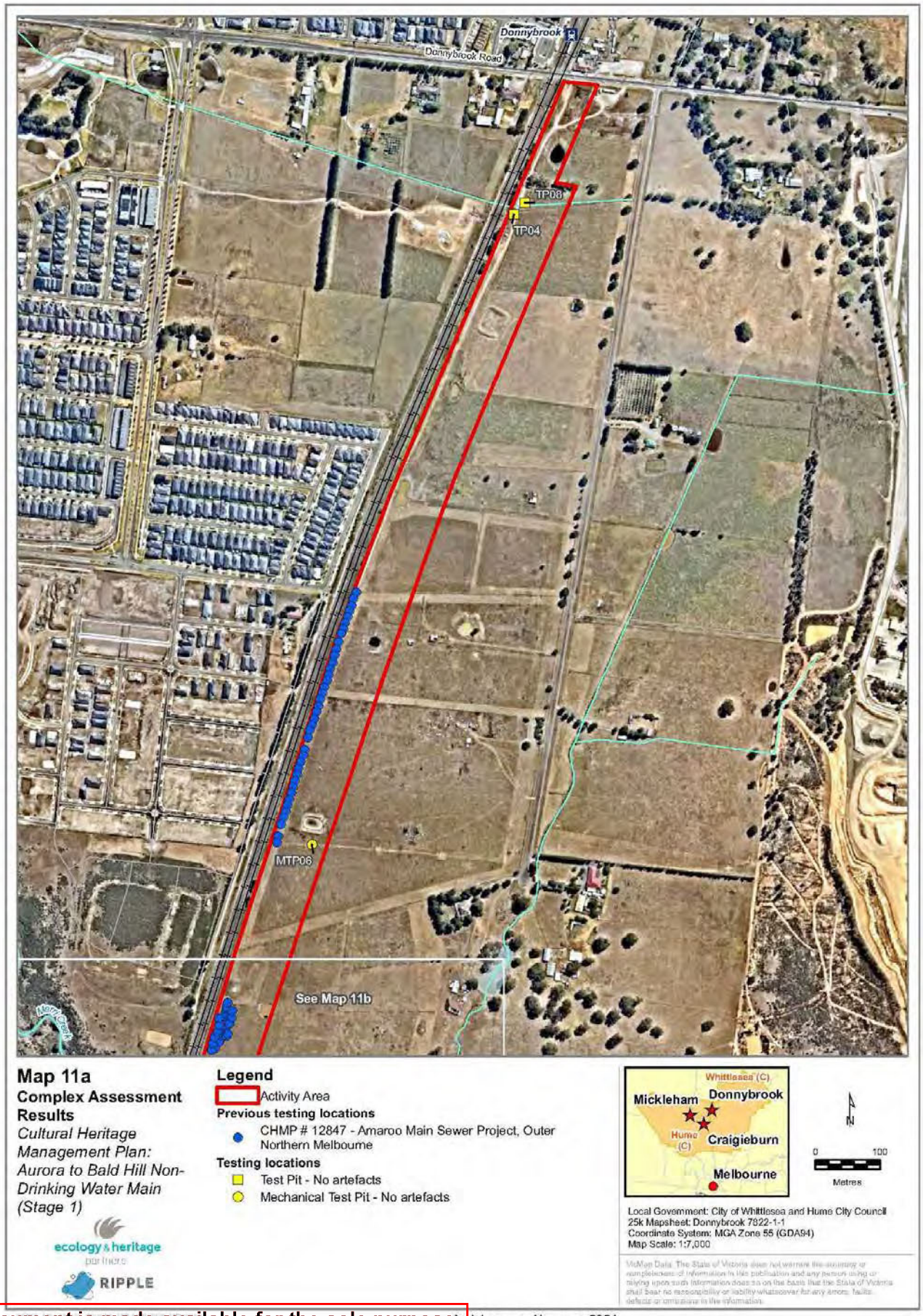

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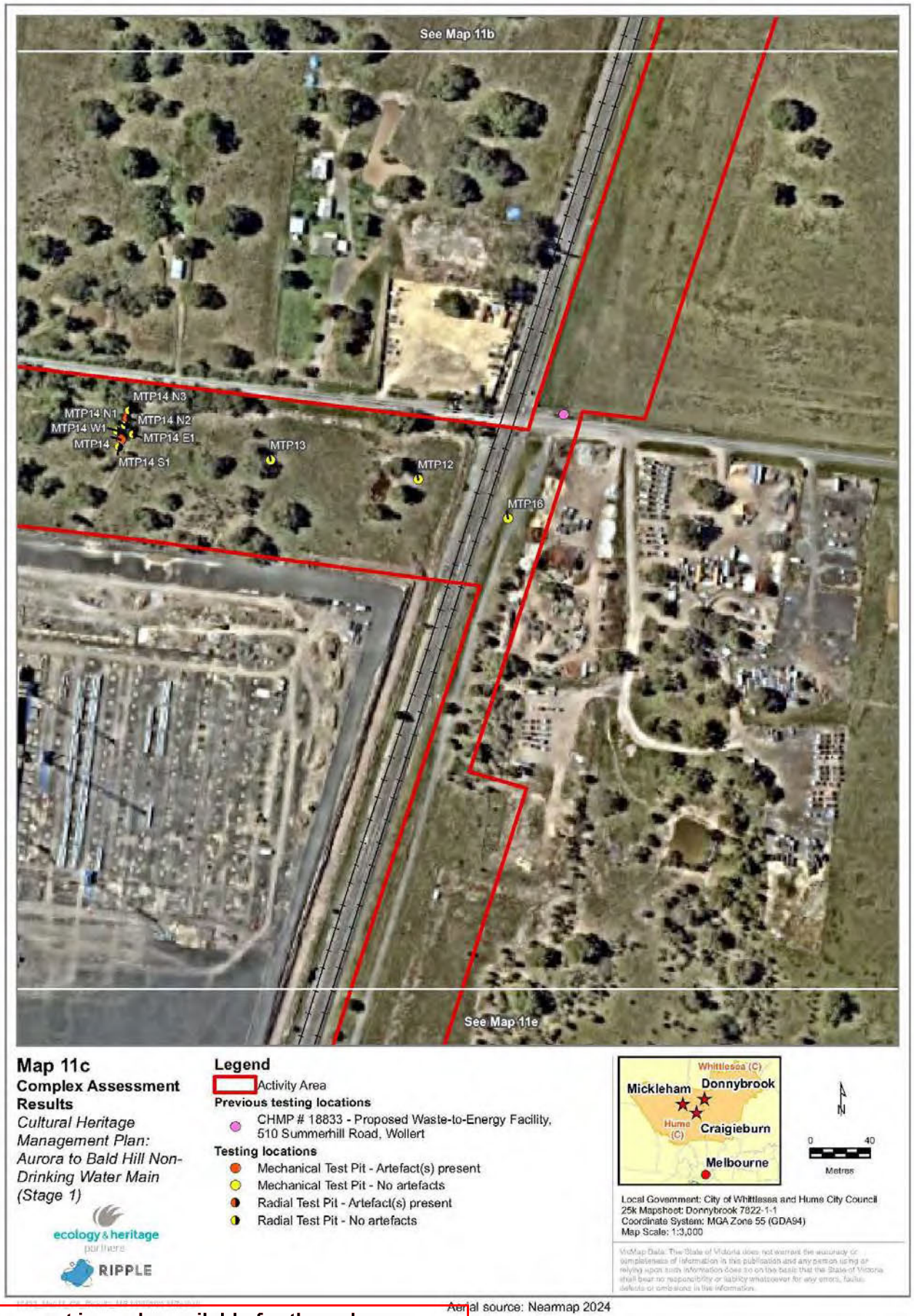

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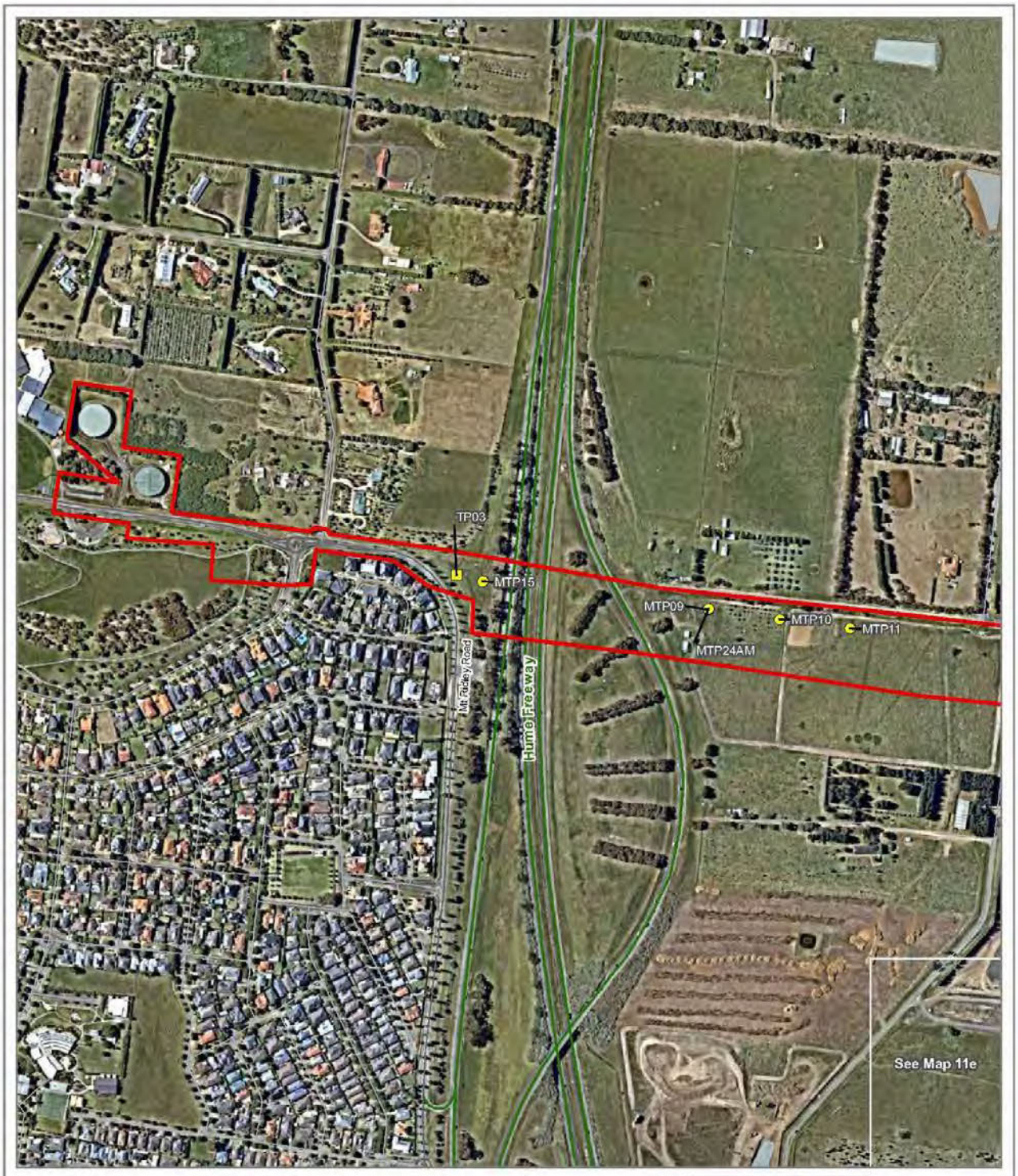

Map 11d
Complex Assessment Results
Cultural Heritage Management Plan: Aurora to Bald Hill Non-Drinking Water Main (Stage 1)

Legend
Activity Area
Testing locations
Test Pit - No artefacts
Mechanical Test Pit - No artefacts





Local Government: City of Whittlesea and Hume City Council
25k Mapsheet: Donnybrook 7822-1-1
Coordinate System: MGA Zone 55 (GDA94)
Map Scale: 1:7,000

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Aerial source: Nearmap 2024

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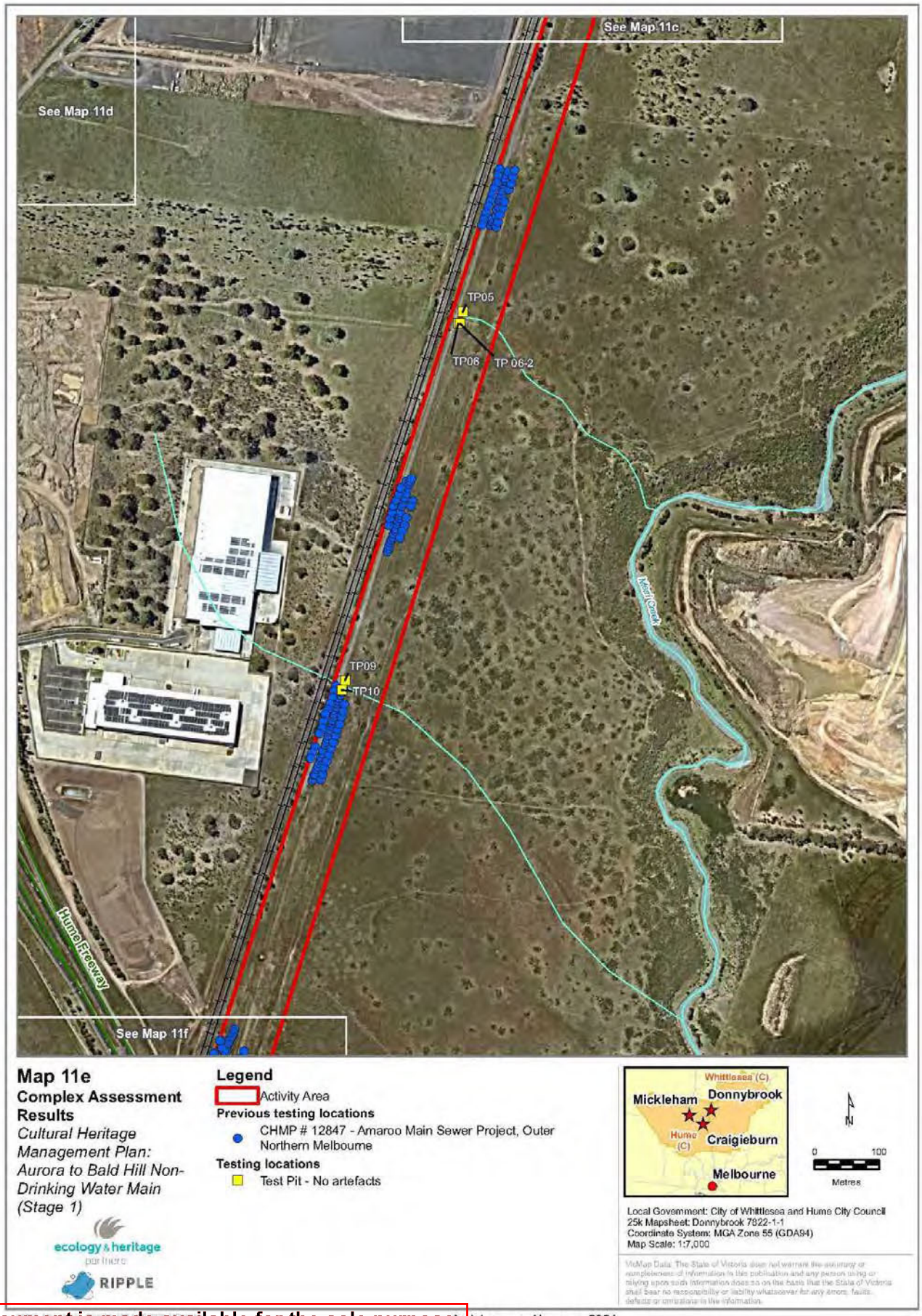

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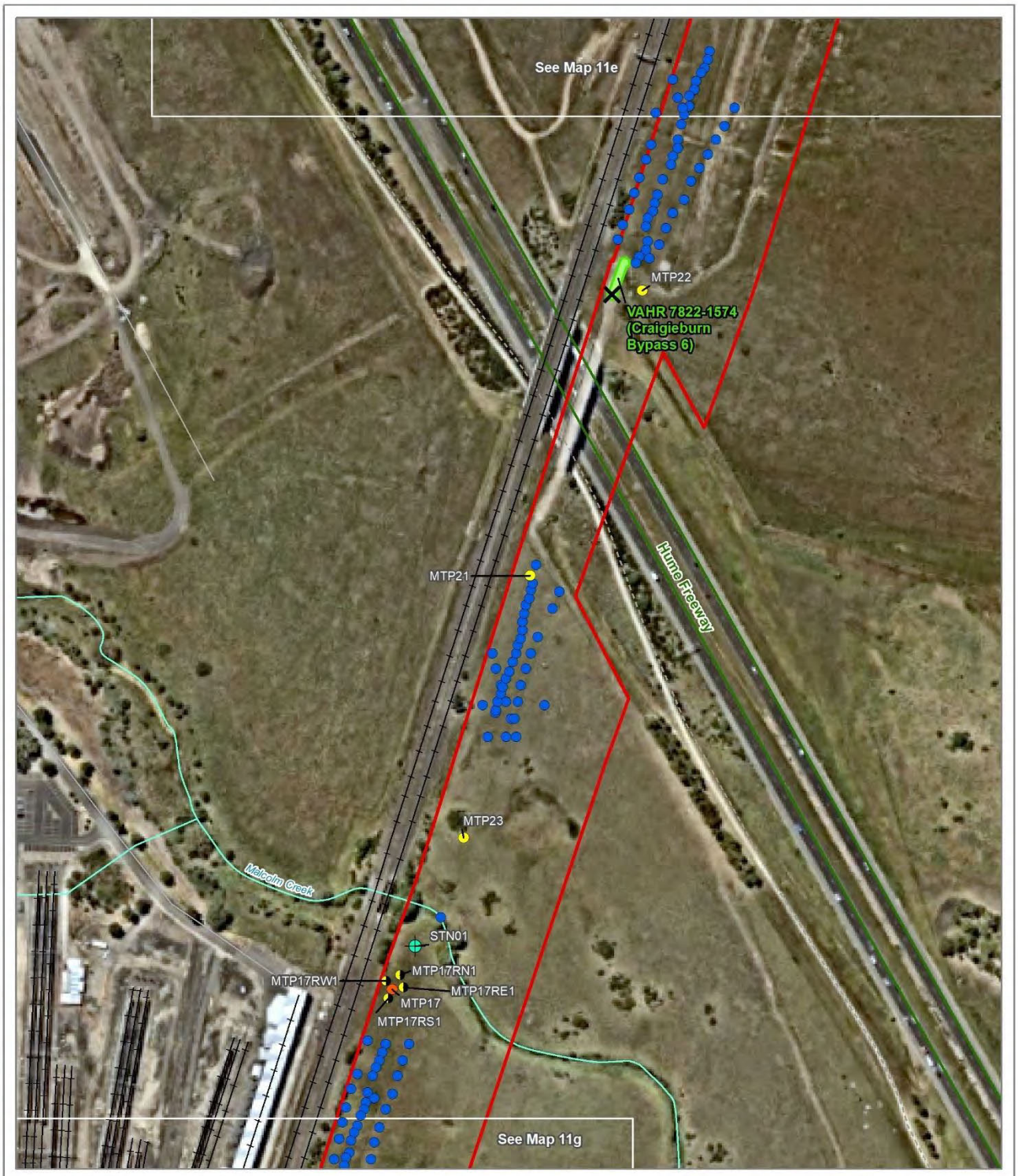

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10 DETAILS OF ABORIGINAL CULTURAL HERITAGE IN THE ACTIVITY AREA

10.1 Aboriginal Cultural Heritage in the Activity area

Two Aboriginal archaeological Places are located within the activity area (Map 12):

- VAHR 7822-1574 (CRAIGIEBURN BYPASS 6); and
- VAHR 7822-4957 (Aurora to Summerhill LDAD).

The Place gazetteer in Appendix 5 presents a summary for each Place and Appendix 6 presents a full artefact catalogue. A summary of Place attributes is presented in Section 10.2 and a detailed summary of each Place is individually presented in Sections 10.3 to 10.4.

The Place types identified are consistent with those expected following the desktop assessment and the formation of an Aboriginal Place prediction statement.

10.2 Assessment of the Aboriginal Cultural Heritage

The assessment of Aboriginal Cultural Heritage in the activity area was undertaken through the desktop, standard and complex assessments. The desktop assessment found that the previously recorded Places are present in the activity area, located on the volcanic plain landform. These Places are artefact scatters comprised of silcrete, a raw material which are common in the region, and botryoidal magnesite, which is not a common material in assemblages in the geographic region. VAHR 7822-1574 (CRAIGIEBURN BYPASS 6) originally comprised one surface artefact but a second was added during the preparation of CHMP 12847 (Goldfarb and Hill 2014).

The standard assessment did not identify any additional artefacts to add to the previous recorded Places in the activity area. The assessment identified areas of land disturbance and suspected areas of likelihood where artefacts could be found, namely along Summerhill Road, amongst a stand of mature River Red Gum trees.

The complex assessment found disturbed contexts in many areas, especially in proximity to areas where the Hume Freeway and the Melbourne-Sydney railway line had been constructed; however, artefacts were also found in disturbed area, such as on the south bank of Malcolm Creek. Artefacts were also found on the north bank of Merri Creek in an area where less disturbance had previously occurred.

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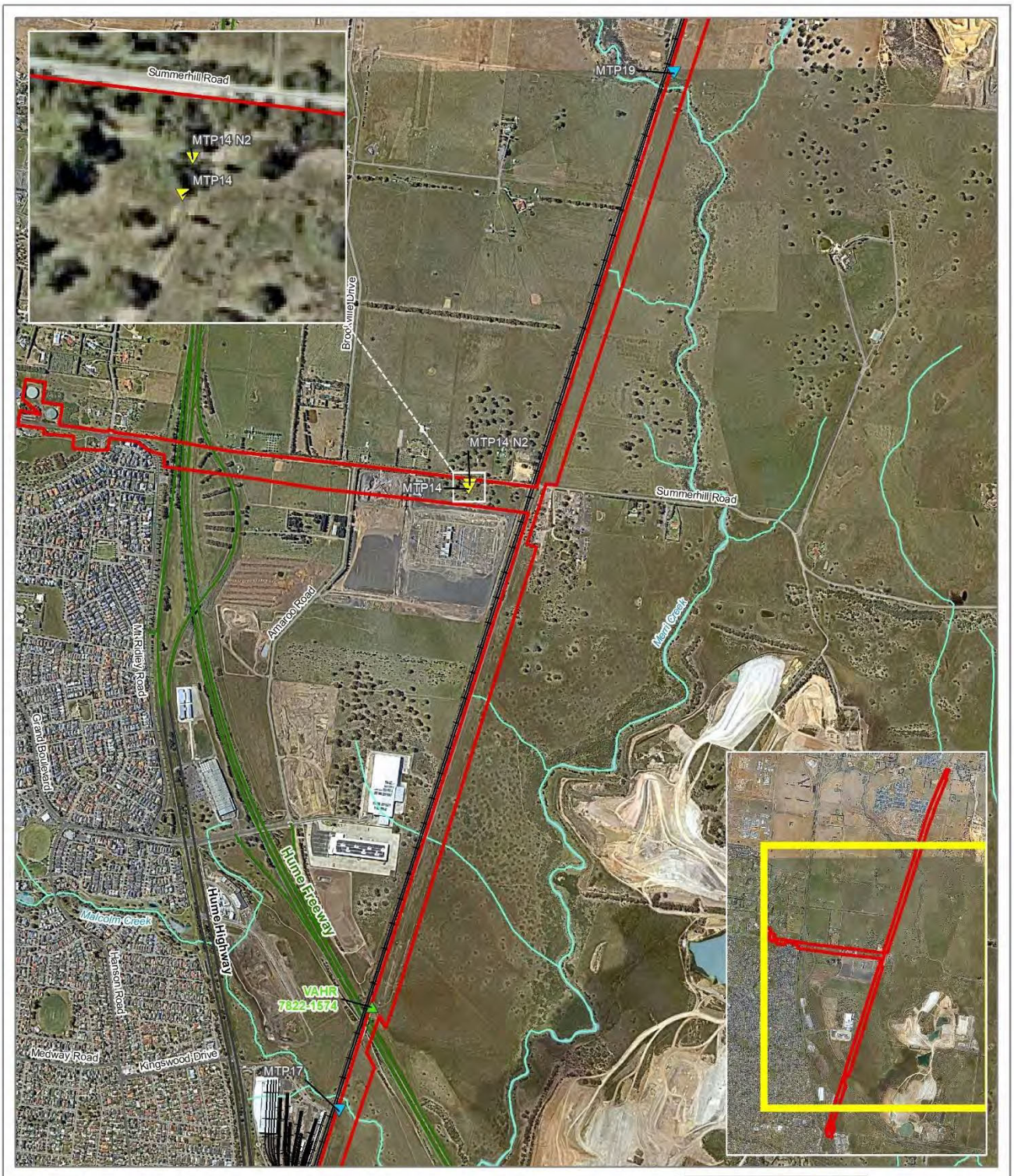

Map 12
Aboriginal Places in the Activity Area
Cultural Heritage Management Plan: Aurora to Bald Hill Non-Drinking Water Main (Stage 1)

Legend
- Activity Area

VAHR 7822-4957 (Aurora to Summerhill LDAD)
- Subsurface Artefact
- Multiple Artefacts Present

Registered Aboriginal Places
- VAHR 7822-1574 (Craigieburn Bypass 6)



0 250
Metres

Local Government: City of Whittlesea and Hume City Council
25k Mapsheet: Donnybrook 7822-1-1
Coordinate System: MGA Zone 55 (GDA94)
Map Scale: 1:20,000

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10.2.1 Place Formation Processes

Place formation processes were assessed through a study of the landform, soil types, stratigraphy and taphonomic processes.

The geographic region and the activity area are located on the Victorian Volcanic Plain and landforms within the activity area include plains, a hill slope and two creek lines. In total, there are two Aboriginal Places within the activity area and artefacts were recorded in the plain and creek line landforms. The hill slope has been subject to disturbance in the form of road formation, residential development and the installation of infrastructure such as subsurface utilities and no Aboriginal cultural heritage was recorded in that landform within the extent of the activity area; however, it should be noted that VAHR 7822-2259 is located 116 m southwest of the activity area on the same hill.

In most cases, soil profiles were shallow as expected; however, artefacts were located at depths of between 200-300 mm in areas where less disturbance had taken place, such as on Summerhill Road, west of the railway line. VAHR 7822-1574 was registered as a result of monitoring during works for the construction of the Craigieburn Bypass section of the Hume Freeway and were recorded as artefacts exposed in machine scrapes. Although these artefacts are recorded as surface artefacts, they were likely deposited in subsurface contexts prior to the construction works for the freeway occurring. VAHR 7822-4957 is dispersed across three locations within the activity area, two of which are located in proximity to waterways and one location amongst remnant vegetation. Components 1 to 5 of the LDAD are located amongst mature *Eucalyptus camaldulensis* and were located at the greatest depths, between 200 – 300 mm, while Components 9 to 11 are located on the north side of Merri Creek. Components 6 to 8 were located in a disturbed context on the south side of Malcolm Creek within the upper 100 mm of the soil.

Table 17 to Table 18 set out the depths at which artefacts were located.

Table 17: Depth (mm) of Artefacts Recovered from VAHR 7822-1574 (Craigieburn Bypass 6)

Material	Depth					Total
	Surface	0–100	100–200	200–300	300–400	
Quartz	1					1
Botryoidal Magnesite	1					1
Total	**2**	**0**	**0**	**0**	**0**	**2**

Table 18: Depth (mm) of Artefacts Recovered from VAHR 7822-4957 (Aurora to Summerhill LDAD)

Material	Depth					Total
	Surface	0–100	100–200	200–300	300–400	
Quartz			1			1
Quartzite		3		1		4
Silcrete		1	1	3		5
Tachylite				1		1
Total	**0**	**4**	**2**	**5**	**0**	**11**

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10.2.2 Artefact Analysis

The artefact analysis focused on determining patterns of raw material use, technology and typology. Attributes recorded for each artefact include:

- Raw material, type and colour;
- Tool type (where applicable);
- Flake scars (where applicable);
- Platform quantity, type, width and thickness (where applicable);
- Termination type (where applicable);

The artefact catalogues are presented in Appendix 6.

10.2.2.1 Raw Material

There are five raw materials present in the assemblages recorded in the activity area: botryoidal magnesite and tachylite were only present in the form of single artefacts, while the balance of the raw materials is comprised of silcrete, quartz and quartzite. These raw materials are widely found in the geographic region (see Goldfarb and Hill 2014; Tucker 2008; Rhodes 1999; Roberts et al. 2023).

10.2.2.2 Artefact Types

The artefact types recorded for VAHR 7822-1574 (Craigieburn Bypass 6) and VAHR 7822-4957 (Aurora to Summerhill LDAD) are shown in Table 19 and 20 below. The small number of artefact types recorded in the activity area limit the interpretation of the use of the landscape by Aboriginal people in that the artefacts are widely scattered, as in the case of VAHR 7822-4597, and are fragmentary in nature. It is possible that these places represent places of accidental discard; however, it is worth noting that three artefacts were found on the south bank of Malcolm Creek and more were found on the north bank of Merri Creek, supporting the observations of past studies that Aboriginal Places are more likely to occur in relation to waterways and elevated areas.

Table 19: Artefact Types Recovered from VAHR 7822-1574 (Craigieburn Bypass 6)

Artefact Type	Material Type		Total
	Silcrete	Botryoidal Magnesite	
Blade	1		**1**
Core		1	**1**
Total	1	1	**2**

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Table 20: Artefact Types Recovered from VAHR 7822-4957 (Aurora to Summerhill LDAD)

Artefact Type					Total
	Silcrete	Quartzite	Quartz	Tachylite	
Tools					
Scrapers (thumbnail, steep edge, etc.)	1				**1**
Blades	1				**1**
Other					
Complete Flake				1	**1**
Broken Flake	1	3	1		**3**
Flaking Debris/ Angular Fragments	2	1			**3**
Total	**5**	**4**	**1**	**1**	**11**

VAHR 7822-1574 was first recorded as a silcrete flaked blade, also recorded during monitoring of works for the construction of the Hume Freeway. A second artefact was located during the preparation of CHMP 12487 (Goldfarb and Hill 2014). The artefact was identified during the standard assessment within this CHMP, where-in the Place was re-inspected. The artefact is a chunky in shape, with yellow inclusions and negative flake scars. The material has been identified as botryoidal magnesite, which is common in soils and weathering profiles around the Heathcote area. (Goldfarb and Hill 2014: 38)

The analysis below will focus on the assemblage from VAHR 7822-4597 (Aurora to Summerhill LDAD), recorded during the complex assessment of this CHMP.

10.2.2.3 Cortex

Cortex is the weathered outer layer of a nodule of raw material to be flaked; this layer is removed during the knapping process and is more likely to be present on artefacts produced early in the reduction sequence. Of the 11 artefacts recorded for VAHR 7822-4957, nine retained no cortex, indicating that they had been produced later in the stage of raw material acquisition and preparation for knapping (Andrefsky 2005: 6).

10.2.2.4 Flakes

Within the assemblage of VAHR 7822-4597,there are seven flakes: two complete flake, three proximal flakes and one distal flake. Flake platforms include four plain platforms and one crushed platform. The presence of plain platforms indicates that there was little platform preparation of the cores from which the flakes were struck. This process may have occurred elsewhere, an observation supported by the low number of artefacts in the assemblage that retain cortex (see 10.2.1.3 above).

10.2.2.5 Cores

There are no cores present in the assemblage from VAHR 7822-4957. Although there is a small number of angular fragments in the assemblage, the lack of cores in the assemblage indicates that knapping was unlikely to have occurred in the activity area. Given the narrow, linear nature of the activity area,

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it is not possible to rule out knapping from having occurred nearby, especially as there are Aboriginal Places in and around the activity area.

10.2.2.6 Formal Tools

There are two tools in the assemblage, one of which is an amorphous scraper, so called because it is not defined on the basis of any formal morphological tool type. Such tools are likely to be sharp-edged flakes which were used expediently for a task before being lost or discarded. The second tool type recorded is that of a point, although it too has no formal morphological form associated with it, for example, a Bondi point.

10.2.3 Shell Analysis

No shell material was recovered during the assessment; therefore, no shell analysis was undertaken.

10.2.4 Faunal Analysis

No faunal material was recovered during the assessment; therefore, no faunal analysis was undertaken.

10.2.5 Radiometric Dating

No charcoal samples suitable for radiometric dating were recovered during the assessment; therefore, no dating was undertaken.

10.2.6 Significance Assessment

Significance assessment in Australia is primarily based on the internationally recognised Burra Charter (Australia ICOMOS 2013a), combined with the requirements of state-specific heritage legislation and professional standards. The Burra Charter sets forward a logical process that can be applied across a diverse range of places, objects, sites, practices, beliefs and landscapes, both in colonial history and Aboriginal history. It recognises five aspects of cultural significance (Article 1.2):

Historic: association with historic people, processes, events

Aesthetic: scale, form, appearance, sensory experience

Scientific: ability to contribute to research questions, including archaeological. It takes into account the rarity or commonness of a site and its condition or quality. Frequently, determining scientific significance requires some form of testing or sampling, such as a test excavation.

Social: contemporary community opinions, attachments, esteem

Spiritual: intangible meanings, importance in spiritual identity

In the context of the Charter, a place or object may have significance under all categories or only one or two. Heritage managers can also rank the level of significance as low, medium or high. For example, a place may have high social significance but low historic or scientific significance. Heritage managers working with Aboriginal sites tend to give considerable weight to social significance, in recognition that Aboriginal people have a right to control their own cultural heritage. The Victorian *Aboriginal Heritage Act 2006* reflects this view, stating that one of its objectives is to (3[b]) *to recognise Aboriginal people*

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as the primary guardians, keepers and knowledge holders of Aboriginal cultural heritage. The Victorian *Aboriginal Heritage Act 2006* (Part 1 Section 4) defines cultural heritage significance as:

a. archaeological, anthropological, contemporary, historical, scientific, social or spiritual significance; and

b. significance in accordance with Aboriginal tradition.

In this CHMP we summarise the significances of each place against these categories. Given the diverse values associated with cultural heritage in the activity area, we think this approach is more appropriate than trying to 'quantify' the significance of these places. We present the community significance statements about the Aboriginal Places and Landscapes of the activity area, recognising that this allows for other methods of significance attribution that are specific to Indigenous worldviews (of which Aboriginal tradition may form one part).

Significance assessment is not objectively determined or intransient; all aspects of significance can change as circumstances change. As Bowdler (1984:1) originally observed "archaeological significance is mutable, even a transformational, quality, which changes as the subject changes." For example, a flood may alter the landscape and impact the aesthetic value of a place; a new generation may not attach the same social significance to a place as the previous one; new research or access to information may make the scientific significance of a site more or less important. A once commonplace site may take on a higher significance if others of its type have been destroyed.

Scientific and Archaeological Significance

We have employed a conventional approach to the assessment of archaeological significance, considering archaeological significance synonymous with a type of scientific significance. Specifically, we consider archaeological significance synonymous with or a type of scientific significance (see Table 26 in Section 10.3, Table 27 in Section 10.4, Table 28 in Section 10.5 and Table 29 in Section 10.6). The archaeological significance of an Aboriginal Place is related to the volume, uniqueness/ representativeness and information potential of the data (artefacts, features and contexts) of the site (see Sullivan 2012:256). This view of archaeological/scientific significance was framed primarily around the idea that archaeological sites were able to generate and test 'timely and specific research questions' (Bowdler 1981:129). Our assessment of archaeological significance is thus primarily concerned with the research potential of each place.

The Burra Charter defines 'cultural significance' to include 'scientific… value for past, present or future generations'. Scientific value refers to the information content of a place and its ability to reveal more about an aspect of the past through investigation or research. The relative scientific value of a place is likely to depend on the importance of the information or data involved, on its rarity, quality or representativeness, and the potential to contribute further important information about the place itself or a type or class of place (Australia ICOMOS 2013a:2–3). Thus, the Burra Charter practice note directly reflects Bowdler's (1981:129) original idea that archaeological significance should be assessed according to research potential and representativeness. However, as Brown (2008:19) has suggested the significance assessment process for Aboriginal heritage itself has been unable to adequately integrate scientific with other values in a way that is beneficial to archaeological research. The scientific significance of an archaeological site may depend (among other things) on whether or not other sources

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(e.g., written or photographic documents), and other places, can yield additional or comparative data (Australian ICOMOS 2013b:3). Thus, the Burra Charter recognises that the scientific significance of a site may be related to studies outside archaeological practice (such as historical, anthropological and paleoenvironmental studies) and to comparative data that is not specific to that place.

Social Significance

As Brown (2008:24) noted there has been a "shift in cultural heritage management from a focus on managing the fabric of sites for their archaeological value to managing almost exclusively for Aboriginal cultural and social value." Nonetheless, Brown (2008:25) recognised that there are "no methods for recognising the social value of pre-contact heritage items to contemporary Aboriginal People". In assessing the significance of Aboriginal Places and natural/cultural landscapes, we take into consideration their significance in terms of their social value to the relevant Aboriginal stakeholders. This is in accordance with the Burra Charter Practice Note (Australia ICOMOS 2013b:3) which states, "Places containing archaeological evidence may be significant for their social and spiritual values. This is often the case with places of archaeological significance associated with Indigenous cultures…"

Social significance is regularly characterised in terms of the degree of contemporary community esteem which is attached to archaeological sites and intends to ascertain whether, for example, damage to sites or its contents would cause the Aboriginal stakeholders a sense of loss, or whether the site(s) contributes a sense of community identity to the Aboriginal stakeholders; they are seen as an 'authentic expression of cultural heritage' (Brown 2008:26; Burke et al. 2017). However, these objects and Places are not only archaeological, but cultural and it is under the *Aboriginal Heritage Act 2006* that such places (both tangible and intangible) are evaluated. It is noted that intangible heritage and values leave physical remains, which is why consultation with the relevant Traditional Custodians is important in understanding Social Significance. Aboriginal Places often have known traditional associations, such as knapping floors, camping sites and areas of spiritual significance, these places have significance to Aboriginal communities in the sense that these Places represent past Aboriginal lifestyles and symbolise the continuity of Aboriginal society (e.g., Pearson and Sullivan 1995:19, 159). During events of significant destruction or disturbance, permitted or otherwise, aspects of that harmful process inherently expand the cultural heritage aspects of a Place, object, or landscape by generating archaeological information about past Aboriginal lifeways and adaptation. In this way, the social significance of these places can be elevated and can contribute to the broader reconciliation goal of many Aboriginal communities.

Significance in accordance with Aboriginal tradition

In accordance with Part 1 section 4 of the *Aboriginal Heritage Act 2006*, Aboriginal tradition means

a. the body of traditions, knowledge, observances, customs and beliefs of Aboriginal people generally or of a particular community or group of Aboriginal people; and

b. any such traditions, knowledge, observances, customs or beliefs relating to persons, areas, objects or relationships.

Aboriginal people are the best people to ask about the assessment of the cultural heritage significance of Aboriginal Places and objects in accordance with Aboriginal tradition.

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The results of the significance assessment for each of the above categories (scientific/archaeological, contemporary/social, historical and spiritual are presented in Table 23 (Section 10.3), Table 24 (Section 10.4), and Table 25 (Section 10.5). The significance assessment in accordance with Aboriginal tradition is below in a Statement of Significance provided by the Wurundjeri Woi-wurrung Cultural Heritage Aboriginal Corporation for the Aboriginal cultural heritage within the activity area.

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Wurundjeri
Woi-wurrung

Cultural Heritage
Aboriginal Corporation

Wurundjeri Woi-wurrung Statement of Significance

The process for establishing cultural heritage significance is outlined in the Australia ICOMOS Charter for the Conservation of Places of Cultural Significance, otherwise known as 'The Burra Charter' (Marquis-Kyle and Walker, 1992 - Marquis-Kyle, P., and Walker, M. (1992) The Illustrated Burra Charter, Australia ICOMOS. Sydney). The Burra Charter is based on preceding international charters formulated by ICOMOS (the International Council on Monuments and Sites).

The Burra Charter defines cultural heritage significance as the aesthetic, historic, scientific, social or spiritual value for past, present or future generations. Social value embraces the qualities for which a Place has become a focus of spiritual, political, national or other cultural sentiment to a majority or minority group (Guidelines to the Burra Charter: Cultural Significance, pg 11). This cultural sentiment therefore comes from the Aboriginal peoples themselves in relation to the Aboriginal Place(s) that is being assessed.

When considering the overall Aboriginal cultural heritage significance of Aboriginal Places in Victoria a more holistic approach, which includes all of the above categories, would be more appropriate to determine cultural heritage significance. As stated in the Guidelines to the Burra Charter regarding Cultural Significance (pg 13): 'Whatever may be considered the principal significance of a place, all other aspects of significance should be given consideration.' Therefore in addition to the archaeological (scientific) significance of a Place, a CHMP must incorporate the aesthetic, historic, social and/or spiritual value of that Place in order to arrive at an overall statement of significance. These intangible values should be incorporated as part of the cultural significance of an Aboriginal Place to Aboriginal peoples.

It is these principles that are reflected in the Victorian *Aboriginal Heritage Act* 2006, which states (Section 4) that the definition of cultural heritage significance includes archaeological, anthropological, contemporary, historical, scientific, social or spiritual significance and significance in accordance with Aboriginal tradition. It should be noted that Aboriginal tradition is not static and unchanging from a distant 'authentic' past. Tradition is also the handing down of beliefs and stories from one generation to the next, but does not mean that 'significance in accordance with Aboriginal tradition' requires an immutable value from 'time immemorial.' For example, a scatter of discarded waste flakes from a one-off utilitarian task may acquire 'significance in accordance with Aboriginal tradition' with the passage of time and change. Indeed, as has been noted by other Heritage Advisors in other states of Australia, the act of handling stone artefacts through the archaeological excavation and sieving process by Aboriginal peoples reconnects those peoples with their past and therefore creates a new cultural significance with those artefacts.

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Aboriginal Places and areas of land under the custodianship of the Wurundjeri have a special significance for the Wurundjeri people. All Aboriginal Places in the activity area are considered to have cultural significance to the Wurundjeri. In addition, many Aboriginal Places in the greater Melbourne area have been destroyed by land clearance and land use practices in the historic period that continue to this day. As a result, all Aboriginal Places in the greater Melbourne region are a diminishing resource and the Wurundjeri feel strongly that these should all be protected as much as is practicable.

For the Wurundjeri community there is no separation between "nature" and "culture"- the natural world is a cultural world; therefore the Wurundjeri people have a special interest in preserving not just their cultural objects, but the natural landscapes of cultural importance. The acknowledgement of broader attributes of the landscape as cultural values that require protection (encompassing, among other things, a variety of landforms, ecological niches and habitats as well as continuing cultural practices) is essential to the identity and wellbeing of the Wurundjeri people. For a holistic approach to assessing a landscape for Aboriginal heritage potential, it is not only imperative to conduct archaeological investigations, but to also ascertain cultural perceptions of the landscape or places held by Aboriginal people.

It is part of the process of determining overall cultural heritage significance that Heritage Advisors endeavour to record all these stories, both traditional and contemporary, and include all the intangible values in the significance assessment of all Aboriginal Places in Victoria. Comment on cultural values and significance can only be made by the Wurundjeri community, where specific details about cultural significance must be dealt with on a case-by-case basis. There has not been the opportunity to record the specific Aboriginal cultural values of the activity area for this project; therefore the statement below is a general statement of cultural significance for VAHR 7822-1574 (Craigieburn Bypass 6) and VAHR 7822-4957 (Aurora to Summerhill LDAD):

For Aboriginal people, there are many different kinds of cultural values associated with the landscapes that were once lived in by their ancestors. These include the tangible values normally recorded during archaeological investigations, such as artefact scatters and scarred trees. These places are physical reminders of the cultural lives of the Wurundjeri ancestors and a special connection therefore exists between those places and contemporary Wurundjeri people. This special connection underpins the high significance of these places.

There are other values that the Wurundjeri people connect to in landscapes such as the activity area and surrounding area. Merri Creek and Malcolm Creek provided a resource base including food, materials and possibly stone quarries for traditional Woiwurrung speaking people. The natural values, such as remnant vegetation, eucalypts, and the landscape views from the activity area are all integral to the cultural landscape in which Woiwurrung ancestors lived for many thousands of years. These landscape characteristics are therefore significant in accordance with Aboriginal tradition. Best practice heritage management, in terms of avoidance of harm to cultural heritage and where harm cannot be avoided, proper management of the disturbance of those values, is integral in the management of these significant cultural places.

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10.3 VAHR 7822-1574 (Craigieburn Bypass 6)

10.3.1 Location of VAHR 7822-1574 (Craigieburn Bypass 6)

Primary Grid Coordinate: GDA 94, Zone 55, E 318895, N 5837671.

Cadastral details are:

- Lot: RES1, Title Plan:PS518226, Parish: Yuroke, and County: Bourke; and
- Lot: 1, Title Plan: PS743428, Parish: Yuroke, and County: Bourke

10.3.2 Extent of VAHR 7822-1574 (Craigieburn Bypass 6)

The Place extent of VAHR 7822-1574 has been determined in relation to the two surface artefacts that have been recorded for this Place, with the application of a 2 m buffer to allow for the possibility of additional artefacts (either surface or subsurface) being present (Figure 18). CHMP 12847 noted that the area surrounding the location of the original artefact had been altered by the construction of the Craigieburn Bypass; it was also noted that additional Aboriginal cultural heritage if present is likely to be located on the surface or close to it (Goldfarb & Hill 2014 :83). MTP22 was excavated as agreed with the RAP, being the location of a launch/retrieval shaft for the pipeline to pass beneath the freeway. The MTP was excavated within 5 m of the Place extent and reached a depth of 250 mm. No subsurface cultural heritage was present in the MTP; therefore, no further excavations were undertaken.

10.3.3 Nature of VAHR 7822-1574 (Craigieburn Bypass 6)

VAHR 7822-1574 is registered as an artefact scatter; however, there are only two artefacts in the assemblage. The first of the artefacts, a silcrete flake, was found during the construction of the Craigieburn Bypass, in a disturbed context following stripping of the ground surface. The second was located nearby during the preparation of CHMP 12847 and is made of botryoidal magnesite (Plate 58). No subsurface cultural heritage was found in proximity to this Place during the complex assessment (MTP22, Map 11f).

10.3.4 Significance of VAHR 7822-1574 (Craigieburn Bypass 6)

The cultural significance of VAHR 7822-1574 (Craigieburn Bypass 6) has been assessed against the criteria as defined in Section 4 of the *Aboriginal Heritage Act 2006* (Table 21).

Table 21: Cultural Significance of VAHR 7822-1574 (Craigieburn Bypass 6)

Criterion	Assessment
Archaeological / Scientific	**Low**. VAHR 7822-1574 (Craigieburn Bypass 6) contains two stone artefacts, one of which is made of silcrete, which is a common raw material in the region. The second artefact is a core made of botryoidal magnesite, which is a much less common raw material.

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Criterion	Assessment
Contemporary / Social	The contemporary or social significance of a Place is related to its association with a particular social group or community. Aboriginal people themselves are the most appropriate people to determine the social significance of any Aboriginal Place or areas of land associated with their heritage. WWCHAC were requested to provide information on the cultural heritage significance of the Place in accordance with Aboriginal tradition; however, no specific information was provided about this. .
Historical	**N/A**. There are no documented or oral histories relating to this Place. There is no evidence that the Place was the location of an important event, nor associated with an historic person or activity.
Spiritual	**High**. Although no 'ceremonial' or 'ritual' components of the Place have been identified, the Place may hold spiritual significance for certain members of the Aboriginal community.

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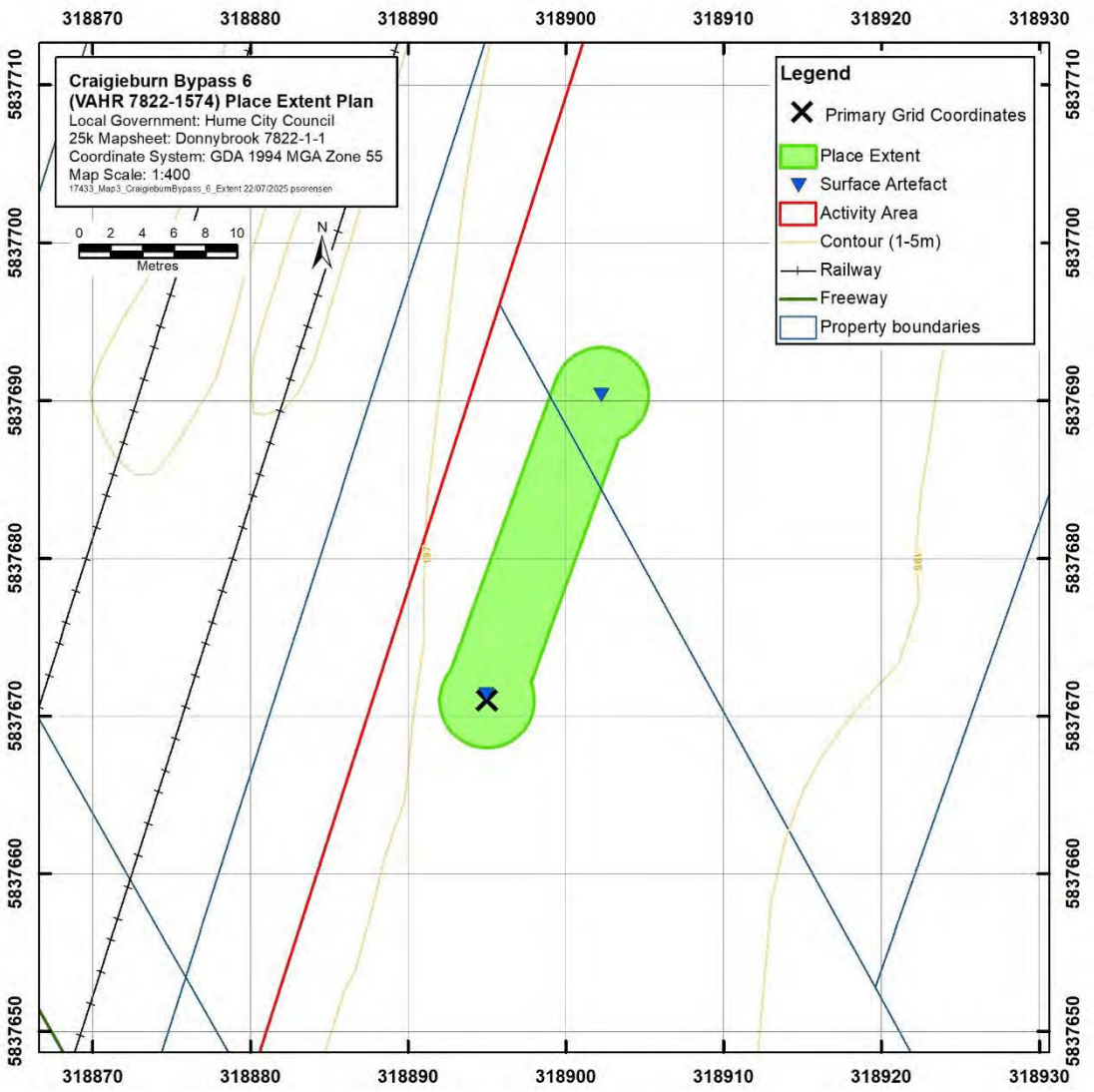

Figure 18: Extent of VAHR 7822-1574 (Craigieburn Bypass 6)



Plate 57: View of VAHR 7822-1574 (Craigieburn Bypass 6) facing north (C. Gamble, 19.11.2024)



Plate 58: Botryoidal magnesite artefact from VAHR 7822-1574 (Craigieburn Bypass 6) (Source Goldfarb and Hill 2014: 83)

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10.4 VAHR 7822-4957 (Aurora to Summerhill LDAD)

10.4.1 Location of VAHR 7822-4957 (Aurora to Summerhill LDAD)

Primary Grid Coordinate: GDA 94, Zone 55, E 319268.928, N 5839765.99.

Cadastral details are:

- Lot: A, Title Plan: PS743429, Parish: Yuroke, and County: Bourke;
- Lot: 6, Title Plan: LP205880, Parish: Yuroke, and County: Bourke; and
- Lot: 4, Title Plan: LP118142, Parish: Yuroke, and County: Bourke.

10.4.2 Extent of VAHR 7822-4957 (Aurora to Summerhill LDAD)

VAHR 7822-4957 (Aurora to Summerhill LDAD) is a Low Density Artefact Distribution and as such has no Place extent. The location of the components is the extent of the Aboriginal Place (Figure 19).

10.4.3 Nature of VAHR 7822-4957 (Aurora to Summerhill LDAD)

VAHR 7822-4957 (Aurora to Summerhill LDAD) is a Low Density Artefact Distribution comprised of 11 components made of four raw materials including silcrete, quartz, quartzite and tachylite. Artefact forms include complete and broken flakes, one blade and angular fragments.

10.4.4 Significance of VAHR 7822-4957 (Aurora to Summerhill LDAD)

The cultural significance of VAHR 7822-4957 (Aurora to Summerhill LDAD) has been assessed against the criteria as defined in Section 4 of the *Aboriginal Heritage Act 2006* (Table 22).

Table 22: Cultural Significance of VAHR 7822-4957 (Aurora to Summerhill LDAD)

Criterion	Assessment
Archaeological / Scientific	**Low**. VAHR 7822-4957 (Aurora to Summerhill LDAD) contains a low density of stone artefacts. The raw materials from which the artefacts were manufactured are also commonly found in the region. Based on the number of artefacts recovered, the Place condition and the common occurrence of this Place within the region, the Place has been assessed as having a low archaeological and scientific significance.
Contemporary / Social	The contemporary or social significance of a Place is related to its association with a particular social group or community. Aboriginal people themselves are the most appropriate people to determine the social significance of any Aboriginal Place or areas of land associated with their heritage. WWCHAC were requested to provide information on the cultural heritage significance of the Place in accordance with Aboriginal tradition; however, no specific information was provided about this.
Historical	**N/A**. There are no documented or oral histories relating to this Place. There is no evidence that the Place was the location of an important event, nor associated with an historic person or activity.
Spiritual	**High**. Although no 'ceremonial' or 'ritual' components of the Place have been identified, the Place may hold spiritual significance for certain members of the Aboriginal community.

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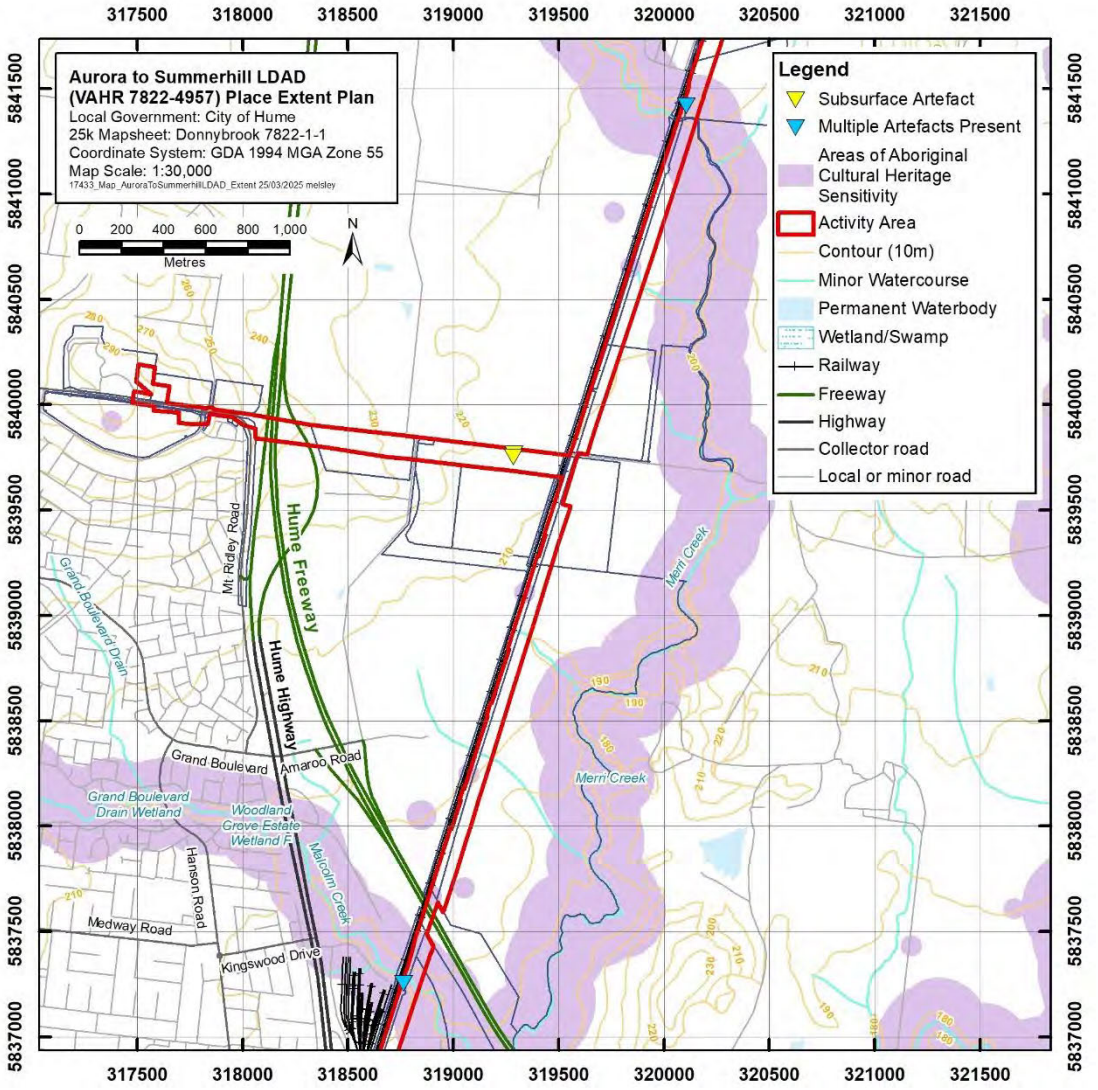

Figure 19: Extent of VAHR 7822-4957 (Aurora to Summerhill LDAD)



Plate 59: View of VAHR 7822-4957 (Aurora to Summerhill LDAD) facing east (C. Gamble, 21.11.2024)



Plate 60: Artefacts from VAHR 7922-4957 (Aurora to Summerhill LDAD) (M. Morris, 04.03.2025)

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11 CONSIDERATION OF SECTION 61 MATTERS – IMPACT ASSESSMENT

11.1 Section 61 Matters in Relation to VAHR 7822-1574 (Craigieburn Bypass 6)

11.1.1 Avoidance of Harm

The Sponsor has considered harm avoidance but the design of the pipeline may not be able to avoid harm, although every effort will be made to do so.

The tangible cultural heritage was collected during the construction of the Hume Freeway and during the preparation of CHMP 12847 (Goldfarb and Hill 2014). The RAP did not request any specific harm avoidance measures as the tangible cultural heritage was collected during this CHMP. In the event of harm to VAHR 7822-1574, the Elders have requested the repatriation of any artefacts that may be found.

11.1.2 Minimisation of Harm

Harm minimisation to VAHR 7822-1574 (Craigieburn Bypass 6) is not possible.

11.1.3 Management Measures

While harm is permitted to VAHR 7822-1574 (Craigieburn Bypass 6), there are no specific harm avoidance or harm minimisation measures required. Ecology and Heritage Partners on behalf of Ripple JV holds no cultural heritage from this Place, nor was any additional cultural heritage located during the preparation of this CHMP; therefore, there is no requirement for a management condition for the repatriation of cultural heritage from this Place. If cultural heritage is found, Contingency 4 must be followed.

11.2 Section 61 Matters in Relation to VAHR 7822-4957 (Aurora to Summerhill LDAD)

11.2.1 Avoidance of Harm

The Sponsor has considered harm avoidance but the design of the pipeline may not be able to avoid harm, although every effort will be made to do so.

The RAP did not request any specific harm avoidance measures as the tangible cultural heritage was collected during this CHMP. In the event of harm to VAHR 7822-4957 the Elders have requested the repatriation of any artefacts.

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11.2.2 Minimisation of Harm

Harm to VAHR 7822-4957 (Aurora to Summerhill LDAD) may be minimised. As widely dispersed LDAD components, some components may be directly impacted by the activity while harm may be avoided to others.

11.2.3 Management Measures

As harm is permitted to VAHR 7822-4957 (Aurora to Summerhill LDAD), there are no specific harm avoidance or harm minimisation measures required. Management measures include the repatriation of the Aboriginal cultural heritage to the RAP (Condition 8). If additional Cultural heritage is found, Contingency 4 must be followed.

11.3 Cumulative Impacts

This section considers the magnitude of cumulative impacts and the significance of cumulative effects of the proposed development on Aboriginal cultural heritage. The cultural heritage investigation for this CHMP assessed previous land use and the potential for Aboriginal Places to be present within the activity area.

Considering previous harm to Aboriginal Places within the activity area, that further Aboriginal cultural heritage was identified during this CHMP's complex assessment, and that the activity has the potential to harm all Aboriginal cultural heritage within the activity area, the cumulative impacts of the current activity are considered to be high.

The Victorian Volcanic Plains, and particularly the Craigieburn, Mickleham and Donnybrook areas, have been assessed by numerous archaeological investigations. These studies have addressed the wider geographic region and township of Donnybrook and have found that artefact scatters, LDADs and scarred trees are the most common Place type in the region.

Similar artefact scatter sites and LDADs are common across the geographic region and are often destroyed, either under an approved CHMP or Cultural Heritage Permit, therefore, the cumulative impact to this type of site within both the wider region and more locally is considered to be reasonably high. Harm to stone artefact Places with a higher density of stone artefacts than smaller artefact scatters or LDADs is often minimised or prevented from occurring through the placement of geofabric and crushed rock, or portions of such Places are preserved in open space; however, LDADs are frequently harmed by developments.

Table 23 sets out management conditions and permitted impacts that have occurred to Aboriginal Places in proximity to the current activity.

Table 23: Cumulative impacts on Aboriginal Cultural Heritage

Report date, author, and number	Report type and distance to Activity Area	Places Identified	Management Conditions and Permitted Impacts
Goldfarb and Hill 2014	Complex CHMP	VAHR 7822-3732 (Donnybrook Road LDAD 3), VAHR 7822-1574 (Craigieburn Bypass 6)	No specific management conditions for harm avoidance were required. Artefacts from

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#12847	Largely through the railway pipe track of the activity area.		VAHR 7822-1574, 7822-3732 and 7822-3750 were to be repatriated to the activity area and reburied.
Athanasiadis & Tucker 2008 #10500	Complex CHMP Within the activity area.	VAHR 7822-2259 (Mt Ridley Reserve 1)	General conditions and contingencies. Harm was permitted to VAHR 7822-2259 as further investigation or harm management measures were not required.
Muir 1998	Assessment of five options for the alignment of the Hume Freeway, located within the present activity area.	VAHR 7822-0932 – 7822-0941, VAHR 7822-0946 and VAHR 7822-0959 – 7822-0960, VAHR 7822-0943 – 7822-0945.	Recommendations were made to select the option that would impact the least number of Aboriginal Places.
Roberts et al. 2023 #16771 (Amendment 3)	Complex CHMP Intersects with the northern portion of the activity area.	VAHR 7822-4462 (750 Donnybrook Rd East LDAD), VAHR 7822-4494 (Kalkallo Reserve LDAD), VAHR 7822-4492 (750 Donnybrook Rd East AS) and VAHR 7822-4493 (750 Donnybrook Rd LDAD), VAHR 7822-4537 (English Street, Donnybrook LDAD 3)	Protective fencing is required for four Places (VAHR 7822-4462 (750 Donnybrook Rd East LDAD), VAHR 7822-4494 (Kalkallo Reserve LDAD), VAHR 7822-4492 (750 Donnybrook Rd East AS) and VAHR 7822-4493 (750 Donnybrook Rd LDAD)); during the activity, access tracks were required to be constructed in a manner that avoids harm to VAHR 7822-4494 (Kalkallo Reserve LDAD), VAHR 7822-4492 (750 Donnybrook Rd East AS) and components 1 and 6 of VAHR 7822-4537 (English Street Donnybrook LDAD 3). Trenchless construction techniques were also to be employed for VAHR 7822-4462 (750 Donnybrook Rd East LDAD), VAHR 7822-4492 (750 Donnybrook Rd East AS) and VAHR 7822-4493 (750 Donnybrook Rd LDAD).

The construction of the NDW main will most likely add to the net loss of Aboriginal cultural heritage in an increasingly urbanised area of northern Melbourne. While it was historical agricultural and pastoral land use that originally impacted Aboriginal cultural heritage in the region, the increasing pace of residential development and the disturbance of remnant natural soils and mature vegetation in Craigieburn, Mickleham and Donnybrook will most likely add further harm to the tangible and intangible Aboriginal cultural heritage of the geographic region and, as such, the cumulative impacts on Aboriginal heritage will most likely be high.

One Place within the activity area (VAHR 7822-1574) has already been harmed by the construction of the Craigieburn Bypass and will most likely be further harmed by ground-disturbing works for this

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activity. It may not be possible to avoid harm to all components of VAHR 7822-4957, although changes to the alignment of the pipeline are permitted to allow for harm avoidance. Although it does not outweigh the impact of damage, it is through the thorough recording and retrieval of tangible cultural heritage that the works contribute to an understanding of the archaeological record of the geographical area metropolitan Melbourne; however, this should not be considered as harm mitigation.

Future CHMPs to be undertaken in the region should give consideration to measures to avoid harm to Aboriginal Places early in the design and development of the activity.

11.4 General Requirements

11.4.1 Requirement for Contingency Plans

In accordance with Clause 13(1) Schedule 2 of the *Aboriginal Heritage Regulations 2018*, the CHMP must contain contingency plans for:

- The matters referred to in Section 61 of the *Aboriginal Heritage Act 2006*;
- The resolution of any disputes between the Sponsor and relevant Registered Aboriginal Party in relation to the implementation of the CHMP or the conduct of the activity;
- The discovery of Aboriginal cultural heritage during the activity;
- The notification of the discovery of Aboriginal cultural heritage during the carrying out of the activity;
- The management of Aboriginal cultural heritage found during the activity; and
- Reviewing compliance with the CHMP and mechanisms for remedying non-compliance.

11.4.2 Requirement for Arrangements for the Custody and Management of Aboriginal Cultural Heritage (Artefacts)

Ecology and Heritage Partners on behalf of Ripple JV holds no cultural heritage from VAHR 7822-1574.

As Aboriginal artefacts were recovered from one Aboriginal archaeological Place within the activity area, VAHR 7822-4957 (Aurora to Summerhill LDAD) there is a requirement for arrangements for the custody and management of Aboriginal cultural heritage.

Further information of custody and management requirements is provided in Section 1.2 (Condition 8).

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REFERENCES

Agriculture Victoria 2023, Victorian Resources Online, found at https://vro.agriculture.vic.gov.au/dpi/vro/vrosite.nsf/pages/landform_geomorphological_framework_6.1.2, accessed 14 August 2023.

Athanasiadis, H., and C. Tucker 2008, Mt Ridley Conservation Reserve, Highlands Estate, Craigieburn: A Cultural Heritage Management Plan. Cultural Heritage Management Plan 10500. Report prepared for Stockland Development, TerraCulture Heritage Consultants.

Australia International Council of Monuments and Sites (ICOMOS) 2013a The Burra Charter. The Australia ICOMOS Charter for Places of Cultural Significance. Australia ICOMOS.

Australia ICOMOS 2013b. The Burra Charter and Archaeological Practice. http://australia.icomos.org/wp-content/uploads/Practice-Note_The-Burra-Charter-and-Archaeological-Practice.pdf.

Barwick, D. 1984 Mapping the past: An Atlas of Victorian Clans 1835–1904, *Aboriginal History* 8(2):100–132.

Before You Dig Australia (BYDA) 2024. http://www.1100.com.au accessed 24 January 2024.

Birch, W.D. (ed.) 2003. *Geology of Victoria*, Special Publication 23, Geological Society of Australia (Victoria Division).

Bowdler, S. 1981 Unconsidered trifles? Cultural resource management, environmental impact statements and archaeological research in New South Wales. *Australian Archaeology* 12:123–133.

Bowdler, S. 1984. Archaeological significance as a mutable quality. In S. Sullivan and S. Bowdler (eds) *Site Surveys and Significance Assessment in Australian Archaeology: Proceedings of the 1981 Springwood Conference on Australian Prehistory*, pp.1–9. Canberra: Department of Prehistory, Research School of Pacific Studies, ANU.

Brook J.A. (2006) *Re-evaluating the Australian Small-Tool Tradition: a perspective from Hazelwood, Victoria*, Honours thesis, Archaeology Program, School of Historical and European Studies, La Trobe University, Melbourne.

Brown, S. 2008 Mute or mutable? Archaeological significance, research and cultural heritage management in Australia. *Australian Archaeology* 67:19–30.

Bureau of Meteorology (BOM), 2023. http://www.bom.gov.au, accessed 14 August 2023.

Burke, H., M. Morrison and C. Smith 2017 *The Archaeologists Field Handbook*. Second Edition. New South Wales: Allen & Unwin, Crows Nest NSW.

Cahir, F. 2012, *Black Gold: Aboriginal People on the Goldfields 1850-1870*, ANU Press, Canberra.

Clark, I.D. 1990 *Aboriginal languages and Clans: An Historical Atlas of Western and Central Victoria, 1800–1900, Number 37*. Department of Geography and Environmental Science, Monash University: Melbourne, Victoria.

Clarke, P. A. 2011. *Aboriginal People and Their Plants*. Rosenberg Publishing, Kenthurst.

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Crabtree, D.E. and B.R. Butler 1964 Notes on experiments in flint knapping: 1. Heat treatment of silica minerals. *Tebiwa* 7:1–6.

Coutts, P. J 1976, *The Prehistory of Victoria: A Review*. Records of the Victoria Archaeological Survey. Number 2. Melbourne.

Department of Environment, Energy and Climate Action (DEECA), 2023. *NatureKit,* found at https://www.environment.vic.gov.au/biodiversity/naturekit, accessed 14 August 2023.

Department of Transport and Planning (DTP), 2023. *Planning Schemes*. Found at https://www.planning.vic.gov.au/planning-schemes, accessed 31 July 2023.

Dodson J.R., Fullagar, R. and H. Head 1988. *The Naive Lands*. Longman-Cheshire, Melbourne.

Domanski, M., Webb, J. A. and Boland, J., 1994. Mechanical properties of stone artefact materials and the effect of heat treatment. *Archaeometry* **36**: 177–208.

Domanski, M. and J.A. Webb 1992. Effect of heat treatment on siliceous rocks used in prehistoric lithic technology. *Journal of Archaeological Science* 19:601–614.

du Cros, H. and D. Rhodes 1998. *Aboriginal Archaeological Sensitivities Study of the Waterways and Floodplains of Greater Melbourne*, FP-SR report #1320, report to Melbourne Water Corporation, Biosis Research Pty Ltd.

Ellender, I. 1997 *The Aboriginal Cultural Heritage of the Merri Merri Creek: Including the Archaeological Survey for Aboriginal Sites from Craigieburn Road to Hernes Swamp*, Archaeological report 1109, Unpublished report prepared for Merri Creek Management Committee.

Filihia, M. and D. Moroney 2025 *Aboriginal Cultural Heritage Impact Assessment: 750 Craigieburn Road East, 665 Summerhill Road, 675 Summerhill Road and 715 Summerhill Road,* , FP-SR survey report #172, report prepared for Landream Craigieburn Pty Ltd, Ecology and Heritage Partners.

Flood, J. 1995 *Archaeology of the Dreamtime*. Angus & Robertson, Sydney.

First Peoples – State Relations (FP-SR) 2024. *Aboriginal places and objects.* Found at https://www.firstpeoplesrelations.vic.gov.au/aboriginal-places-and-objects, accessed 12 January 2024.

First Peoples – State Relations 2014 'Low Density Artefact Distributions'. Found at https://www.firstpeoplesrelations.vic.gov.au/sites/default/files/2019-09/Low-Density-Artefact-Distributions-Updated-Recording-Guidelines_20_June_2014.pdf, accessed 09 January 2025.

Gammage, B. 2011 *The Biggest Estate on Earth: How Aborigines made Australia.* Sydney: Allen and Unwin.

Goldfarb, A., and J. Hill 2014, Amaroo Main Sewer Project, Outer Northern Melbourne. Cultural Heritage Management Plan 12847. Report to Yarra Valley Water Corporation, Jacobs.

Hall, R. 1989. Merri Creek Parklands: Aboriginal and Historical Heritage Survey, FP-SR report #041, report to Merri Creek Bicentennial Committee, La Trobe University.

Hamm, G., Mitchell, P., Arnold, L. J., Prideaux, G. J., Questiaux, D., Spooner, N. A., Levchenko, V. A., Foley, E. C., Worthy, J. H., Stephenson, B., Coulthard, V., Coulthard, C., Wilton, S. and D. Johnston, 2016. Cultural Innovation and Megafaunal Interaction in the Early Settlement of Arid Australia, *Nature* 539: 280-283.

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Hewitt, G. and J. Allen 2010 Site disturbance and archaeological integrity: The case of Bend Road, an open site in Melbourne spanning pre-LGM Pleistocene to late Holocene periods. *Australian Archaeology* 70:1–16.

Hi, N. 2025 *Factual Geotechnical Investigation – Aurora to Bald Hill NDW – Stage 1 Detailed Design,* report to Yarra Valley Water, prepared by Ripple JV.

Hiscock, P. 1993 Bondaian technology in the Hunter Valley, New South Wales, Archaeology in Oceania 28:65–76.

Hiscock, P. (1994) 'Technological responses to risk in Holocene Australia', Journal of World Prehistory, 8(3):267–292.

Howitt, A.W. 2001 *The Native Tribes of South-East Australia*. Canberra: Aboriginal Studies Press.

Hume Libraries 2013, Available from URL: https://www.humelibraries.vic.gov.au, Hume City Council, accessed 14 August 2023.

Kaskadanis, C. and A. Hamdorf 2017, *AusNet Services – Kalkallo to Doreen 66kV Line Project: Cultural Heritage Management Plan*, CHMP #15012, Unpublished report prepared for AusNet Electricity Services Pty Ltd.

Lambeck, K. and J. Chappell 2001 Sea level change through the Last Glacial Cycle. *Science* 292:679–686.

Lemon, A. 1982. Broadmeadows: A Forgotten History. City of Broadmeadows in conjunction with Hargreen Publishing, West Melbourne.

Mandeville, M. D. and J.J. Flenniken 1974 A comparison of the flaking qualities of Nehawka chert before and after thermal pretreatment. *Plains Anthropologist* 19:146–148.

Markgraf V., J.R. Dodson, A.P. Kershaw, M.S. McGlone and N. Nichols 1992 Evolution of late Pleistocene and Holocene climates in the circum-south Pacific land areas. *Climate Dynamics* 6:193–211.

McDonald, J., Reynen, W, Petchey, F., Ditchfield, K, Byrne, C., Vennieuwenhuyse, D., Leopold, M., abd P. Veth 2018 'Karnatukul (Serpent's Glen): A New Chronology for the oldest site in Australia's Western Desert, *Plos* One 13(9):20202511.

Mercieca, A. 2000 Burnt and broken: An experimental study of heat fracturing in silcrete. *Australian Archaeology* 51:40–47.

Mills, K., P. Gell, P. Hesse, R. Jones, P. Kershaw, R. Drysdale and J. McDonald 2013 Paleoclimate studies and natural-resource management in the Murray-Darling Basin I: past, present and future climates. *Australian Journal of Earth Sciences* 60(5):1–14.

Mulvaney, J. and J. Kamminga 1999 *The Prehistory of Australia*. Sydney: Allen and Unwin.

Muir, S. 1998. Hume Freeway Alignment (Options 1-5), Western Ring Road to Donnybrook Road, Archaeological Investigation. Archaeological report 1139. Unpublished report prepared for VicRoads.

Nearmap 2025. Used under licence by the GIS staff of Ecology and Heritage Partners.

Patterson, L. 2005, *An Archaeological and Heritage Desktop Study Kalkallo Sewerage Works.* FP-SR report #3015, Unpublished report prepared for Sinclair Knight Merz Pty Limited.

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Payne, J., W 1975, *The Plenty; A Centenary History of the Whittlesea Shire*, Lowden Publishing Co, Victorian Collections.

Payne, J. 1980. Donnybrook-Kalkallo 1855-1980. Back to Kalkallo Committee, Kalkallo.

Pearson, M. and S. Sullivan 1995 *Looking after heritage Places: The basics of heritage planning for managers, landowners and administrators.* Melbourne: Melbourne University Press.

Peel, L. 1974. *Rural Industry in the Port Phillip Region 1835- 1880*. Melbourne: Melbourne University Press.

Pickett, E.J., S.P. Harrison, G. Hope, K. Harle, J.R. Dodson, A.P. Kershaw,. I.C. Prentice, J. Backhouse, E.A. Colhoun, D. D'Costa, J. Flenley, J. Grindrod, S. Haberle, C. Hassell, C. Kenyon, M. Macphail, H. Martin, A.H. Martin, M. McKenzie, J.C. Newsome, D. Penny, J. Powell, J.I. Raine, W. Southern, J. Stevenson, J-P. Sutra, I. Thomas, S. van der Kaars and J. Ward 2004 Pollen-based reconstructions of biome distributions for Australia, Southeast Asia and the Pacific (SEAPAC region) at 0, 6000 and 18,000 ^{14}C yr BP. *Journal of Biogeography* 31:1381–1444.

Presland, G. 1994 *Aboriginal Melbourne: The Lost Land of the Kulin People*. Ringwood, Victoria: Mc Phee Gribble

Presland, G. 2008 *The Place for a village. How nature has shaped the City of Melbourne.* Melbourne: Museum Victoria.

Presland, G. 2010 *First People: The Eastern Kulin of Melbourne, Port Phillip and Central Victoria*. Melbourne: Museum Victoria.

Price, R.C., Gray, C.M., Nicholls, I.A. & Day, A. (1988). Cainzoic volcanic rocks. *In* J.G. Douglas and J.A. Ferguson (eds) *Geology of Victoria*. Geological Society of Australia, Victoria Division, Melbourne, pp. 439-451.

Purdy, B.A. 1974 Investigations concerning the thermal alteration of silica minerals: an archaeological approach. *Tebiwa* 17:37–66.

Roberts, P., White, T., Murszewski, A., Riley, J., and D. Kelly 2023. Installation of Non-Drinking Water Pipeline (R023), Donnybrook Road East, Donnybrook, CHMP #16771 (Amendment 3), report to Yarra Valley Water, Jacobs.

Rowney, M. 1992 Heat treatment on the rocks: A study of heat treatment detection methods. Unpublished B.A. (Hons) thesis, Department of Prehistoric and Historical Archaeology. University of Sydney, Sydney, New South Wales.

Schell, P. & Long, A 2006, *Melbourne 2030 Hume Growth Area Aboriginal Archaeological Desktop Report. A Report to The Built Environment Group – Department of Sustainability & Environment*, FP-SR report #3873, Unpublished report prepared for The Built Environment Group – Department of Sustainability & Environment.

Stanin, Z. 2008, Merrifield Temporary Outfall Sewer Pipeline and Pump Station, Craigieburn, CHMP 10346, report to Verve Project Management Pty Ltd., TerraCulture Heritage Consultants.

Sullivan, S. 2012 Aboriginal Sites and ICOMOS Guidelines. In S. Sullivan and R. Mackay (eds) *Archaeological Sites: Conservation and Management*, pp. 256–257. Los Angles: Getty Trust Publications.

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Theden-Ringl F (2017) 'A reassessment of technological change models for the Australian high country', Archaeology in Oceania 52(2017):81–97

Newspapers

The Argus, 23 June 1956.

Maps and Images

Geoscience Australia, 2025. Found at Australian Government Historical Aerial Photo Explorer | Digital Atlas of Australia, accessed 22 April 2025.

Geovic, 2025, found at https://gsv.vic.gov.au/sd_weave/anonymous.html, accessed July 2023.

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12 APPENDICES

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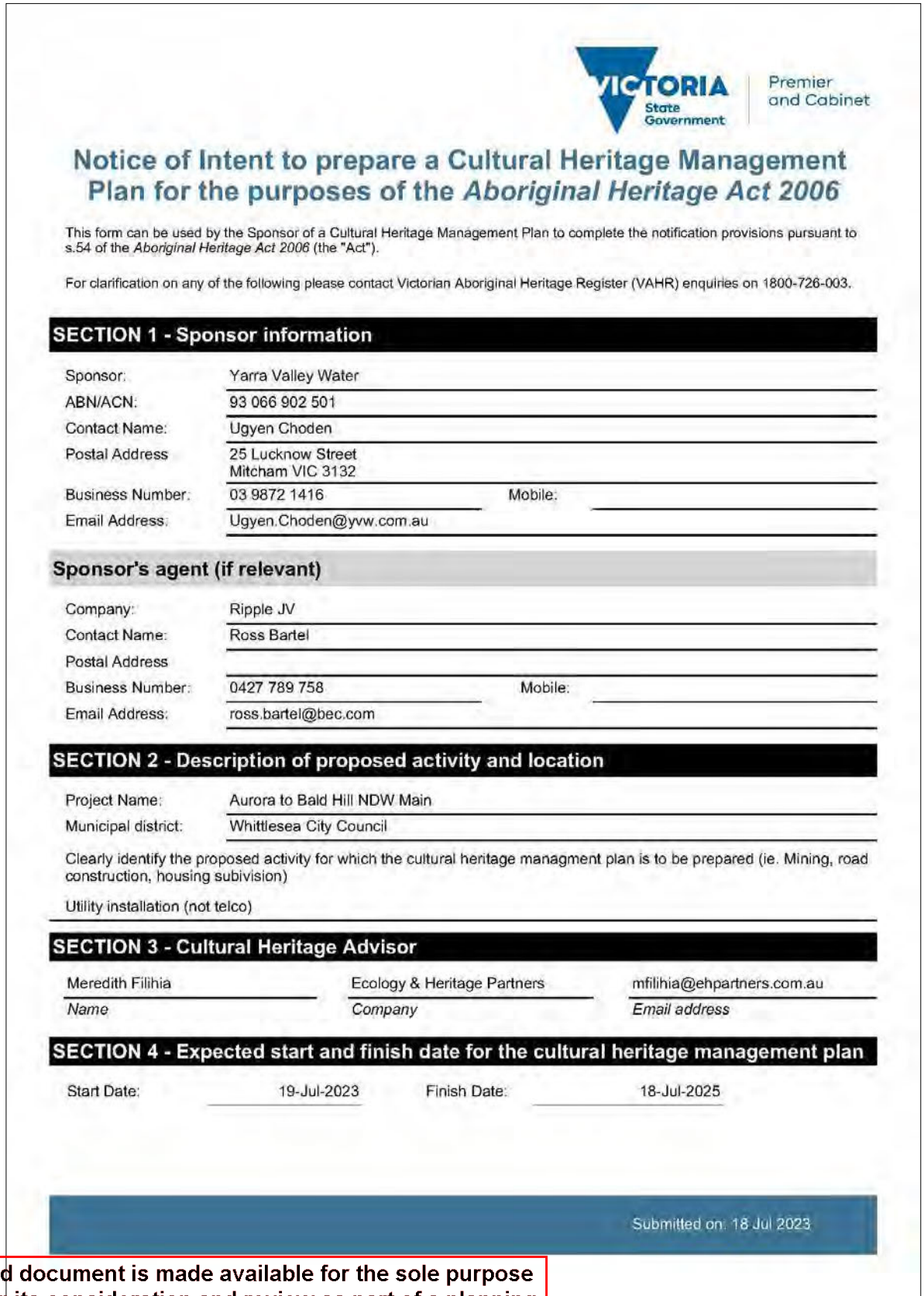
Appendix 1: Notice of Intent for Cultural Heritage Management Plan



VICTORIA State Government | Premier and Cabinet

Notice of Intent to prepare a Cultural Heritage Management Plan for the purposes of the *Aboriginal Heritage Act 2006*

This form can be used by the Sponsor of a Cultural Heritage Management Plan to complete the notification provisions pursuant to s.54 of the *Aboriginal Heritage Act 2006* (the "Act").

For clarification on any of the following please contact Victorian Aboriginal Heritage Register (VAHR) enquiries on 1800-726-003.

SECTION 1 - Sponsor information

Sponsor:	Yarra Valley Water		
ABN/ACN:	93 066 902 501		
Contact Name:	Ugyen Choden		
Postal Address	25 Lucknow Street Mitcham VIC 3132		
Business Number:	03 9872 1416	Mobile:	
Email Address:	Ugyen.Choden@yvw.com.au		

Sponsor's agent (if relevant)

Company:	Ripple JV		
Contact Name:	Ross Bartel		
Postal Address			
Business Number:	0427 789 758	Mobile:	
Email Address:	ross.bartel@bec.com		

SECTION 2 - Description of proposed activity and location

Project Name:	Aurora to Bald Hill NDW Main
Municipal district:	Whittlesea City Council

Clearly identify the proposed activity for which the cultural heritage managment plan is to be prepared (ie. Mining, road construction, housing subivision)

Utility installation (not telco)

SECTION 3 - Cultural Heritage Advisor

Name	Company	Email address
Meredith Filihia	Ecology & Heritage Partners	mfilihia@ehpartners.com.au

SECTION 4 - Expected start and finish date for the cultural heritage management plan

Start Date: 19-Jul-2023 Finish Date: 18-Jul-2025

Submitted on: 18 Jul 2023

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SECTION 5 - Why are you preparing this cultural heritage management plan?

☑ A cultural heritage management plan is required by the Aboriginal Heritage Regulations 2007

What is the high Impact Activity as it is listed in the regulations?

Is any part of the activity an area of cultural heritage sensitivity, as listed in the regulations? 1

☐ Other Reasons (Voluntary)

☐ An Environment Effects Statement is required

☐ A Cultural Heritage Management Plan is required by the Minister for Aboriginal Affairs.

☐ An Impact Management Plan or Comprehensive Impact Statement is required for the activity

SECTION 6 - List the relevant registered Aboriginal parties (if any)

This section is to be completed where there are registered Aboriginal parties in relation to the management plan.

WURUNDJERI WOI-WURRUNG Cultural Heritage Aboriginal Corporation

SECTION 7A - List the relevant Aboriginal groups or Aboriginal people with whom the Sponsor intends to consult (if any)

*This section is to be completed only if the proposed activity in the management plan is to be carried out in an area where there is **no Registered Aboriginal Party.***

SECTION 7B - Describe the intended consultation process (if any)

*This section is to be completed only if the proposed activity in the management plan is to be carried out in an area where there is **no Registered Aboriginal Party.***

The Sponsor will submit the NOI to the RAP and meet with them regarding the project. All assessments will be conducted with the participation of the RAP

SECTION 8 – State who will be evaluating this plan (mandatory)

The plan is to be evaluated by:

☐ Joint - Registered Aboriginal Party AND The Secretary

☑ A Registered Aboriginal Party

If checked, list the relevant Registered Aboriginal Party Evaluating:

☐ The Secretary

☐ Victorian Aboriginal Heritage Council

SECTION 9 – Preliminary Aboriginal Heritage Tests (PAHTs)

List the Reference Number(s) of any PAHTs conducted in relation to the proposed activity:

SECTION 10 - Notification checklist

Submitted on: 18 Jul 2023

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Ensure that any relevant registered Aboriginal party/ies is also notified. A copy of this notice with a map attached may be used for this purpose.
(A registered Aboriginal party is allowed up to 14 days to provide a written response to a notification specifying whether or not it intends to evaluate the management plan.)

In addition to notifying the Deputy Director and any relevant registerd Aboriginal party/ies, a Sponsor must also notify any owner and/or occupier of any land within the area to which the management plan relates. A copy of this notice with a map attached may be used for this purpose.

Ensure any municipal council, whose municipal district includes an area to which the cultural heritage management plan relates, is also notified. A copy of this notice, with a map attached, may also be used for this purpose.

Submitted on: 18 Jul 2023

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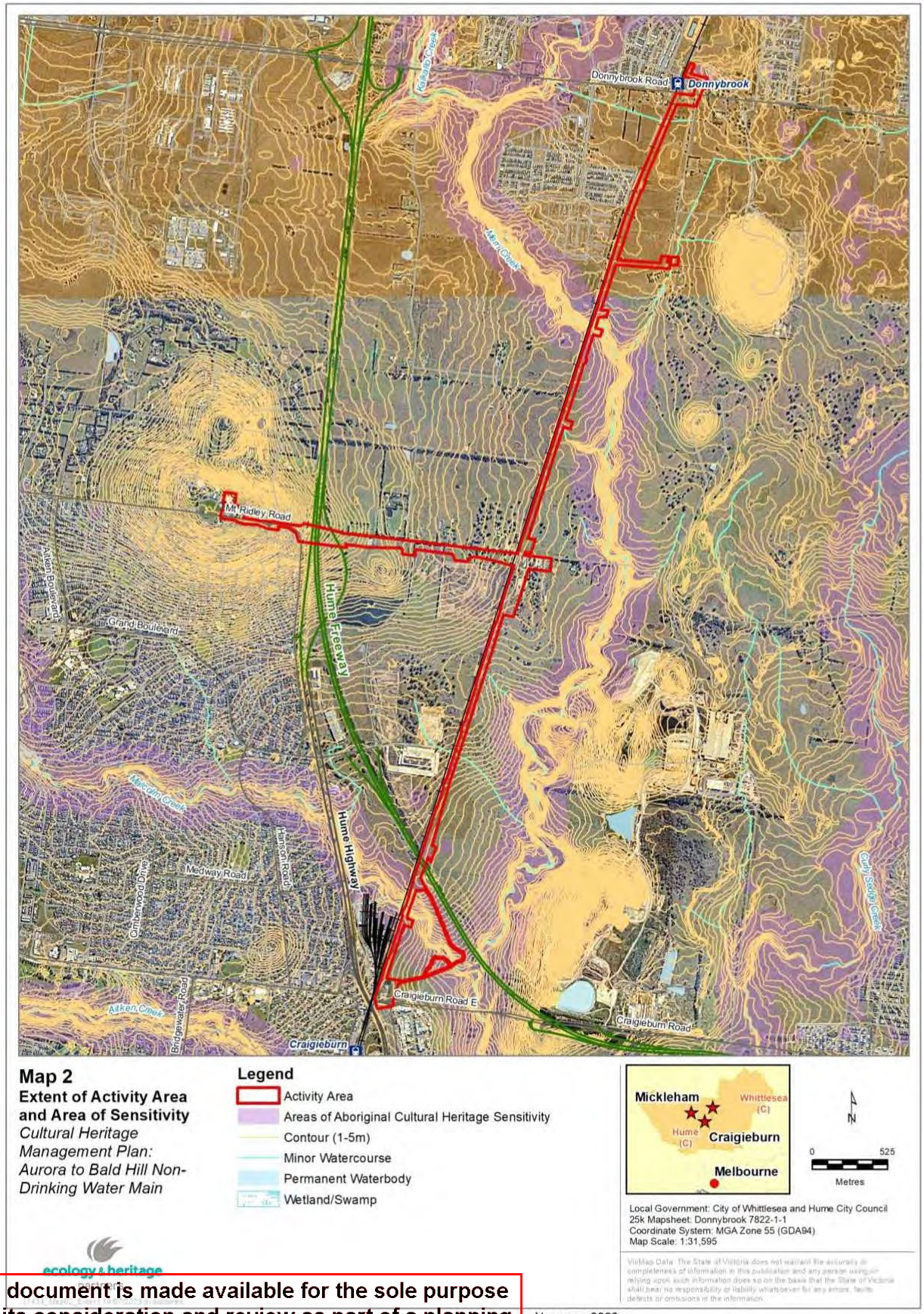

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Notification to RAP

Dr Meredith Filihia

From: VAHR@dpc.vic.gov.au
Sent: Tuesday, 18 July 2023 4:44 PM
To: Ugyen.Choden@yvw.com.au; ross.bartel@bec.com; Dr Meredith Filihia; rapofficer@wurundjeri.com.au; caroline@wurundjeri.com.au; wendy@wurundjeri.com.au
Subject: Notice of Intent to Prepare CHMP 19688 Yarra Valley Water - Aurora to Bald Hill NDW Main

To whom it may concern,

This is a formal automated response indicating that, on 18-Jul-2023, the Secretary, Department of Premier and Cabinet received a Notice of Intent to Prepare a Cultural Heritage Management Plan (CHMP) for: Yarra Valley Water - Aurora to Bald Hill NDW Main

The notification has been allocated the following Project Number: CHMP Plan ID. 19688 Please quote this number when making any future enquiries regarding this project.

If your activity lies within the boundaries of a registered Aboriginal party (RAP) you must also notify that organisation of your intention to prepare the CHMP (if you have not already done so). Forwarding this email to the RAP does not satisfy the requirements of notification under section 54(3) of the Act. Please refer to that section for the required details. Further information about registered Aboriginal parties can be found at: https://www.aboriginalheritagecouncil.vic.gov.au/victorias-current-registered-aboriginal-parties

If your CHMP is to be evaluated by this Department please make contact with the relevant Regional Manager to arrange a meeting before any complex assessment is undertaken. If no complex assessment is proposed it is advised that this decision is discussed with the Regional Manager prior to submission of the CHMP. Contact VAHR@dpc.vic.gov.au if you require assistance with contact details.

Please provide additional notification provisions (as set out below):

- Ensure any municipal council, whose municipal district includes an area to which the cultural heritage management plan relates, is notified. You may provide a copy of your Notice of Intent for this CHMP, to the relevant municipal council, for this purpose.
- Notification to the relevant Aboriginal groups or Aboriginal people with whom the Sponsor intends to consult (if any).

1

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RAP response

Dr Meredith Filihia

From: heritagebookings <heritagebookings@wurundjeri.com.au>
Sent: Monday, 24 July 2023 2:10 PM
To: Ugyen.Choden@yvw.com.au
Cc: Dr Meredith Filihia; ross.bartel@beca.com; Wendy Morrison; Caroline Spry; Rebecca Zeidan; Ariana Spencer-Gardner; Lauren Modra; Natalie Langowski
Subject: Wurundjeri Notice of Intent Response: CHMP 19688 Yarra Valley Water - Aurora to Bald Hill NDW Main
Attachments: Request for Wurundjeri Corporation Field Representative Effective Mar 2023.doc; Request for Wurundjeri Corporation Heritage Meeting Effective Mar 2023.docx; Wurundjeri Corporation HU Fees and Policies Effective 26 Jun 23.docx; WWCHAC Evaluation Payment Instructions.pdf

Dear Ugyen Choden,

CHMP 19688 Yarra Valley Water - Aurora to Bald Hill NDW Main

Your notification has been accepted and the Wurundjeri Woi-wurrung Cultural Heritage Aboriginal Corporation advises that it intends to evaluate this plan when complete, in accordance with Division 4, Section 55 of the *Aboriginal Heritage Act* 2006. We also advise that during the preparation of this plan, the Wurundjeri Aboriginal Corporation wishes to:

- Consult with you in relation to the assessment of the area for the purposes of the plan
- Participate in the conduct of the assessment
- Consult with the sponsor in relation to the conditions to be included in the plan.

Please note that before any fieldwork program commences it will be necessary for your heritage advisor to participate in a Project Establishment Meeting at the Wurundjeri office to discuss the project. It is preferable for the project sponsor to attend the Project Establishment Meeting as well. As the Project Establishment Meeting provides an opportunity for all parties to clarify the aims of the CHMP and methodology for any fieldwork program, it is helpful if you and/or your heritage advisor can bring along the following information to expedite these discussions:

- Aerial photo of the Activity Area
- A clear map of the Activity Area
- Aboriginal site location data within the geographic region
- Site cards of any sites already recorded in the Activity Area.

If you require any additional information about this advice, please contact by telephone on 03 9416 2905 or by email: caroline@wurundjeri.com.au & wendy@wurundjeri.com.au

We look forward to meeting with you soon to discuss the project.

1

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Regards,
RAP Officer (Temp)
Wurundjeri Woi-wurrung Cultural Heritage Aboriginal Corporation
1st Floor Providence Building | Abbotsford Convent
1 St Heliers Street | Abbotsford VIC 3067
Ph: 03 9416 290

Wurundjeri
Woi-wurrung

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Notification to LGAs

Dr Meredith Filihia

From: Conor Gamble
Sent: Friday, 21 July 2023 10:43 AM
To: contactus@hume.vic.gov.au
Cc: Dr Meredith Filihia
Subject: Notice of Intent (NOI) for CHMP 19688 - Aurora to Bald Hill NDW Main
Attachments: herNoticeOfIntentForm_-18Jul2023-044416.pdf

Good Morning,
Ecology and Heritage Partners has been engaged to prepare CHMP 19688, please see the attached NOI.

Thank you for your time,

Conor Gamble
| Archaeologist Technical Advisor/ Heritage Advisor
Ecology and Heritage Partners
T 1300 839 325 | M 0474 230 284 | cgamble@ehpartners.com.au | www.ehpartners.com.au
Melbourne | Adelaide | Brisbane | Canberra | Geelong | Sydney



Ecology and Heritage Partners acknowledge the Traditional Owners of the country we live and work on, and we pay our respect t o Elders past, present and emerging.

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Dr Meredith Filihia

From: Conor Gamble
Sent: Friday, 21 July 2023 10:46 AM
To: info@whittlesea.vic.gov.au
Cc: Dr Meredith Filihia
Subject: Notice of Intent (NOI) for CHMP 19688 - Aurora to Bald Hill NDW Main
Attachments: herNoticeOfIntentForm_-18Jul2023-044416.pdf

Good Morning,
Ecology and Heritage Partners has been engaged to prepare CHMP 19688, please see the attached NOI.

Thank you for your time,

Conor Gamble
| Archaeologist Technical Advisor/ Heritage Advisor
Ecology and Heritage Partners
T 1300 839 325 | M 0474 230 284 | cgamble@ehpartners.com.au | www.ehpartners.com.au
Melbourne | Adelaide | Brisbane | Canberra | Geelong | Sydney



Ecology and Heritage Partners acknowledge the Traditional Owners of the country we live and work on, and we pay our respect to Elders past, present and emerging.

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Appendix 2: Heritage Legislation

A2.1 Victorian *Aboriginal Heritage Act 2006*

The *Aboriginal Heritage Act 2006* protects Aboriginal cultural heritage in Victoria. A key part of the legislation is that Cultural Heritage Management Plans (CHMPs) are required to be prepared by Sponsors (the developer) and qualified Heritage Advisors in accordance with the *Aboriginal Heritage Act 2006* and the accompanying *Aboriginal Heritage Regulations 2018*. A CHMP is the assessment of an area (known as an 'activity area') for Aboriginal cultural heritage values, the results of which form a report (the CHMP) which details the methodology of the assessment and sets out management conditions and contingency measures to be undertaken before, during and after an activity (development) to manage and protect any Aboriginal cultural heritage present within the area examined.

The preparation of a CHMP is mandatory under the following circumstances:

- If the *Aboriginal Heritage Regulations 2018* require a CHMP to be prepared (s. 47);
- If the Minister of Aboriginal Victoria requires a CHMP to be prepared (s. 48); or
- If an Environmental Impact Statement (EIS) is required by the *Environment Effects Act 1978* (s. 49).

The *Aboriginal Heritage Regulations 2018* require a CHMP to be prepared:

- If all or part of the proposed activity is a 'high impact activity'; and
- If all or part of the activity area is an area of 'cultural heritage sensitivity'; and
- If all or part of the activity area has not been subject to 'significant ground disturbance'.

The preparation of a CHMP can also be undertaken voluntarily. Having an approved CHMP in Place can reduce risk for a project during the construction phase by ensuring there are no substantial delays if sites happen to be found. Monitoring construction works is also rarely required if an approved CHMP is in Place.

Approval of a CHMP is the responsibility of the Registered Aboriginal Party who evaluates the CHMP and then it is lodged with the Secretary of the Department of Premier and Cabinet to take affect or, if there is no RAP in Place for the activity area, it is evaluated by the Secretary of the DPC (FP-SR)(DPC 2016). They will be examining the CHMPs in detail with key points including:

- Addressing whether harm to heritage can be avoided or minimised;
- All assessments (including test excavations) must be completed before management decisions are formulated; and
- Survey and excavation must be in accordance with proper archaeological practice and supervised by a person appropriately qualified in archaeology.

There are three types of CHMPs that may be prepared (*First Peoples-State Relations 2024b*). These are: Desktop; Standard; and Complex. All three types are assessed according to the process set out in the diagram below (Ecology and Heritage Partners 2016):

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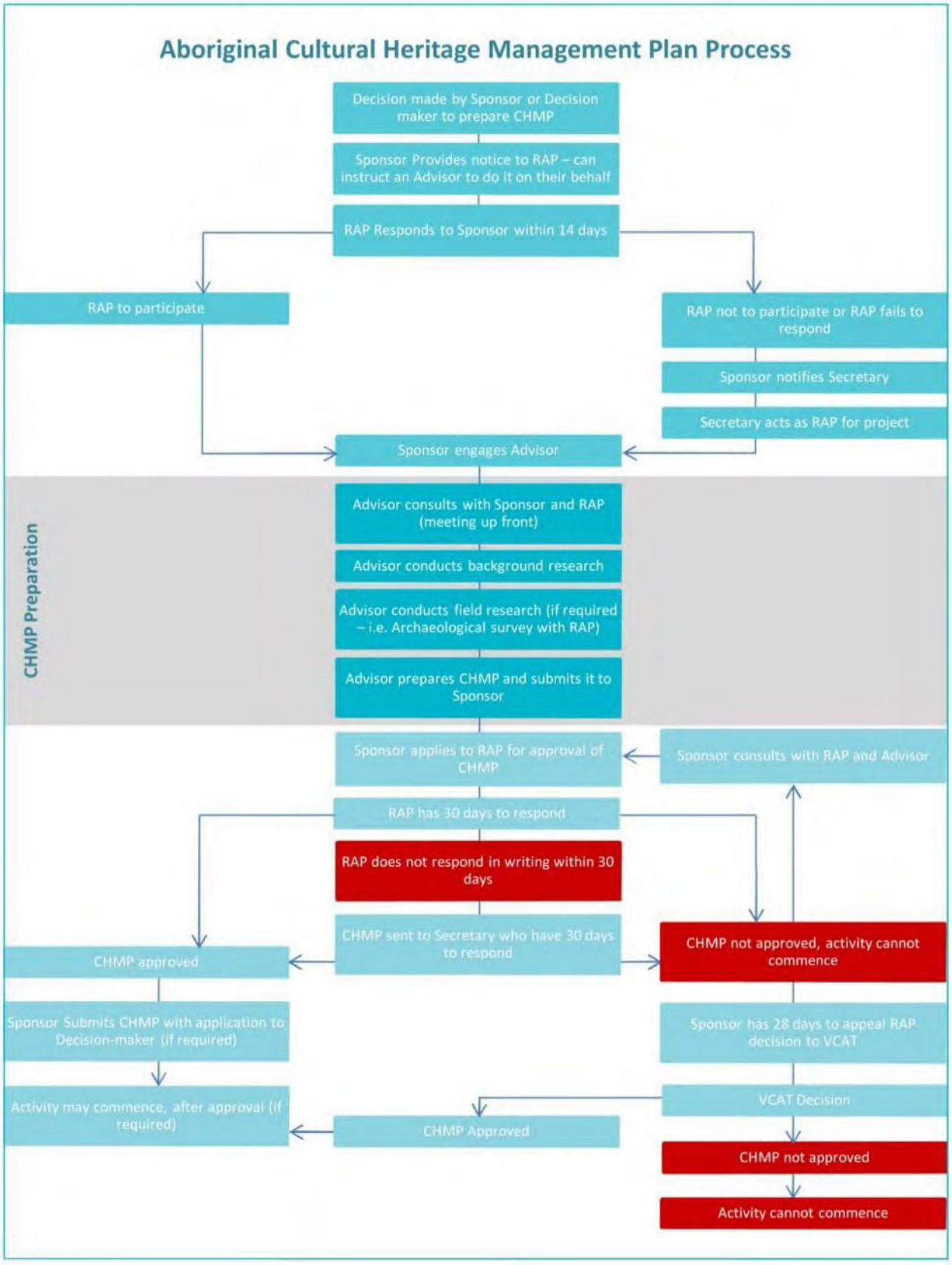

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A desktop CHMP is a literature review. If the results of the desktop show it is reasonably possible that Aboriginal cultural heritage could be present in the activity area, a standard assessment will be required.

A standard assessment involves a literature review and a ground survey of the activity area. Where the results of ground survey undertaken during a standard assessment have identified Aboriginal cultural heritage within the activity area, soil and sediment testing, using an auger no larger than 12 cm in diameter, may be used to assist in defining the nature and extent of the identified Aboriginal cultural heritage (Regulation 59[4]).

Where the results of ground survey undertaken during a standard assessment have identified Aboriginal cultural heritage within the activity area or areas which have the potential to contain Aboriginal cultural heritage subsurface, a complex assessment will be required. A complex assessment involves a literature review, a ground survey, and subsurface testing. Subsurface testing is the disturbance of all or part of the activity area or excavation of all or part of the activity area to uncover or discover evidence of Aboriginal cultural heritage (Regulation 62[1]).

It is strongly advised that for further information relating to heritage management (e.g. audits, stop orders, inspectors, forms, evaluation fees, status of RAPs and penalties for breaching the Act) Sponsors should access the First Peoples-State Relations website (FP-SR 2024c (https://www.firstpeoplesrelations.vic.gov.au/protecting-heritage-and-enforcing-act).

The flow chart above also assists in explaining the process relating to CHMPs.

A2.2 Commonwealth *Native Title Act 1993*

Native Title describes the rights and interests of Aboriginal and Torres Strait Islander people in land and waters, according to their traditional laws and customs. In Australia, Aboriginal and Torres Strait Islander people's rights and interests in land were recognised in 1992 when the High Court delivered its historic judgment in the case of Mabo v the State of Queensland. This decision overturned the legal fiction that Australia upon colonisation was terra nullius (land belonging to no-one). It recognised for the first time that Indigenous Australians may continue to hold native title.

Native Title rights may include the possession, use and occupation of traditional country. In some areas, native title may be a right of access to the area. It can also be the right for native title holders to participate in decisions about how others use their traditional land and waters. Although the content of native title is to be determined according to the traditional laws and customs of the title holders, there are some common characteristics. It may be possessed by a community, group, or individual depending on the content of the traditional laws and customs. It is inalienable (that is, it cannot be sold or transferred) other than by surrender to the Crown or pursuant to traditional laws and customs. Native Title is a legal right that can be protected, where appropriate, by legal action.

Native Title may exist in areas where it has not been extinguished (removed) by an act of government. It will apply to Crown land but not to freehold land. It may exist in areas such as:

- Vacant (or unallocated) Crown land;
- Forests and beaches;
- National parks and public reserves;

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- Some types of pastoral leases;
- Land held by government agencies;
- Land held for Aboriginal communities;
- Any other public or Crown lands; and/or
- Oceans, seas, reefs, lakes, rivers, creeks, swamps and other waters that are not privately owned.

Native Title cannot take away anyone else's valid rights, including owning a home, holding a pastoral lease or having a mining lease. Where native title rights and the rights of another person conflict the rights of the other person always prevail. When the public has the right to access Places such as parks, recreation reserves and beaches, this right cannot be taken away by Native Title. Native Title does not give Indigenous Australians the right to veto any project. It does mean, however, that everyone's rights and interests in land and waters have to be taken into account.

Indigenous people can apply to have their native title rights recognised by Australian law by filing a native title application (native title claim) with the Federal Court. Applications are required to pass a test to gain certain rights over the area covered in the application. The Native Title Tribunal (NNTT) was established to administer application processes. Once applications are registered, the NNTT will notify other people about the application and will invite them to become involved so all parties can try to reach an agreement that respects everyone's rights and interests. If the parties cannot agree, the NNTT refers the application to the Federal Court and the parties argue their cases before the Court.

As a common law right, native title may exist over areas of Crown land or waters, irrespective of whether there are any native title claims or determinations in the area. Native Title will therefore be a necessary consideration when Government is proposing or permitting any activity on or relating to Crown land that may affect native title[4].

A2.3 Victorian *Planning and Environment Act 1987*

All municipalities in Victoria are covered by land use planning controls which are prepared and administered by State and local government authorities. The legislation governing such controls is the *Planning and Environment Act 1987*. Places of significance to a locality can be listed on a local planning scheme and protected by a Heritage Overlay (or other overlay where appropriate). Places of Aboriginal cultural heritage significance are not often included on local government planning schemes.

A2.4 Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*

The *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) provides a national framework for the protection of heritage and the environment and the conservation of biodiversity. The EPBC Act is administered by the Australian Government Department of Climate Change, Energy, the Environment and Water (DCCEEW). The Australian Heritage Council assesses if a nominated Place is appropriate for listing on

[4] The information in this section was taken from the Department of Sustainability and Environment, Fact Sheet on Native Title, 2008

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either the National or Commonwealth Heritage Lists and makes a recommendation to the Minister on that basis.

The Minister for the Environment, Water, Heritage and the Arts makes the final decision on listing. DCCEEW also administers the Register of the National Estate.

The objectives of the EPBC Act are:

- To provide for the protection of the environment, especially those aspects of the environment that are matters of national environmental significance;
- To promote ecologically sustainable development through the conservation and ecologically sustainable use of natural resources;
- To promote the conservation of biodiversity;
- To provide for the protection and conservation of heritage;
- To promote a cooperative approach to the protection and management of the environment involving governments, the community, land-holders and indigenous peoples;
- To assist in the cooperative implementation of Australia's international environmental responsibilities;
- To recognise the role of indigenous people in the conservation and ecologically sustainable use of Australia's biodiversity; and
- To promote the use of indigenous peoples' knowledge of biodiversity with the involvement of, and in cooperation with, the owners of the knowledge.

A2.5 Victorian *Coroners Act 2008*

The Victorian *Coroners Act 2008* requires the reporting of certain deaths and the investigation of certain deaths and fires in Victoria by coroners to contribute to the reduction of preventable deaths. Of most relevance to heritage is the requirement for any "reportable death" to be reported to the police (s. 12[1]). The *Coroners Act 2008* requires that the discovery of human remains in Victoria (s. 4[1]) of a person whose identity is unknown (s. 4[g]) must be reported to the police.

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Appendix 3: Archaeological Survey and Excavation Attributes

ABORIGINAL CULTURAL HERITAGE PLACE ASSESSMENT:

Project Name: Aurora to Bald Hill Non-Drinking Water Pipeline Stage 1

Author/Consultant: Meredith Filihia, Conor Gamble, Maria Daikos, Georgia Carra and Dylan Branda-Pawlaczyk

Cultural Heritage Management Plan #: 19688

Survey Attributes

Survey Date: 13.09.2023 Ground Surface Visibility: 10%

Actual Survey Coverage (m^2): 422,300 Effective Survey Coverage (m^2): 25,675 metres squared

Survey Spacing (m): 2 Transect Width (m): 8 Number in Crew: 4

Landform: Hill, Volcanic Plain and Creek Line Vegetation: Grass coverage and trees around the perimeter of some properties.

Disturbance: areas of ground exposure.

Survey Method	Survey Design	Sample	Survey Type
☑ Pedestrian	☐ Opportunistic	☑ Area	☑ Surface
☐ Remote sensing (specify)	☐ Random	☐ Transect	
	☑ Systematic	☐ Locality	
	☐ Stratified	☐ Haphazard	
	☐ Other	☐ Other	

Excavation method

Excavation Date: 21 days (20-22 February and 05 April 2024 and 19 November to 04 December 2024)

Area Excavated: 2.93%

Excavation Spacing (m): 5 Transect Width (m): 1 Number in Crew: 4

Test Trench Size (m): 1 x 1 m TP and 5 x 1 m MTP Depth (m): 0.5 m

Excavation Method		Excavation Design	Sample
☑ Manual	☑ Uncontrolled Excavation (e.g. shovel pit)	☐ Opportunistic	☐ Area
☑ Mechanical		☐ Random	☑ Transect
☐ Auger		☑ Systematic	☐ Locality
	☐ Monitoring	☐ Stratified	☐ Haphazard
	☑ Controlled Excavation	☐ Other	☐ Other

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Appendix 4: Coordinates, Station, Back Sight, Test Pits and Shovel Test Pits

Table A4.1: Test Pit (TP03) Coordinates (GDA 94, Zone 55)

TP03 Size (1 x 1 m)	Easting	Northing	S/W Corner (m)	N/W Corner (m)	N/E Corner (m)	S/E Corner (m)
South / West Corner	318038.6781	5839920.503				
Surface			1.438	1.465	1.446	1.425
Base			1.474	1.52	1.469	1.46

Table A4.2: Test Pit (TP04) Coordinates (GDA 94, Zone 55)

TP04 Size (1 x 1 m)	Easting	Northing	S/W Corner (m)	N/W Corner (m)	N/E Corner (m)	S/E Corner (m)
South / West Corner	320584.7383	5842770.049				
Surface			1.19	1.192	1.205	1.231
Base			1.233	1.22	1.237	1.291

Table A4.3: Test Pit (TP05) Coordinates (GDA 94, Zone 55)

TP05 Size (1 x 1 m)	Easting	Northing	S/W Corner (m)	N/W Corner (m)	N/E Corner (m)	S/E Corner (m)
South / West Corner	319307.6744	5838927.91				
Surface			1.57	1.59	1.61	1.53
Base			1.645	1.685	1.71	1.675

Table A4.4: Test Pit (TP06) Coordinates (GDA 94, Zone 55)

TP06 Size (1 x 1 m)	Easting	Northing	S/W Corner (m)	N/W Corner (m)	N/E Corner (m)	S/E Corner (m)
South / West Corner	319300.4819	5838909.375				
Surface			1.53	1.545	1.575	1.555
Base			1.65	1.605	1.70	1.66

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Table A4.5: Test Pit (TP07) Coordinates (GDA 94, Zone 55)

TP07 Size (1 x 1 m)	Easting	Northing	S/W Corner (m)	N/W Corner (m)	N/E Corner (m)
South / West Corner	320151.1574	5841438.629			
Surface			2.15	2.10	2.17
Base			2.20	2.20	2.22

Table A4.6: Test Pit (TP08) Coordinates (GDA 94, Zone 55)

TP08 Size (1 x 1 m)	Easting	Northing	S/W Corner (m)	N/W Corner (m)	N/E Corner (m)	S/E Corner (m)
South / West Corner	320602.3863	5842788.485				
Surface			1.560	1.580	1.575	1.530
Base			1.635	1.690	1.690	1.660

Table A4.7: Test Pit (TP09) Coordinates (GDA 94, Zone 55)

TP09 Size (1 x 1 m)	Easting	Northing	S/W Corner (m)	N/W Corner (m)	N/E Corner (m)	S/E Corner (m)
South / West Corner	319125.2245	5838357.196				
Surface			1.365	1.355	1.370	1.395
Base			1.440	1.400	1.450	1.440

Table A4.8: Test Pit (TP10) Coordinates (GDA 94, Zone 55)

TP10 Size (1 x 1 m)	Easting	Northing	S/W Corner (m)	N/W Corner (m)	N/E Corner (m)	S/E Corner (m)
South / West Corner	319119.8889	5838342.186				
Surface			1.670	1.630	1.650	1.690
Base			1.710	1.680	1.700	1.740

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Table A4.8: Test Pit (TP06-2) Coordinates (GDA 94, Zone 55)

TP06-2 Size (1 x 1 m)	Easting	Northing	S/W Corner (m)	N/W Corner (m)	N/E Corner (m)	S/E Corner (m)
South / West Corner	319303.29	5838909..04				
Surface			1.53	1.545	1.575	1.555
Base			1.75	1.705	1.79	1.86

Table A4.10: Mechanical Test Pit Coordinates (GDA 94, Zone 55)

Mechanical Test Pit Number	Easting	Northing	Depth (m)
MTP06	320272.2813	5841794.616	0.13
MTP07	320653.6024	5841792.82	0.14
MTP09	318391.2741	5839872.586	0.03
MTP10	318490.8645	5839858.578	0.09
MTP11	318589.9937	5839845.637	0.1
MTP12	319482.1919	5839724.609	0.29
MTP13	319383.1081	5839737.75	0.3
MTP14	319282.9378	5839751.419	0.25
MTP15	318074.9665	5839911.71	0.5
MTP16	319542.2207	5839698.448	0.23
MTP17	318762.6102	5837254.78	0.27
MTP18	320070.9222	5841317.806	0.21
MTP19	320106.9016	5841417.247	0.25
MTP21	318845.4475	5837502.851	0.17
MTP22	318912.8037	5837673.54	0.25
MTP23	318805.7453	5837345.678	0.3
MTP26	318579.4574	5836655.706	0

Table A4.11: Radial Test Pit Coordinates (GDA 94, Zone 55)

Mechanical Test Pit Number	Easting	Northing	Depth (m)
MTP14 E1	319290.9235	5839754.82	0.23
MTP14 N1	319285.7689	5839761.16	0.25
MTP14 N2	319286.9277	5839765.99	0.25
MTP14 N3	319288.345	5839770.922	0.4
MTP14 S1	319281.6889	5839741.741	0.33

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Mechanical Test Pit Number	Easting	Northing	Depth (m)
MTP14 W1	319280.4339	5839757.475	0.35
MTP17RN1	318767.566	5837263.416	0.24
MTP17RW1	318759.1852	5837259.831	0.1
MTP17RS1	318760.3718	5837249.481	0.1
MTP17RE1	318769.6535	5837256.113	0.1
MTP19RN1	320108.6155	5841427.681	0.26
MTP19RE1	320112.87	5841427.681	0.2
MTP19RS1	320106.7393	5841411.837	0.2

Table A4.11: Geotechnical Test Pit Coordinates (GDA 94, Zone 55)

Geotechnical Test Pit Number	Easting	Northing	Depth (m)
STN 01	318777.2	5873282.0	15.00

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Appendix 5: Gazetteer

Table A5.1: Gazetteer

Place Name & Number	Primary Grid Coordinate (GDA 94, Zone 55)	Place Type	Landform	Archaeological/Scientific Significance
VAHR 7822-1574 (Craigieburn Bypass 6)	E 318895, N 5837671	Artefact Scatter	Plain	Low
VAHR 7822-4957 (Aurora to Summerhill LDAD)	E 319286.928 N 5839765.99	Low Density Artefact Distribution	Plain	Low

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Appendix 6: Artefact Catalogues

Table A6.1: Artefact Attributes

Depth (mm)	Material Type	Artefact Type	Platform Type	Platform Width (mm)	Platform Thickness (mm)	Termination Type (mm)	Flake Scars	Maximum Dimension (mm)	Oriented Length (mm)	Oriented Width (mm)	Oriented Thickness (mm)
VAHR 7822-1574 (Craigieburn Bypass 6)											
0	Silcrete	Blade	NA	NA	NA	NA	NA	NA	38	17	NA
0	Botryoidal Magnesite*	Core	NA	NA	NA	NA	NA	NA	NA	NA	NA

*No artefact dimensions are recorded for any comparable artefact in the artefact data for CHMP 12847 (see Goldfarb and Hill 2014: 192)

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Victorian Aboriginal Heritage Register - Aboriginal Place Record

Aurora to Summerhill LDAD - 7822-4957

Low Density Artefact Distribution Component Form

Ref No	Easting	Northing	Zone	Depth (m)	Raw Material	Primary Form	Cortex %	% of Edge with Retouch /Usewear	Flake Platform	Flake Termination	Number of Complete Scars	Longest Scar	Formal Tool / Core Type	Secondary Modifications	Length - axial for flakes & blades	Width - axial for flakes & blades	Thickness (mm)	Max Dim. (mm)
1	319286.928	5839765.990	55	0.300	Silcrete	Angular Fragment	67-99%	None							17.410	10.410	6.160	17.430
2	319282.938	5839751.419	55	0.300	Silcrete	Angular Fragment	None	None							17.590	7.020	6.030	17.590
3	319282.938	5839751.419	55	0.300	Silcrete	Flake - Proximal	1-32%	1-32%	Plain						14.110	7.450	1.830	14.110
4	319282.938	5839751.419	55	0.300	Quartzite	Angular Fragment	None	None							10.350	14.280	5.530	10.350
5	319282.938	5839751.419	55	0.100	Quartzite	Flake - Distal	None	1-32%		Feather					11.590	8.390	3.350	11.590
6	318762.610	5837254.780	55	0.100	Silcrete	Blade - Medial	None	33-66%					Point - Unifacial		24.530	9.620	4.160	24.530
7	318762.610	5837254.780	55	0.100	Quartzite	Flake - Longitudinal Split	None	None		Hinge					13.900	13.640	4.160	21.110
8	318762.610	5837254.780	55	0.100	Quartzite	Flake - Proximal	None	None	Plain						13.560	13.090	4.280	14.110
9	320106.902	5841417.247	55	0.200	Silcrete	Flake - Complete	None	1-32%	Plain	Hinge			Scraper - Amorphous		27.570	37.830	12.120	41.300
10	320106.902	5841417.247	55	0.200	Quartz	Flake - Proximal	None	None	Crushed						12.510	17.150	5.370	17.180
11	320106.902	5841417.247	55	0.300	Tachylite	Flake - Complete	None	None	Plain	Feather					20.140	12.620	4.460	22.320

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Appendix 7: Glossary

Items highlighted in ***bold italics*** in the definition are defined elsewhere in the glossary.

Acronym	Description
Aboriginal Cultural Heritage Likelihood	An area assessed by a Heritage Advisor as having potential for containing either surface or subsurface Aboriginal archaeological deposits. This term is used in this report to differentiate between *legislated areas of cultural heritage sensitivity* and areas considered by an archaeologist to be sensitive.
Aboriginal Place	An area in Victoria or the coastal waters of Victoria that is of cultural heritage significance to the Aboriginal people of Victoria (the Act). For the purposes of this CHMP, an Aboriginal Place is an *Aboriginal site* that has been registered on the *VAHR*.
Aboriginal Site	A location containing Aboriginal cultural heritage, e.g. *Artefact scatter*, *isolated artefact*, *scarred tree*, *shell midden*, whether or not the site is registered in the *VAHR*, cf. *Aboriginal Place*.
Angular Fragment	An artefact which has technologically diagnostic features but has no discernible ventral or dorsal surface and hence is unidentifiable as either a flake or a core
Area of Cultural Heritage Sensitivity	An area specified as an area of cultural heritage sensitivity in Division 3 or Division 4 of Part 2 of the *Aboriginal Heritage Regulations 2018*.
Artefact Scatter	Stone artefact scatters consist of more than one stone artefact. Activities associated with this Place type include stone tool production, hunting and gathering or domestic Places associated with campsites. Stone artefacts may be flakes of stone, cores (flakes are removed from the stone cores) or tools. Some scatters may also contain other material such as charcoal, bone, shell and ochre.
Assemblage	The name given to encompass the entire collection of artefacts recovered by archaeologists, invariably classified into diagnostic items used to describe the material culture.
Backed	When one margin of a flake is retouched at a steep angle, and that margin is opposite a sharp edge. The steep margin is formed by bi-polar or hammer and anvil knapping. Also used to describe artefacts with backing, e.g. Backed artefact.
Backed Artefact	A class of artefact employed by archaeologists to describe artefacts which are backed. Sometimes divided into elouera, bondi point, microlith and geometric.
Bipolar	A flaking technique where the object to be reduced is rested on an anvil and struck. This process is identified by flakes with platform angles close to 90 degrees as well as apparent initiation from both ends. Some crushing may also be visible.
Burials	Aboriginal communities strongly associate burial Places with a connection to country and are opposed to disturbance of burials or their associated Places. General considerations for the presence of burial Places are the suitability of Subsurface deposits for digging purposes; with soft soil and sand being the most likely. They are more likely near water courses or in dunes near old lake beds or near the coast. Burials are often located near other Places such as oven mounds, *shell middens* or *artefact scatters*.
Chert	A cryptocrystalline siliceous sedimentary stone.
CHMP	Cultural Heritage Management Plan. A plan prepared under the *Aboriginal Heritage Act 2006*.
Core	An artefact which has technologically diagnostic features. Generally, this class of artefact has only negative scars from flake removal, and thus no ventral surface, however, for the purposes of this research core has been employed to encompass those artefacts which were technically flakes but served the function of a core (ie. The provider of flakes).
Cortex	The weathered outer portion of a stone, often somewhat discoloured and coarser compared with the unweathered raw material.
Decortication	The process of removing cortex from a stone (generally by flaking).

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Acronym	Description
Deep Ripping	The ploughing of soil using a ripper or subsoil cultivation tool to a depth of 60 cm or more (see *significant ground disturbance*).
DPC	Department of the Premier and Cabinet. The Victorian State Government department, of which FP-SR is a part, responsible for management of Aboriginal cultural heritage in Victoria.
FP-SR	First Peoples – State Relations. Formally Aboriginal Victoria.
Flake	An artefact which has technologically diagnostic features and a ventral surface.
High Impact Activity	An activity specified as a high impact activity in Division 5 of Part 2 of the *Aboriginal Heritage Regulations 2018*.
HV	Heritage Victoria. A division of *DELWP* responsible for management of historical heritage in Victoria.
Isolated Finds or Artefacts	Isolated finds refer to a single artefact. These artefacts may have been dropped or discarded by its owner once it was of no use. This Place type can also be indicative of further subsurface archaeological deposits. These Place types can be found anywhere within the landscape; however, they are more likely to occur within contexts with the same favourable characteristics for stone artefact scatter Places. Isolated finds are no longer registered on the *VAHR* as a Place type; they now form part of an *LDAD*.
LDAD	Low Density Artefact Distribution. A category of *Aboriginal Place* type in the *VAHR* comprising single stone artefacts and/or distributions of multiple stone artefacts at concentrations of 10 or less artefacts in a 10 x 10 m area.
Manuport	An object which has been carried by humans to the Place.
Oriented Length	Dimension measured according to the following criteria: The length of the flake from the platform, at 90˚ to force indicators such as ring-crack, bulb of percussion, force ripples and striations, to the opposing end. Where there were an insufficient number of features present to take this measurement, such as when the flake was broken, this variable was not recorded (sometimes referred to as percussion length).
Oriented Thickness	Dimension measured at 90˚and bisecting the oriented width dimension. This was done from the ventral surface to the dorsal surface (sometimes referred to as percussion thickness).
Oriented Width	Dimension measured at 90˚and bisecting the oriented length dimension. This was done from one margin to the other. As this measurement and oriented thickness, both rely on oriented length, these were not recorded where the oriented length was not recorded (sometimes referred to as percussion width).
Potential Archaeological Deposit	An area of land that was not formally assessed, but is considered likely to contain surface or subsurface archaeological deposits.
Procurement	The process of obtaining raw material for reduction.
Quarries	Stone quarries were used to procure the raw material for making stone tools. Quarries are rocky outcrops that usually have evidence of scars from flaking, crushing and battering the rock. There may be identifiable artefacts near or within the Place such as unfinished tools, hammer stones, anvils and grinding stones.
Quartz	A crystalline form of silica.
RAP	Registered Aboriginal Party. An Aboriginal organisation with responsibilities relating to the management of Aboriginal cultural heritage for a specified area of Victoria under the *Aboriginal Heritage Act 2006*.
Raw Material	The kind of stone the artefacts were manufactured from.
Reduction	The process of removing stone flakes from another pieces of stone. Generally, this is performed by striking (hammerstone on core) one rock with another to remove a flake.

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Acronym	Description
Retouch	Retouch is when a *flake* is removed after the manufacture of the original flake. This sequence can be observed when a flake scar is present and encroaches over the ventral surface and thus must have been made after the initial flake removal. Recorded whether retouch was absent or present on the artefact.
Rock Shelter	A concave area in a cliff where the cliff overhangs; or a concave area in a tor where the tor overhangs; or a shallow cave, where the height of the concave area is generally greater than its depth.
Scarred Trees	It is known that the wood and bark of trees have been used for a variety of purposes, such as carrying implements, shield or canoes. The removal of this raw material from a tree produces a 'scar'. The identification of a scar associated with aboriginal custom as opposed to natural scarring can be difficult. The scar should be of a certain size and shape to be identifiable with its product; the tree should also be mature in age, from a time that aboriginal people were still active in the area.
Significant Ground Disturbance	Disturbance of topsoil or surface rock layer of the ground or a waterway by machinery in the course of grading, excavating, digging, dredging or *deep ripping*, but does not include ploughing other than *deep ripping*.
Silcrete	A silicified sedimentary stone, often with fine inclusions or grains in a cryptocrystalline matrix. Because of the nature of the grains in silcrete (a hindrance in knapping/flaking predictability) the stone is sometimes heat treated. This exposure to heat can be identified by the presence of pot-lidding as well as a 'lustre' to the stone which is otherwise absent in the stones' natural state. Exposure to sufficient heat homogenises the stone matrix and improves the knapping (flake path) predictive potential (Crabtree and Butler 1964; Mandeville and Flenniken 1974; Purdy 1974; Domanski and Webb 1992; Hiscock 1993; Domanski et al. 1994). Similar to indurated mudstone, it has also been demonstrated that silcrete from the hunter valley often turns a red colour after being exposed to heat (Rowney 1992; Mercieca 2000).
Stone Arrangements	Stone arrangements are Places where Aboriginal people have deliberately positioned stones to form shapes or patterns. They are often known to have ceremonial significance. They can be found where there are many boulders, such as volcanic areas and are often large in size, measuring over five metres in width.
Taphonomy	The study of the processes (both natural and cultural) which affect the deposition and preservation of both the artefacts and the Place itself.
Technology	A form of artefact analysis which is based upon the knapping/ manufacturing process, commonly used to subsequently infer behaviour patterns, cultural-selection and responses to raw material or the environment.
Thumbnail scraper	A conceptual class of artefact employed to describe small rounded retouched flakes with steep margins (based on the classification by Mulvaney and Kamminga 1999).
VAHR	Victorian Aboriginal Heritage Register. A register of *Aboriginal Places* maintained by *AV*.
VHI	Victorian Heritage Inventory. A register of Places and objects in Victoria identified as historical archaeological Places, areas or relics, and all private collections of artefacts, maintained by *HV*. Places listed on the VHI are not of State significance but are usually of regional or local significance. Listing on the *VHR* provides statutory protection for that a Place, except in the case where a Place has been "D-listed".
VHR	Victorian Heritage Register. A register of the State's most significant heritage Places and objects, maintained by *HV*. Listing on the VHR provides statutory protection for that a Place.

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Appendix 8: Geotechnical Testing Report Extract (Hi 2025).

Stantec

Borehole Record: STN01

Project: Aurora to Bald Hill NDW Main - Stage 1 Detailed Design	**Position:** Easting: 318,777.20	**Drill Rig:** Hanjin D&B
Client: Yarra Valley Water	Northing: 5,837,282.00	**Drill Supplier:** Qeal Infrastructure
Location: Craigieburn VIC, Australia	**Grid:** GDA2020	**Logged By:** NH
Job No: 300250010	**Elevation:** 186.88 mAHD	**Checked By:** SE
Started/Completed Date: 19/11/2024 to 20/11/2024	**Inclination/Azimuth:** -90°/N/A	**Log Sheet:** 1 OF 3

General comments: Groundwater measured at 2.880m depth on 12/12/2024 and at 2.924m depth on 10/01/2025.

Drilling: Method	Drilling: Resistance	Drilling: Casing	Water (m)	Samples	Field Testing	Depth (m)	RL (m AHD)	Graphic Log	Classification Code	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components	Moisture Condition	Consistency/Relative Density	Well Diagram	Structure & Other Observations
Solid Flight Auger		HW		Disturbed: 0.1-0.2 m: 0.2m Jar: 0.1-0.2 m: 0.2m Disturbed: 0.4-0.5 m: 0.5m		0.1 0.5 0.8	186.88		ML CH GC	Clayey SILT: low plasticity, brown, trace fine grained sand. Silty CLAY: high plasticity, black, trace fine grained sand. Clayey GRAVEL: fine to medium sized, with fine to coarse grained sand, brown.	w < PL D	F St D	Concrete Cement Grout 50mm PVC Solid	Topsoil Inferred Newer Volcanic Geology (Residual Soil) Becoming Extremely Weathered Material
										Commenced Coring at 0.8m				

Refer to Stantec Explanatory Notes for details of terms, abbrevia ons and symbols used as basis for descrip ons. Logging for geotechnical purposes has been performed in general accordance with AS1726 (2017). All logs should be read in conjunc on with the geotechnical report for which they were prepared.

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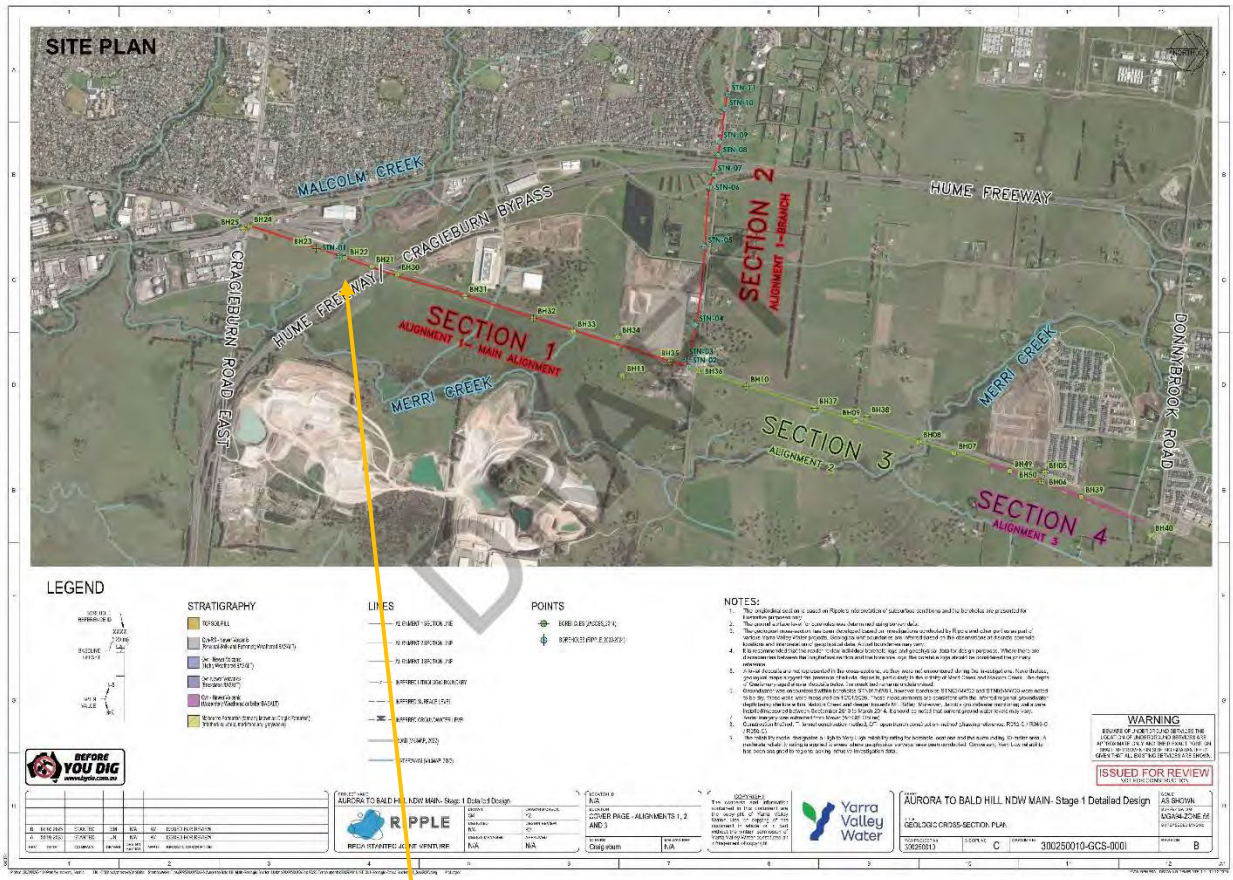
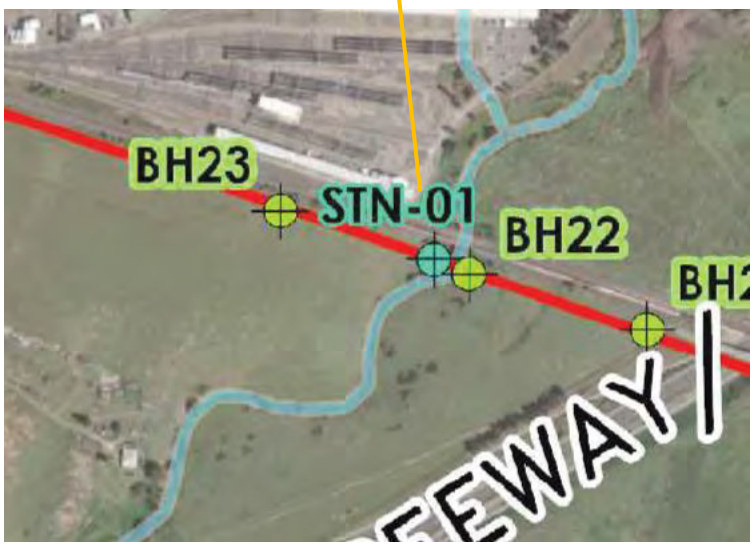
Location of borehole monitored during 2024 complex assessment (see Map 11) (Source: Hi 2025).





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Appendix 9: Standard Assessment and Complex Assessment Results for Areas Removed from Extent of Activity Area for CHMP 19688

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Standard Assessment

Langley Park Drive

The GSV within Langley Park Drive ranged from 0 to 5% within the paddocks due to dense grass coverage and 0% along the road (Plate 59 and Plate 60), with small patches of 30-40% GSV within a tributary of Merri Creek (Plate 61, Plate 20).



Plate 61: Activity area facing west, showing GSV of 0% within paddock (M. Daikos, 13 September 2023).



Plate 62: Activity area facing south-east, showing GSV of 0% within grass and road (M. Daikos, 13 September 2023).



Plate 63: Activity area facing east, showing GSV of 30-40% within a tributary of Merri Creek (M. Daikos, 13 September 2023).



Plate 64: Activity area facing south, showing GSV of 30-40% within a tributary of Merri Creek (M. Daikos, 13 September 2023).

The landform within this portion of the activity area is a plain (Plate 64):

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Plate 65: Activity area facing north near Langley Park Drive, showing Plain landform (M. Daikos, 13 September 2023).

The areas of disturbance are shown in the following list:

- Farm fencing (Plate 65);
- Dumped rubbish and pallets (Plate 66); and
- Rubbish (Pallets and bricks – Plate 67 and Plate 68).



Plate 66: Activity area facing south-west showing fence (M. Daikos 13 September 2023).



Plate 67: Activity area facing north showing fence post and pallets (M. Daikos 13 September 2023).

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Plate 68: Activity area facing north-west showing piles of pallets (M. Daikos 13 September 2023).



Plate 69: Activity area facing east showing pile of bricks (M. Daikos 13 September 2023).

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Complex Assessment

Table A9.1: Test Pit (TP01) Excavation outside Activity Area (GDA 94, Zone 55)

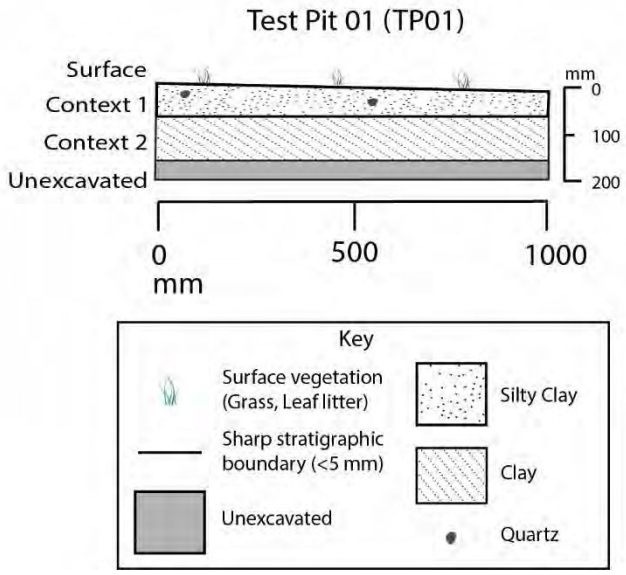
TP (SW) Coordinates	Stratigraphic Profile	Stratigraphic Description
	TP01 – Creek Landform	
E 320651.3273 N 5841824.885 (GDA 94, Zone 55)		*Context 1*: 00 to 60 mm—Light, grey, firm, dry, fine, silty clay. Small infrequent inclusions of quartz pebbles. Munsell 5YR 4/1, pH 6. *Context 2 (Base)*: 60 to 160 mm—Light, greyish brown, compacted, dry, fine clay. No inclusions, Deposit hard to dig. Base Clay. Munsell 5YR 4/1, pH 6.
	Figure 20: Stratigraphic Profile of TP01	
Location & Size	**TP Photograph**	**Place Name and Assemblage Details**
1 x 1 m		No artefacts present
	Plate 70: Stratigraphy of TP01 north section (R. Muhlen-Schulte 21.02.2024)	

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Table A9.2: Test Pit (TP02) Excavation outside Activity Area (GDA 94, Zone 55)

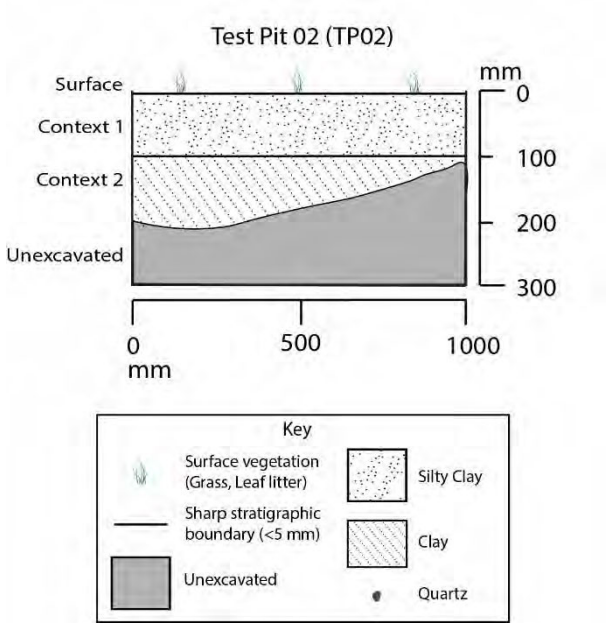
TP (SW) Coordinates	Stratigraphic Profile	Stratigraphic Description
	TP02– Creek Landform	
E 320633.3808 N 5841829.348 (GDA 94, Zone 55)	 **Figure 21:** Stratigraphic Profile of TP02	*Context 1*: 0 to 100 mm – Light grey, firm, dry, fine silty clay. Infrequent inclusions of quartz pebbles Munsell 5Yr 4/1, pH 6. *Context 2 (Base)*: 100 to 200 mm: Light, greyish brown, compacted, dry, fine clay. No inclusions. Munsell 5Yr 4/1, pH 6.
Location & Size	**TP Photograph**	**Place Name and Assemblage Details**
1 x 1 m	 **Plate 71:** Stratigraphy of TP02 north section (C. Gamble 06.03.2024).	No artefacts present

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Table A9.3: Test Pit (TP01) Coordinates (GDA 94, Zone 55)

TP01 Size (1 x 1 m)	Easting	Northing	S/W Corner (m)	N/W Corner (m)	N/E Corner (m)	S/E Corner (m)
South / West Corner	E 320651.32	N 5841824.8				
Surface			1.46	1.46	1.47	1.46
Base			1.59	1.58	1.57	1.58

Table A9.4: Test Pit (TP02) Coordinates (GDA 94, Zone 55)

TP02 Size (1 x 1 m)	Easting	Northing	S/W Corner (m)	N/W Corner (m)	N/E Corner (m)	S/E Corner (m)
South / West Corner	E 320633.38	N 5841829.3				
Surface			1.46	1.40	1.43	1.42
Base			1.52	1.59	1.51	1.49

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Table A9.5: Negative Mechanical Test Pit Excavated outside the Activity Area (GDA 94, Zone 55)

MTP Descriptions: Stratigraphy and Inclusions			
MTP02 *Context 1*: 00 to 70 mm— Light, yellowish grey, compacted, dry, fine, silty clay. No inclusions. *Context 2 (Base)*: 70 to 170 mm— Light, orangish grey, cemented, dry, fine, clay. Infrequent medium to large basalt nodules, infrequent small natural quartz nodules introduced. Deposit was hard to dig with excavator. *No artefacts present*	**MTP03** *Context 1*: 00 to 70 mm— brownish grey, compacted, dry, fine, silty clay. No inclusions. *Context 2 (Base)*: 70 to 120 mm—Light, orangish grey, cemented, dry, fine, clay. Infrequent medium to large basalt nodules, infrequent small natural quartz, 1x glass. Deposit was hard to dig with excavator. *No artefacts present*	**MTP04** *Context 1*: 00 to 70 mm— brownish grey, compacted, dry, fine, silty clay. No inclusions. *Context 2 (Base)*: 70 to 110 mm—Light, brownish grey, cemented, dry, fine, clay. Infrequent medium to large basalt nodules. Deposit was hard to dig with excavator. *No artefacts present*	**MTP05** *Context 1*: 00 to 70 mm— brownish grey, compacted, dry, fine, silty clay. No inclusions. *Context 2 (Base)*: 80 to 200 mm—Light, brownish grey, cemented, dry, fine, clay. No inclusions. Deposit was hard to dig with excavator. *No artefacts present*
MTP07 *Context 1*: 00 to 90 mm— Light greyish-brown , firm, dry, fine, silty clay. No inclusions. *Context 2 (Base)*: 70 to 140 mm— Light, greyish-brown compacted, dry clay. No inclusions. Deposit was hard to dig with excavator. *No artefacts present*			

Table A9.6: Mechanical Test Pit Coordinates (GDA 94, Zone 55)

Mechanical Test Pit Number	Easting	Northing	Depth (m)
MTP02	320580.6029	5841827.553	0.17
MTP03	320571.2834	5841772.683	0.12
MTP04	320472.1652	5841778.801	0.11
MTP05	320373.5077	5841787.548	0.20
MTP07	320653.6	5841793	

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Appendix 10: CHMP 10500 Complex Assessment Map (Athanasiadis and Tucker 2008)

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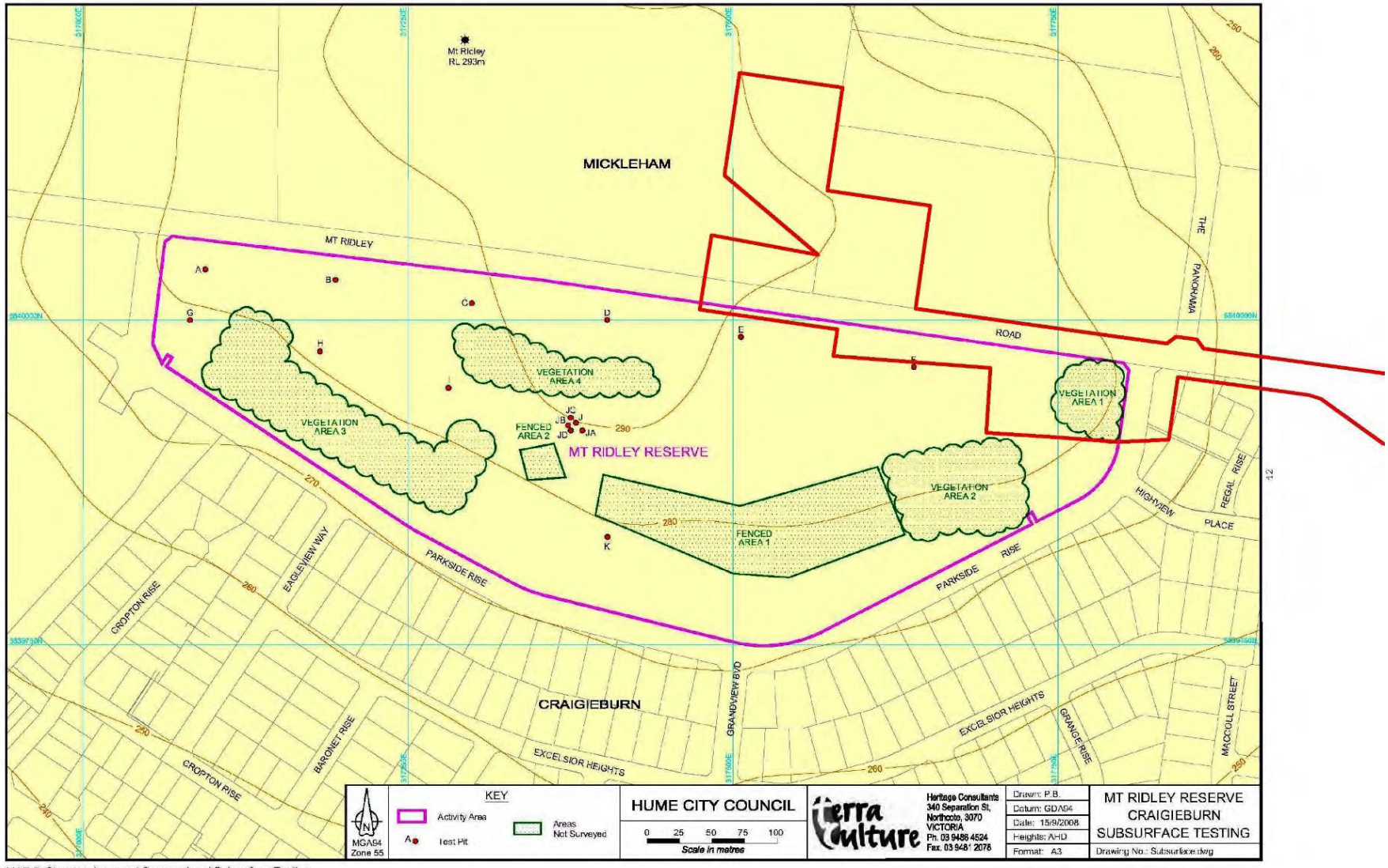
Figure A10.1: CHMP 19688 activity area overlaid on complex assessment results map from CHMP 10500 (Athanasiadis and Tucker 2008



MAP 3: Showing Areas not Surveyed and Subsurface Testing.

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Appendix 11: Standard Assessment and Complex Assessment Data, CHMP 12847 (Goldfarb and Hill 2014).

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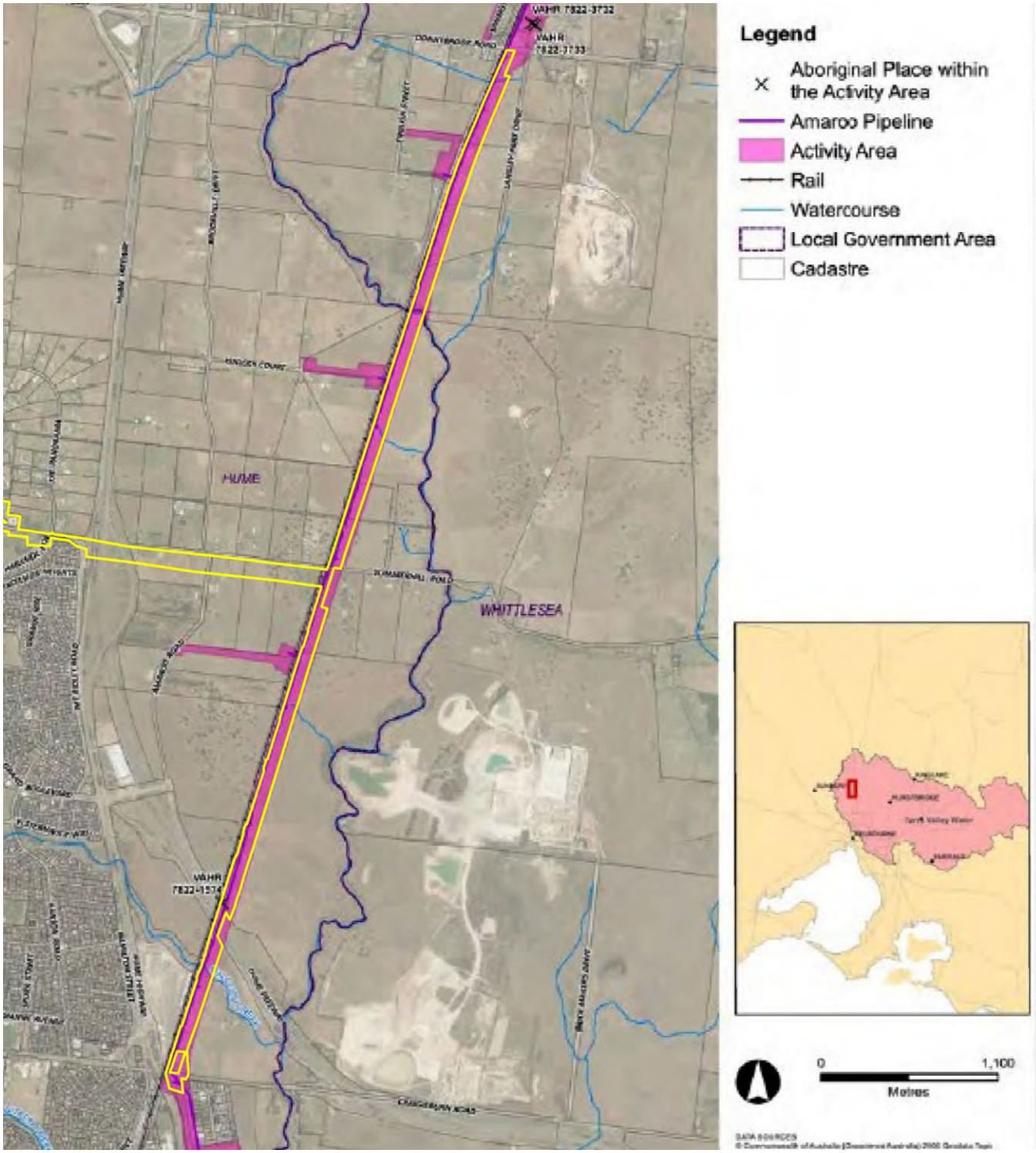

Figure A11.1 Overview map showing activity area of CHMP 19688 (yellow outline) in relation to the activity area of CHMP 12847 (pink)

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5. Standard assessment

For the purposes of s 53 (2) of the Act, a standard assessment must include a ground survey of all or part of the activity area to detect the presence of Aboriginal cultural heritage in or associated with the activity area.

5.1 Aims

The aims of the standard assessment were to:

- Identify and record any previously registered or unidentified Aboriginal Places within the activity area
- Identify any areas of PAS that may require sub-surface testing, which are predicted to occur on or near stony rises outcrops, or on the banks of Merri Creek or other significant waterways
- Inspect all indigenous mature trees for evidence of cultural scarring
- Undertake consultation with representatives of the WTLCCHC
- Document the extent of ground disturbance in the activity area (combination of the data from the desktop assessment and the field survey)

5.2 Timing and personnel

Table 5.1 : Personnel involved in the standard assessment

Person	Project role	Organisation	Fieldwork participation dates
Jeff Hill	CHA	Jacobs	9 December 2013, 22 July 2014
Amanda Goldfarb	Project Archaeologist	Jacobs	9 December 2013, 25 February 2014, 22 July 2014
Joseph Brooke	Project Archaeologist	Jacobs	25 February 2014
Trevor Downe	Field Representative	WTLCCHC	9 December 2013, 25 February 2014
Wade Garvey	Field Representative	WTLCCHC	9 December 2013
Naomi Zukanovic	Field Representative	WTLCCHC	9 December 2013
Gary Galwy	Field Representative	WTLCCHC	9 December 2013
Bobby Mullins	Field Representative	WTLCCHC	25 February 2014
Alex Kerr	Field Representative	WTLCCHC	22 July 2014

5.3 Archaeological survey methodology

In keeping with the requirements of s 53(2) of the Act, a systematic ground survey of the activity area was undertaken on 9 December 2013, 25 February 2014 and 22 July 2014 (Table 5.1).

The methodology adopted for the survey was adapted from Burke and Smith (2004: 73), with 16 transects walked throughout the pipeline corridor, in addition to a further eight transects walked over the access tracks. For the pipeline corridor, field workers initially walked one 50 m wide transect, spaced 8 m apart east to west along the proposed corridor, examining the ground surface in all areas. Once the end of each initial transect was reached, field workers then surveyed the second half of the activity area, walking in the opposite direction (north or south). Each field worker surveyed the ground surface up to four metres either side of them. After the fifth transect, however, it was apparent that the thick vegetation hampered site detection, and so the 50 m wide transects were reduced to 25 m in width. For the access tracks, field workers were spaced approximately two metres apart, due to the better ground surface visibility. The ground surface was inspected for topographic, soil colour and vegetation changes which might indicate the presence of mounds, artefact scatters, burials or other Aboriginal Places. Both areas of disturbance and PAS were recorded for spatial mapping. Mature indigenous trees were inspected for evidence of cultural scarring. Rock caves, rock shelters or cave entrances were present within the immediately adjacent to the activity area.

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5.3.1 Survey recording methods

All pertinent information relating to the environmental and archaeological context of the activity area including landscape features, topography, vegetation and soil types, ground surface visibility, ground disturbance and the likely presence of Aboriginal cultural heritage within the activity area were recorded during the survey. Landscape features and areas of ground disturbance were also photographed with a digital camera and mapped using a mobile Differential Global Positioning System (DGPS) Unit.

5.3.2 Mobile mapping

Mapping of features located during the survey was undertaken using a DGPS Unit (Juno 5D and a GeoExplorer XT 6000) using the Victorian Government standard GDA94/MGA55 for eastings and northings. The Juno enables spatial datasets collected in the field to be post-processed to sub-metre level accuracy which is the target level of OAAV accuracy for Aboriginal Places (OAAV 2013). The Global Positioning System co-ordinates require differential correction. The data was then transferred to the Jacobs spatial mapping team to collate data and to produce maps for the purposes of this CHMP.

5.3.3 Visibility, exposure and coverage

As shown in Table 5.2, ground surface visibility was extremely low across the activity area. Ground surface visibility was calculated by estimating the percentage of surface that is visible (taking into account factors which may have affected visibility such as vegetation, fill, gravel or leaf litter). Exposure was calculated as a percentage of the ground surface that is exposed by erosion or disturbance. The premise of recording these parameters is that an archaeological surface survey can 'only be representative of the visible rather than the existing archaeological record' (Burke and Smith 2004: 80). Effective coverage (Survey Coverage Area [m²] x Visibility x Exposure = Effective Coverage [m²]) was calculated for each survey transect.

Of the entire activity area, 71 per cent was surveyed during the standard assessment. The total effective survey coverage was low, at 11.01 per cent (Table 5.2). The majority of the activity area was covered with dense ground cover, which reduced overall ground surface visibility to 26.67 per cent. Areas which were visible exhibited a low degree of exposure, which was caused from the previous clearing of vegetation and erosion.

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Table 5.2 : Total effective survey coverage within activity area and land use disturbance

Transect	Distance (m)	Area (m^2)	Survey coverage (%)	Average visibility (%)	Average exposure (%)	Effective survey coverage (m^2)	Effective survey coverage (%)	Disturbance from past and current land use
1, 2	724	53,369	90	5	5	120	0.25	The activity area has undergone vegetation clearance, and is currently used as paddocks, rail reserve and includes the Donnybrook Springs Hotel and Donnybrook Station. The paddocks are currently used for grazing with a dam present.
3, 4	1,828	97,355	100	5	5	243	0.25	The activity area has undergone vegetation clearance, and is currently used as paddocks. Dams are also present as is an irrigation channel.
5, 6	1,612	76,594	50	5	5	96	0.125	The activity area has undergone vegetation clearance, and is currently used as paddocks. Dams are also present.
7, 8	3,334	148,740	50	5	5	186	0.125	The activity area has undergone vegetation clearance, and is currently used as paddocks.
9, 10	1,074	52,712	50	15	10	395	0.75	The activity area has undergone vegetation clearance, and is currently used as paddocks.
11, 12	1,584	81,452	100	15	15	1,833	2.25	This area has been cleared and is within road reserve. This section of the activity area has also undergone SGD, as the Merrifield temporary outfall sewer pipeline has previously been installed here.
13, 14	1,685	153,121	90	10	10	1,378	0.9	The area is mainly cleared with remnant native vegetation still intact. Area currently under pastoral grazing and divided into paddocks.
15, 16	971	92,908	90	80	20	13,379	14.4	The area is cleared of vegetation and has been recently burnt. Basalt quarrying on the north side of Malcom Creek is evident with at least 3 excavation pits present.
Springs Road Access Track	561	22,400	100	70	70	10,976	49	The activity area has undergone vegetation clearance, and is currently used as paddocks. Approximately 80 per cent of the area has recently been ploughed on the western side of Springs Road. A retention basin is also present on the eastern side of Springs Road.

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Transect	Distance (m)	Area (m^2)	Survey coverage (%)	Average visibility (%)	Average exposure (%)	Effective survey coverage (m^2)	Effective survey coverage (%)	Disturbance from past and current land use
Norman Road Access Track	621	32,968	80	100	80	21,099	64	The activity area has undergone vegetation clearance, and is currently used as paddocks. One hundred per cent of the area between English Street and the railway line has been recently ploughed. A dry stone wall was also noted near the railway line.
Kinloch Court Access Track	482	26,758	10	5	5	7	0.025	This area has been cleared and is within a paddock.
Amaroo Road Access Track	1,412	38,223	50	5	5	48	0.125	This area has been cleared and is within a paddock. An existing vehicle access track is present. Rubbish has also been dumped adjacent to the southern boundary of this area.
Kalkallo connection	175	25,375	80	30	50	3,045	12	Connection area has a large dam within it. The adjacent landscape has been modified to construct the walls of this dam.
Total	**16,063**	**901,975**	**72.31**	**26.92**	**21.92**	**52,805**	**11.09**	

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Table 5.3 : Areas of disturbance recorded throughout the activity area

Photo	Photo
 Figure 5.1 : View south at the end of Transect 1, overlooking the dam (Photograph by A Goldfarb, 9 December 2013)	 Figure 5.2 : View south-east to Donnybrook Springs Hotel, Transect 2 (Photograph by J Hill, 9 December 2013)
 Figure 5.3 : View north-east to Donnybrook Road over farmland, Transect 3 (Photograph by J Hill, 9 December 2013)	 Figure 5.4 : View south across the paddocks and railway reserve in Transect 8 (Photograph by A Goldfarb, 9 December 2013)

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Photo	Photo
 Figure 5.5 : View south of the Merrifield temporary outfall sewer pipeline, Transect 11 (Photograph by A Goldfarb, 9 December 2013)	 Figure 5.6 : View east of the rubbish debris on the boundary of Access Track 3, Transect 13 (Photograph by A Goldfarb, 9 December 2013)
 Figure 5.7 : View east of basalt quarry located on the north side of Malcolm creek, Transect 18 (Photograph by A Goldfarb, 25 February 2014)	 Figure 5.8 : One of the two piles of basalt within the paddock north of Donnybrook Road near the end of the alignment, indicating the paddocks have been cleared (Photograph by J Hill, 18 February 2014; view east)

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5.4 Constraints

The majority of the activity area has been subject to at least some degree of ground disturbance or very dense groundcover, which hindered visibility of the natural ground surface. Access during the 9 December 2013 survey was unavailable for one large property (PS518226), which accounted for 29 per cent of the entire activity area, two access tracks (Norman Road and Springs Road) and the land surrounding the Donnybrook Springs Hotel (PS449806). The standard assessment for PS518226 was completed on 25 February 2014, with the assessment completed for the Norman Road and Springs Road Access Tracks on 22 July 2014.

No further constraints existed for the standard assessment.

5.5 Results of the standard assessment

Two new Aboriginal Places (Donnybrook Road LDAD 3 [VAHR 7822-3732] and Donnybrook Road 5 [VAHR 7822-3750]) and 13 areas of PAS were identified during the survey of the activity area. The two Aboriginal Places were recorded within close proximity to each other (approximately 20 m apart) on a sloping rise. The rise culminated in two outcrops of basalt (part of the stony rises landform), approximately 80 m to the north. One Aboriginal Place was re-inspected (Craigieburn Bypass 6 [VAHR 7822-1754]) and additional cultural material was discovered at this location.

5.5.1 Transects 1 and 2

Transects 1 and 2 were situated on a sloping rise on north of Donnybrook Road that comprised farmland and the Melbourne-Sydney rail reserve. Transect 1 was walked in a northerly direction, with Transect 2 walked in a southerly direction. Two new Aboriginal Places, Donnybrook Road LDAD 3 (VAHR 7822-3732) and Donnybrook Road 5 (VAHR 7822-3750), and one area of PAS were identified during the survey (Figure 5.9). Outcroppings of basalt (stony rises) were visible in the northern half of the property (Figure 5.10). Further investigation of these stony rises in February 2014 when visibility was greatly improved, indicated that these were artificial. No indigenous mature vegetation was present due to previous and current land use practices. Land access was also unavailable surrounding the Donnybrook Springs Hotel, and this was visually inspected from the fence line. The activity area was found to have undergone previous disturbance as stated in Table 5.2.



Figure 5.9 : View south of PAS 1, located on the rise within Transect 1 and 2 (Photograph by A Goldfarb, 9 December 2013)



Figure 5.10 : View south-east of a stony rise outcrop within PAS 1, Transect 1 (Photograph by J Hill, 9 December 2013)

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5.5.2 Transects 3 and 4

Transects 3 and 4 were situated on a plain within agricultural land south of Donnybrook Road (Figure 5.11 and Figure 5.12). Transect 3 finished at Donnybrook Road, where the participants then turned around and walked in a southern direction (Transect 4). An irrigation channel was present throughout the middle of the two transects. No new Aboriginal Places or areas of PAS were identified during the survey. No indigenous mature vegetation or basalt outcroppings related to the stony rises landform were apparent. The activity area was found to have undergone previous disturbance as stated in Table 5.2.



Figure 5.11 : View north at the beginning of Transect 3, towards Donnybrook Road in the distance (Photograph by A Goldfarb, 9 December 2013)



Figure 5.12 : View north-east to Donnybrook Road over farmland, Transect 3 (Photograph by J Hill, 9 December 2013)

5.5.3 Transects 5 and 6

Transects 5 and 6 were situated on a plain within agricultural land approximately north of Merri Creek. Transect 5 was walked in a southern direction and finished at the bank of Merri Creek, which was quite steep. Transect 6 was walked in a northern direction (Figure 5.14). No new Aboriginal Places were recorded as part of the standard assessment; however, one area of PAS (PAS 2) was identified during the survey, on the bank of Merri Creek (Figure 5.13). One mature indigenous tree was present within the area of PAS, but it did not have any cultural scars. No basalt outcroppings related to the stony rises landform were apparent. The activity area was found to have undergone previous disturbance as stated in Table 5.2.



Figure 5.13 : View south of PAS 2, located on the northern bank of Merri Creek, end of Transect 5 and beginning of Transect 6 (Photograph by J Hill, 9 December 2013)



Figure 5.14 : View north of Transect 6 (Photograph by A Goldfarb, 9 December 2013)

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5.5.4 Transects 7 and 8

Transects 7 and 8 were comprised of undulating land located between Summerhill Road and Merri Creek. Transect 7 was walked in a northern direction, with Transect 8 being walked in a southern direction. Basalt floaters were present within this section, although the activity area did not exhibit the large stony rises outcrops as in Transects 1 and 2. An unnamed creek was also present within this property. No new Aboriginal Places were recorded as part of the standard assessment; however, three areas of PAS were identified during the survey: one on the bank of Merri Creek (PAS 3) (Figure 5.15), the second surrounding VAHR site Summerhill Rd Rail Res. 1 (VAHR 7822-1177) (PAS 4) and the last surrounding the unnamed creek (PAS 5) (Figure 5.16). Summerhill Rd Rail Res. 1 (VAHR 7822-1177) was located outside the activity area within the adjacent rail reserve. No mature indigenous trees or large basalt outcroppings related to the stony rises landform were apparent. The activity area was found to have undergone previous disturbance as stated in Table 5.2.



Figure 5.15 : View north of PAS 3, located on the southern bank of Merri Creek, end of Transect 7 (Photograph by A Goldfarb, 9 December 2013)



Figure 5.16 : View south of small rise located to the south of an unnamed creek in PAS 5, within Transect 8 (Photograph by J Hill, 9 December 2013)

5.5.5 Transects 9 and 10

Transects 9 and 10 were located south from Summerhill Road to the boundary of an adjacent property (approximately 1.1 km in length). Transect 9 was walked in a southern direction (Figure 5.17), with Transect 10 walked in a northern direction (Figure 5.18). The landscape was flat, with some mature Red Gums, although none of the trees were found to have cultural scars apparent. No Aboriginal Places or areas of PAS were identified as a result of the standard assessment. No basalt outcroppings related to the stony rises landform were present. The activity area was found to have undergone previous disturbance as stated in Table 5.2.



Figure 5.17 : View south at Transect 9 (Photograph by A Goldfarb, 9 December 2013)



Figure 5.18 : View north at the end of Transect 9 and the start of Transect 10 (Photograph by A Goldfarb, 9 December 2013)

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5.5.6 Transects 11 and 12

Transects 11 and 12 were located on land situated between the Craigieburn-Hume Exit Ramp and the Hume Highway on land managed by VicRoads. Transect 11 was walked in a southern direction (Figure 5.19), with Transect 12 walked in a northern direction. This area is within road reserve and has undergone SGD, caused by the installation of the Merrifield temporary outfall sewer pipeline. Artificial fill was present. No basalt outcroppings related to the stony rises landform were apparent. No Aboriginal Places or areas of PAS were identified as a result of the standard assessment. The activity area was found to have undergone previous disturbance as stated in Table 5.2 and Transects 11 and 12 terminated at the boundary of the Craigieburn Sewage Treatment Plant. In consultation with the field representatives a survey inside the treatment plant was not undertaken as the treatment plant is functional and SGD was observed to have occurred within this area from the boundary fence (Figure 5.20).



Figure 5.19 : View south of the Merrifield temporary outfall sewer pipeline, start of Transect 11 (Photograph by A Goldfarb, 9 December 2013)



Figure 5.20 : View south at the end of Transect 11. The Craigieburn Sewage Treatment Plant is located behind the fence (Photograph by J Hill, 9 December 2013)

5.5.7 Transects 13 and 14

Transects 13 and 14 were located on agricultural land immediately north of the Hume Freeway. This assessment was undertaken on 25 February 2014 concurrently with the complex assessment that was then underway on other properties. During the standard assessment it was found that the vast majority of the property had not undergone SGD and that the primary activity undertaken along the majority of this property north of the Hume Freeway was pastoral grazing. The most notable disturbance was within close proximity to the Hume Freeway road reserve. Re-inspection of Craigieburn Bypass 6 (VAHR 7822-1574) was undertaken at this location and a further artefact was found during this re-inspection (Figure 5.23). The artefact was chunky, white with yellow inclusions and negative flake scars (Figure 5.24). The raw material type of the artefact has been debated; porcellanite or chert were the original suggestions, however, a senior geologist with Jacobs (Andrew Shugg) identified the material as botryoidal magnesite, common in the soils and weathering profiles around Heathcote, on the Gabbros and also in some of the soils on the Newer Basalts, at Tullamarine. The material fractures easily and is brittle, so farmers ploughing fields or excavating quarries can result in broken or fragmented examples with conchoidal fractures.

Areas of PAS were identified around Summerhill Rd Rail Res.2 (VAHR 7822-1178) (PAS 8, western extent (Figure 5.21)), Craigieburn Railway Reserve (VAHR 7822-1176) (PAS 10) and Craigieburn Bypass 6 (VAHR 7822-1574) (PAS 11). An area of PAS (PAS 9) was also identified upon the top of a rise approximately 400 m west of Merri Creek (Figure 5.22). The activity area was found to have undergone previous disturbance as stated in Table 5.2.

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Figure 5.21 : View south across area of PAS 8 start of Transect 13 (Photograph by A Goldfarb, 25 February 2014)



Figure 5.22 : View east across a stony rise recorded as PAS 9 within Transect 13 (Photograph by A Goldfarb, 25 February 2014)



Figure 5.23 : Area where artefact belonging to Craigieburn Bypass 6 (VAHR 7822-1574) was located in PAS 11 end of Transect 13 (Photograph by A Goldfarb, 25 February 2014)



Figure 5.24 : Field photograph of the botryoidal magnesite artefact found at Craigieburn Bypass 6 (VAHR 7822-1574) (Photograph by A Goldfarb, 25 February 2014)

5.5.8 Transects 15 and 16

Transects 15 and 16 were located on cleared land (most likely agricultural, but recently burnt) on the property between the Hume Freeway and Craigieburn Road East (Figure 5.29). These transects included a crossing of Malcolm Creek adjacent to the Craigieburn Stabling Yards. Visibility was excellent on the southern side of Malcolm Creek due to the prior burning (Figure 5.25 and Figure 5.26). Ground disturbance in this area appeared to be minimal and largely occurred as vegetation clearance or in close association with the rail reserve. The northern side of Malcolm Creek between the creek and the Hume Freeway (approximately 200 m) had undergone SGD in most parts from basalt quarrying (Figure 5.27 and Figure 5.28). Large tracts of the landscape were excavated and spoil deposited as low mounds. Previous assessment for the Craigieburn Stabling Yards determined that *in situ* Aboriginal cultural material could still be present even within areas that appear to have been significantly disturbed; therefore the CHS areas around Malcolm Creek were identified as areas of PAS (12 and 13) (Figure 5.30). The activity area was found to have undergone previous disturbance as stated in Table 5.2.

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Figure 5.25 : View south, steep southern bank of Malcolm Creek (Photograph by A Goldfarb, 25 February 2014)



Figure 5.26 : View north of burnt out area of the activity area on the south side of Malcolm Creek, Transect 17 and 18 (Photograph by A Goldfarb, 25 February 2014)



Figure 5.27 : North side of Malcolm Creek, approximately 50 m north of basalt quarry (Photograph by A Goldfarb, 25 February 2014)



Figure 5.28 : Basalt quarry on the north side of Malcolm Creek, Transect 16 (Photograph by A Goldfarb, 25 February 2014)

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Figure 5.29 : Start of Transect 15 looking south towards Craigieburn Road East in the distance (Photograph by A Goldfarb, 25 February 2014)



Figure 5.30 : View north across the area of CHS associated with the south side of Malcolm Creek, Transect 16 (Photograph by A Goldfarb, 25 February 2014)

5.5.9 Springs Road Access Track and Kalkallo Main Sewer Connection

As stated in the activity description, the northern end of the AMS will connect into the LMS. In addition the Kalkallo Main Sewer will connect into the AMS at this location also. The parcel of land identified for this activity is located on the western side of the Melbourne – Sydney railway line within a paddock in which a large dam has been constructed and also comprising a continuation of the section of land within the Springs Road Access Track alignment. The Springs Road Access Track was walked in six transects, achieving 100 per cent survey coverage. The access track was on a plain that rose slightly from Merri Creek (located approximately 270 m to the north). The first transect was walked in an eastern direction, with the area around the dam also walked (Figure 5.31 and Figure 5.32). The water level in the dam was low and a thorough inspection of the dam walls and exposed ground surface was made. The area had been modified with clay imported to construct the dam walls. Outside the dam area itself the landscape was flat, unassuming paddock.

An additional four transects were walked along the agricultural land to the west of Springs Road, with two transects heading north and two heading south. The western end of the connection area was located within ploughed paddock a drainage line was noted through this area connecting the dam with Merri Creek (approximately 500 west; Figure 5.34). Approximately 80 per cent of the area to the west of Springs Road has been ploughed and sown with crops (Figure 5.33). No Aboriginal Places or areas of PAS were identified as a result of the standard assessment. The majority of the activity area was found to have undergone previous disturbance through pastoral activities, land clearing and surface levelling.

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Figure 5.31 : View north of Springs Road Access Track on the eastern side of Springs Road (Photograph by A Goldfarb, 22 July 2014)



Figure 5.32 : View south-west of the dam to the east of Springs Road (Photograph by A Goldfarb, 22 July 2014)



Figure 5.33 : View north of Springs Road Access Track on the western side of Springs Road (Photograph by A Goldfarb, 22 July 2014)



Figure 5.34 : Drainage line cutting through the Springs Road Access Track and Kalkallo Main Sewer Connection area Road (view west, Photograph by A Goldfarb, 22 July 2014)

5.5.10 Norman Road Access Track

The Norman Road Access Track is located on the corner of Norman Road and English Street, Donnybrook. The area was walked in two transects, with 100 per cent survey coverage achieved. The first transect was walked north from Norman Road before turning east towards English Street (Figure 5.35). The second transect was walked from English Street to the edge of the access track, then south towards Norman Road (Figure 5.37). One paddock had been recently ploughed (located between English Street and the railway reserve) (Figure 5.36), which provided excellent visibility. A dry stone wall was also noted near the railway line, where the access track turns south (Figure 5.38). No Aboriginal Places or areas of PAS were identified as a result of the standard assessment. The activity area was found to have undergone previous disturbance as stated in Table 5.2.

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Figure 5.35 : View west of Norman Road, start of first transect (Photograph by A Goldfarb, 22 July 2014)



Figure 5.36 : View west of first transect, ploughed paddock (Photograph by A Goldfarb, 22 July 2014)



Figure 5.37 : View west of second transect (Photograph by A Goldfarb, 22 July 2014)



Figure 5.38 : View south of second transect, drystone wall (Photograph by A Goldfarb, 22 July 2014)

5.5.11 Kinloch Court access track

Kinloch Court Access Track was located on a property west of the alignment between Kinloch Court and the railway line (Figure 5.39). Field representatives from WTLCCHC determined that the area did not appear culturally sensitive and therefore did not require standard assessment. However a survey of the area was undertaken and Aboriginal Places or areas of PAS were identified as a result of the standard assessment. The activity area was found to have undergone previous disturbance through land clearance, pastoral activities and surface levelling.

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Figure 5.39 : View north-east across Kinloch Court Access Track (Photograph by A Goldfarb, 9 December 2013)



Figure 5.40 : View north-east across Kinloch Court Access Track showing high vegetation cover (Photograph by A Goldfarb, 9 December 2013)

5.5.12 Amaroo Road Access Track

Amaroo Road Access Track was walked in two transects, with 100 per cent survey coverage achieved. The land to the immediate south of the activity area contained a substantial degree of previous ground disturbance associated with an existing vehicle track containing quartz and shale gravel, and a refuse dumping ground (Figure 5.41). The refuse area was located on a rise, to the south of a stony rises outcrop (Figure 5.42). No Aboriginal Places were identified as a result of the standard assessment. Two areas of PAS were identified; PAS 6 near Summerhill Rd Rail Res.2 (VAHR 7822-1178) (where the access track abuts the rail reserve) and PAS 7, surrounding the stony rise outcrop in the middle of the access track. The activity area was found to have undergone previous disturbance as stated in Table 5.2.



Figure 5.41 : View east across Amaroo Road Access Track, start of first transect (Photograph by A Goldfarb, 9 December 2013)



Figure 5.42 : View south of the stony rise outcrop within Amaroo Road Access Track (Photograph by A Goldfarb, 9 December 2013)

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5.6 Identified areas of PAS

Thirteen areas of PAS were identified during the standard assessment. Details of these areas of PAS are provided in Table 5.4 and Figure 5.43 to Figure 5.47. The areas of PAS require further assessment through sub-surface testing in order to determine if Aboriginal cultural heritage material is present within the activity area.

Table 5.4 : Areas of PAS identified during the standard assessment

PAS number	Transect location	Length of PAS area (m)	Type of PAS area	Aboriginal Places
1	1, 2	205	Low rise, stony rise, within 50 m of Aboriginal Places	Donnybrook Road LDAD 3 (VAHR 7822-3732), Donnybrook Road 5 (VAHR 7822-3750)
2	5, 6	150	Area of CHS on the north side of Merri Creek located on a low rise	Nil
3	7, 8	280	Area of CHS on the south side of Merri Creek located on a low rise. Within 50 m of Aboriginal Place	Jackhammer 1 (VAHR 7822-0722)*
4	7, 8	155	Area of CHS associated with an Aboriginal Place	Summerhill Rd Rail Res. 1 (VAHR 7822-1177)*
5	7, 8	160	Low rise adjacent to a minor water way	Nil
6	Amaroo Road Access Track	100	Area of CHS associated with an Aboriginal Place	Summerhill Rd Rail Res. 2 (VAHR 7822-1178)*
7	Amaroo Road Access Track	80	Low stony rise	Nil
8	13, 14	120	Area of CHS associated with an Aboriginal Place	Summerhill Rd Rail Res. 2 (VAHR 7822-1178)*
9	13, 14	150	Low stony rise	Nil
10	13, 14	200	Area of CHS associated with an Aboriginal Place	Craigieburn Railway Reserve (VAHR 7822-1176)*
11	13, 14	205	Area of CHS associated with an Aboriginal Place	Craigieburn Bypass 6 (VAHR 7822-1574)
12	15, 16	130	Area of CHS on the north side of Malcolm Creek	Nil
13	15, 16	230	Area of CHS on the south side of Malcolm Creek	Nil

* Primary grid co-ordinate outside of the activity area

5.7 Conclusions from the standard assessment

During the standard assessment, 72 per cent of the activity area was surveyed, with a total overall effective survey coverage of 11 per cent (Table 5.2). The activity area was subject to dense vegetation cover, which hampered the detection of artefact scatters, although it did not affect the detection of more obtrusive site types, such as scarred trees. Two Aboriginal Places were recorded during the standard assessment, comprising an isolated stone artefact (Donnybrook Road LDAD 3 [VAHR 7822-3732]) and two silcrete flakes (Donnybrook Road 5 [VAHR 7822-3750]). An additional artefact was also recorded during the reinspection of a previously recorded Aboriginal Place, Craigieburn Bypass 6 (VAHR 7822-1574). Thirteen areas of PAS were also recorded as a result of the field assessment. These areas of PAS were recorded around stony rise outcrops, or within close proximity to Aboriginal Places or watercourses, which were considered to be archaeologically sensitive as described within the predictive model.

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Therefore, in accordance with r 60 of the Regulations, a complex assessment is recommended for the identified areas of PAS:

- Aboriginal cultural heritage is, or is likely to be present in the activity area, and
- It is not possible to identify the extent, nature and significance of the Aboriginal cultural heritage in the activity area unless a complex assessment is undertaken

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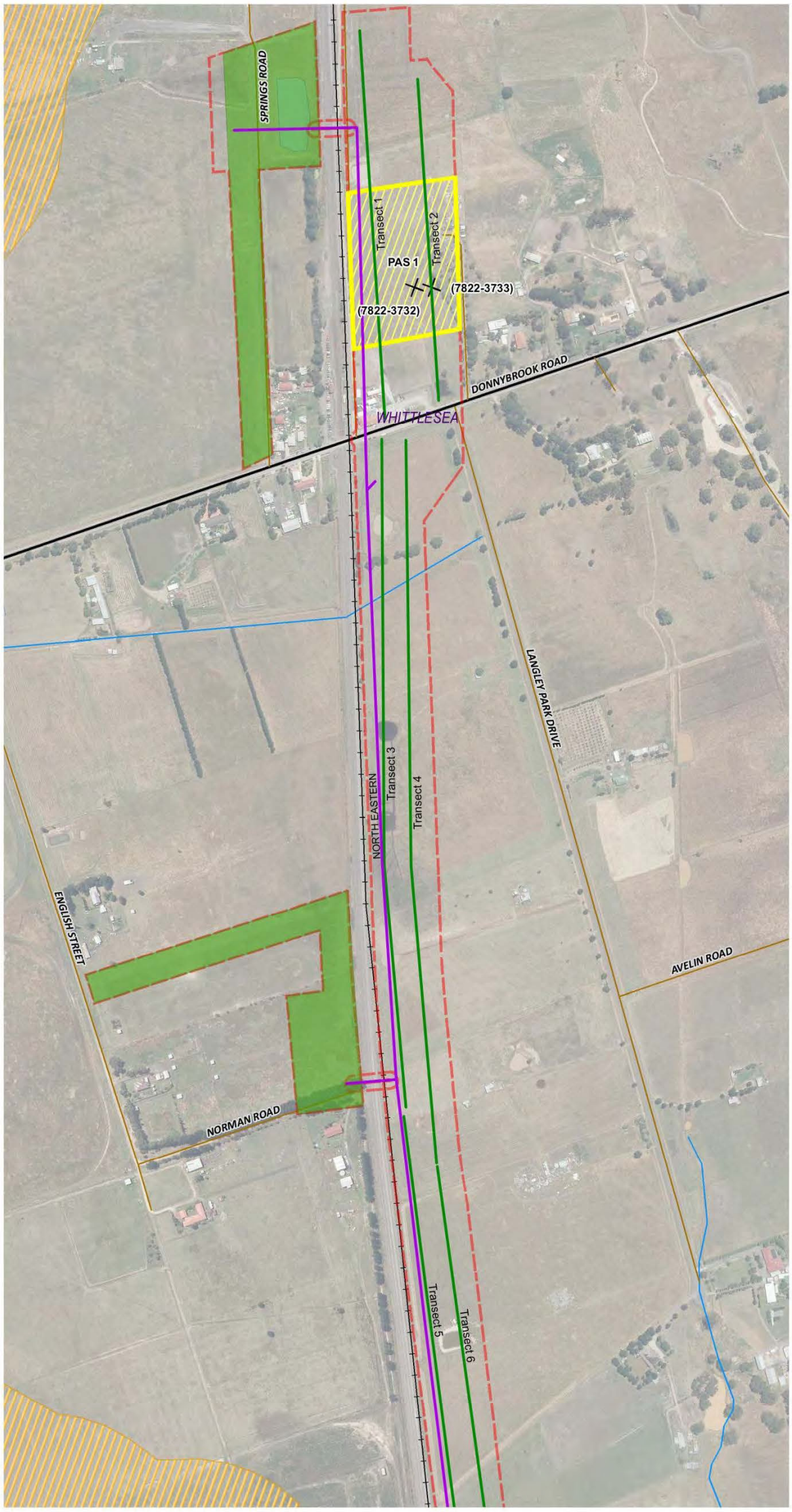


Cultural Heritage Standard Assessment Results

Map 1 of 5

Legend

- New Aboriginal Place (Standard Assessment)
- Amaroo Pipeline
- Survey Transects
- Access Track Surveyed Area
- Areas of Potential Archaeological Sensitivity
- Activity Area
- Cultural Heritage Sensitivity (OAAV)

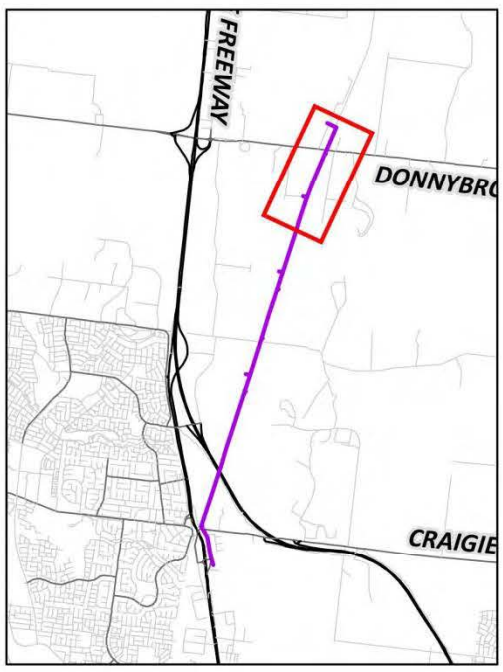
Registered Aboriginal Places

Type

- Artefact Scatter
- Earth Feature
- Low Density Artefact Distribution
- Object Collection
- Scarred Tree

Road

- Major Road
- Minor Road
- Rail
- Local Government Area
- Watercourse
- Water area



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[GDA 94 MGA Zone 55]

Amaroo Main Sewer Design Project | VW09000.S100

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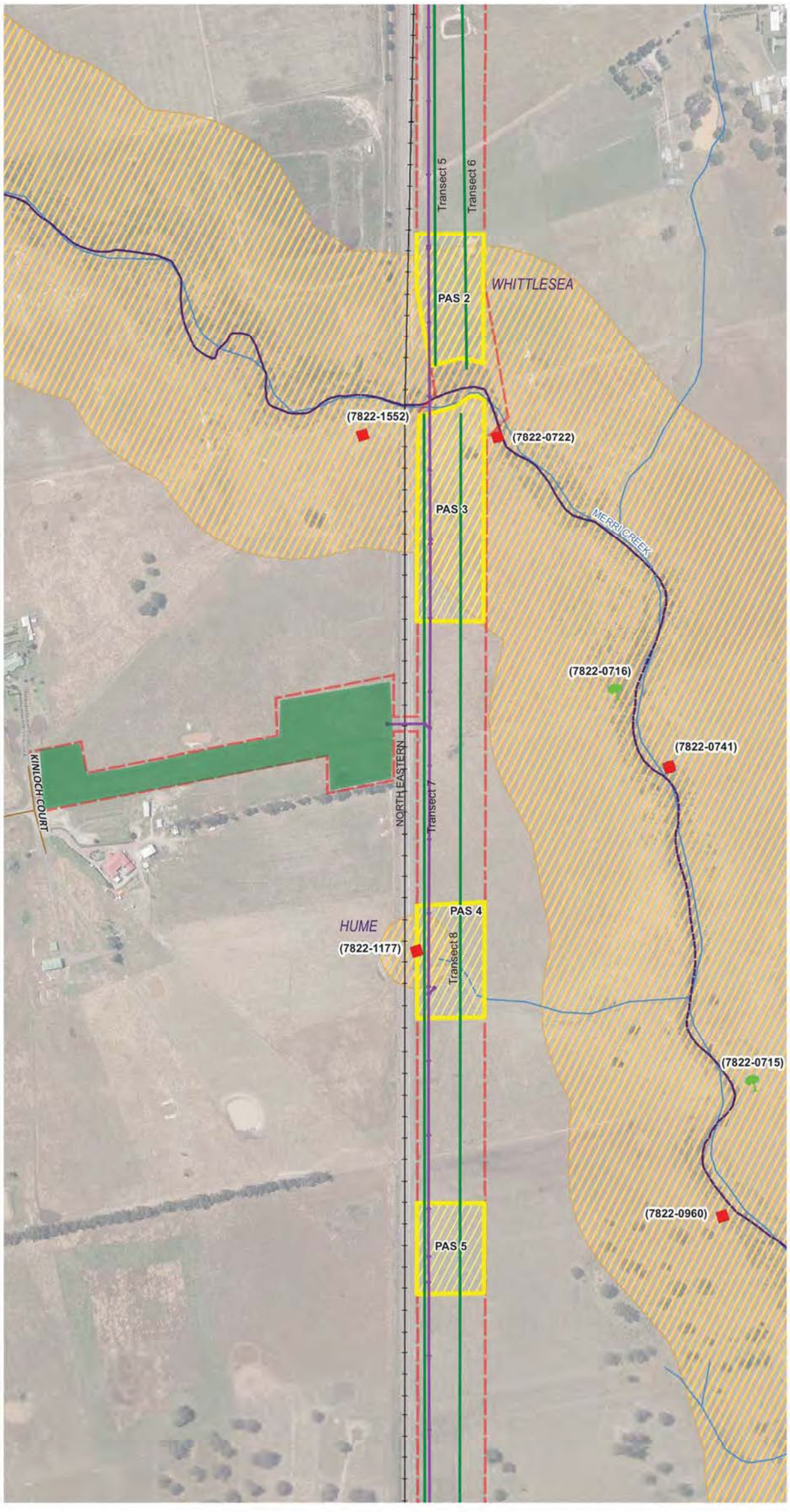
Figure 5.43 : Map 1 - Areas surveyed during the standard assessment including Aboriginal Places and PAS areas recorded



Cultural Heritage Standard Assessment Results

Map 2 of 5

Legend

- New Aboriginal Place (Standard Assessment)
- Amaroo Pipeline
- Survey Transects
- Access Track Surveyed Area
- Areas of Potential Archaeological Sensitivity
- Activity Area
- Cultural Heritage Sensitivity (OAAV)

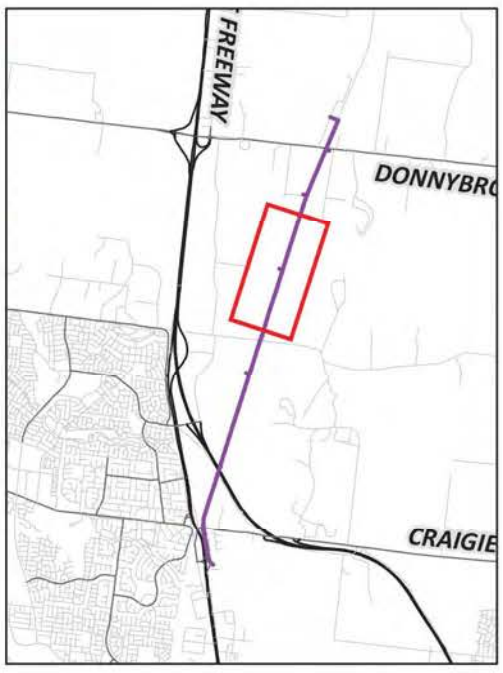
Registered Aboriginal Places

Type

- Artefact Scatter
- Earth Feature
- Low Density Artefact Distribution
- Object Collection
- Scarred Tree

Road

- Major Road
- Minor Road
- Rail
- Local Government Area
- Watercourse
- Water area



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Amaroo Main Sewer Design Project | VW09000.S100

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Figure 5.4: Map 2 - Areas surveyed during the standard assessment including Aboriginal Places and PAS areas recorded

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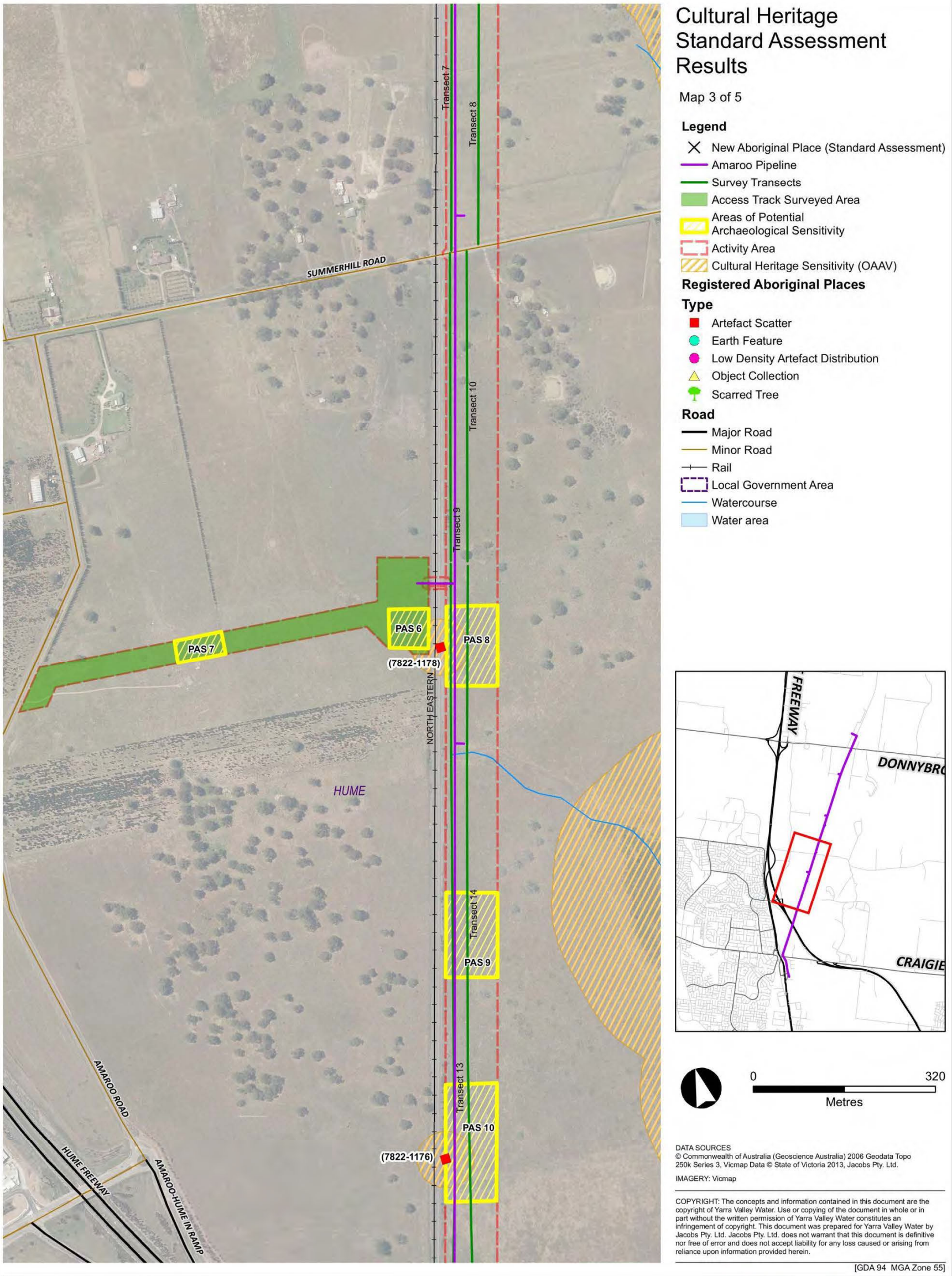

Figure 5.45 : Map 3 - Areas surveyed during the standard assessment including access track 3 and PAS areas recorded

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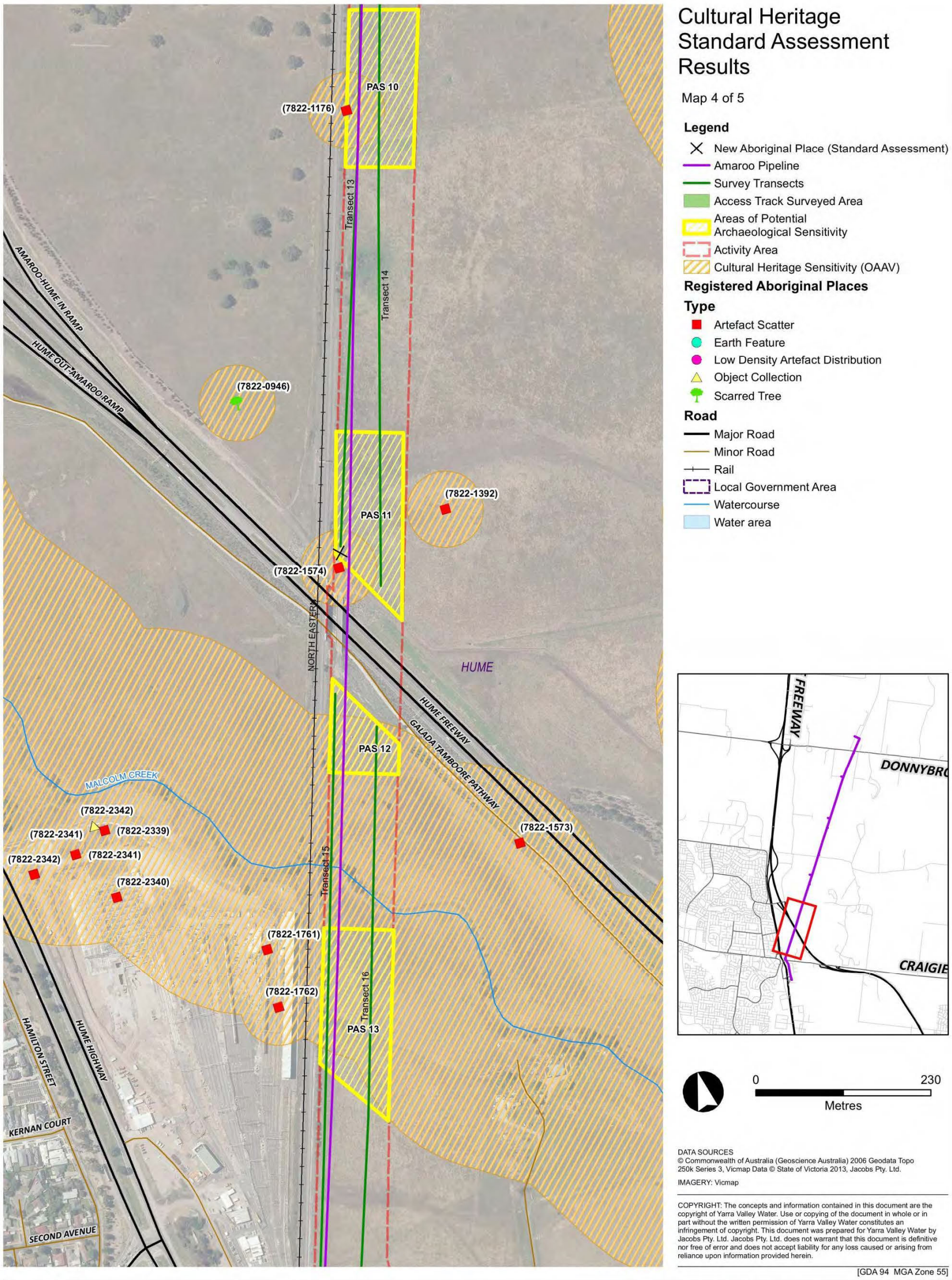

Figure 5.46: Map 4 - Areas surveyed during the standard assessment including Aboriginal Place re-inspected and PAS areas recorded

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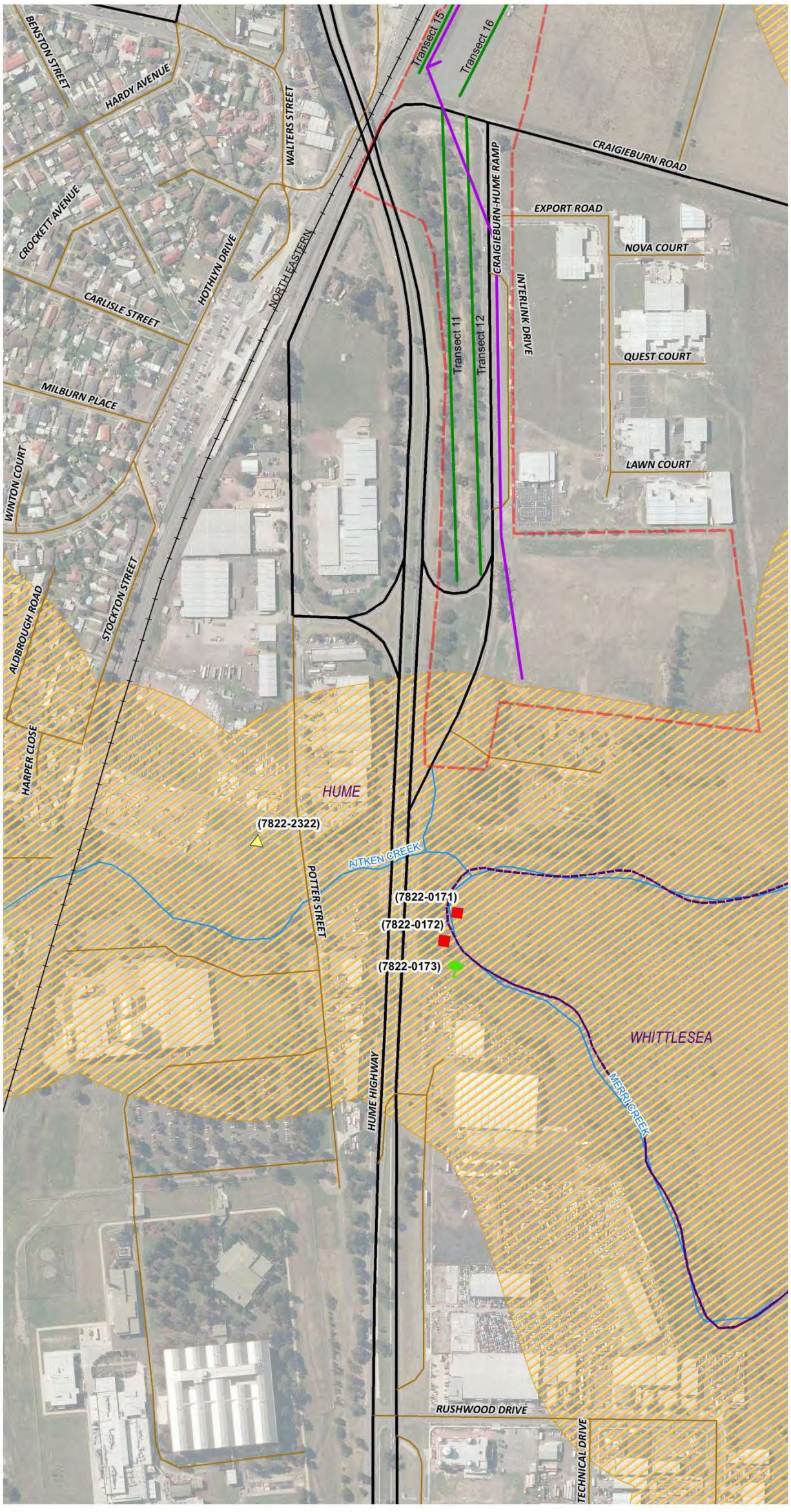


Cultural Heritage Standard Assessment Results

Map 5 of 5

Legend

- New Aboriginal Place (Standard Assessment)
- Amaroo Pipeline
- Survey Transects
- Access Track Surveyed Area
- Areas of Potential Archaeological Sensitivity
- Activity Area
- Cultural Heritage Sensitivity (OAAV)

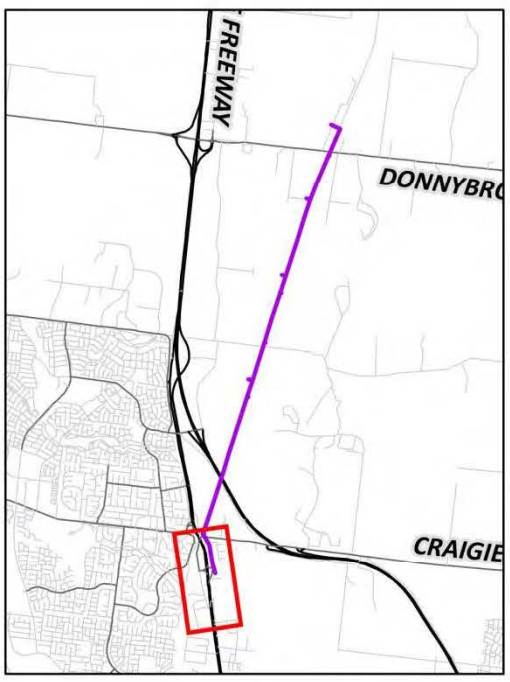
Registered Aboriginal Places

Type

- Artefact Scatter
- Earth Feature
- Low Density Artefact Distribution
- Object Collection
- Scarred Tree

Road

- Major Road
- Minor Road
- Rail
- Local Government Area
- Watercourse
- Water area



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Amaroo Main Sewer Design Project | VW09000.S100

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Figure 5.47 : Map 5 - Areas surveyed during the standard assessment including Aboriginal Places and PAS areas recorded

6. Complex assessment

For the purposes of s 53(2) of the Act, a complex assessment of an activity area is an assessment involving the disturbance of all or part of the activity area or an excavation of all or part of the activity area to uncover or discover Aboriginal cultural heritage. In accordance with r 61(4) of the Regulations, the stratigraphy and general sub-surface nature of the activity area was established by controlled hand excavation. The archaeological excavations were supervised by Jeff Hill (CHA, Jacobs) who has a Bachelor of Archaeology (Honours) and cultural heritage management experience (r 61[3] of the Regulations).

6.1 Aims

Through the standard assessment and consultation, it was determined that sub-surface testing would be limited to PAS locations. The aims of the complex assessment were to investigate sub-surface conditions in order to:

- Establish the presence of any sub-surface archaeological deposits
- Determine the extent of Aboriginal Places located within the activity area
- Assess the presence of archaeological material in the different landforms found across the activity area

6.1.1 Mobile mapping

Mapping of features located during the survey was undertaken using a DGPS Unit (Trimble® GeoXH™ GeoExplorer®) using the Victorian Government standard GDA94/MGA55 for eastings and northings. The Trimble enables spatial datasets collected in the field to be post-processed to sub-metre level accuracy which is the target level of OAAV accuracy for Aboriginal Places (OAAV 2013). The Global Positioning System co-ordinates require differential correction. The data was then transferred to the Jacobs spatial mapping team to collate data and to produce maps for the purposes of this CHMP.

6.2 Timing and personnel

The sub-surface investigation for the complex assessment was undertaken from 18 – 28 February 2014. Excavations were undertaken by Jacobs archaeologists in conjunction with field representatives from WTLCCHC (Table 6.1).

Table 6.1 : Personnel involved in the complex assessment

Person	Project role	Organisation	Fieldwork participation dates
Jeff Hill	CHA	Jacobs	18-21, 26-28 February 2014
Amanda Goldfarb	Project Archaeologist	Jacobs	18-20, 24, 25 February 2014
Joseph Brooke	Project Archaeologist	Jacobs	18-21, 24, 25 February 2014
Rani Attwood	Project Archaeologist	Jacobs	18-20, 24, 25 February 2014
Alistair Carr	Project Archaeologist	Jacobs	20, 21, 24- 28 February 2014
Erica Weston	Project Archaeologist	Jacobs	27, 28 February 2014
Rebecca Andrews	Project Archaeologist	Jacobs	28 February 2014
Naomi Zukanovic	Field representative	WTLCCHC	18-21, 24, 26-28 February 2014
Trevor Downe	Field representative	WTLCCHC	24, 26 February 2014
Bobby Mullins	Field representative	WTLCCHC	26-27 February 2014
Robert Jones	Field representative	WTLCCHC	18-21, 24 February 2014
Ron Lynn	Field representative	WTLCCHC	21 February 2014
Jacqui Wandin	Field representative	WTLCCHC	18-19 February 2014

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Person	Project role	Organisation	Fieldwork participation dates
Shane Nicholson	Field representative	WTLCCHC	24, 25, 27, 28 February 2014
Perry Wandin	Field representative	WTLCCHC	25 February 2014
Craig Terrick	Field representative	WTLCCHC	28 February 2014
Ann-Maree Chandler	Field representative	WTLCCHC	20, 21, 27, 28 February 2014

6.3 Archaeological excavation strategy

The excavation strategy focussed on the planned pipeline alignment as well as the area 10 m either side of the alignment. Despite the activity area's 90 m width, the pipeline alignment was relatively fixed as shown in Figure 2.1. Construction and all ground disturbances would be limited to the 20 m corridor that was investigated. In the event that Aboriginal cultural material was located within that 20 m testing corridor, then further testing was to occur radially in order to assess the extent of the Aboriginal cultural material. In some cases where cultural material was dense, this may include testing the entire 90 m width of the activity area.

The areas of PAS recorded during the standard assessment were the targeted areas for excavations as these were the documented areas where Aboriginal cultural material had the potential to occur. The areas of PAS (as noted in Table 5.4) were established as being within designated areas of CHS (eg Merri Creek and Malcolm Creek or within 50 m of registered Aboriginal Places) or on landforms with potential for sub-surface deposits (stony rises, low rises). In addition, two control areas were investigated in order to establish if Aboriginal cultural material occurred outside of the designated areas of PAS.

The pipeline will be bored under Merri Creek from a distance of approximately 200 m from either bank. As such, testing was not undertaken all the way to the banks of Merri Creek. Excavation was undertaken in a conservative manner, with testing ceasing at approximately 150 m from the southern bank (with one Test Pit (TP) excavated 25 m from the bank) and 120 m from the northern bank.

6.3.1 Excavation methodology

Hand excavation was employed during the sub-surface testing. The methodology consisted of excavating 1 m x 1 m Test Pits (TP) to determine the stratigraphy of the soil at the major waterway crossings and at the locations where surface artefacts had been recorded during the standard assessment.

Shovel Test Pits (STP) measuring 500 mm x 500 mm were excavated one metre radially direction from a TP if Aboriginal cultural material was discovered and continued in this fashion in order to determine the extent of the Place.

The majority of the testing was undertaken in transects using shovel probes (SP) which averaged 300 mm x 300 mm in dimension. These transects ran the length of the PAS areas with the SPs spaced five metres apart along the central alignment and 10 m apart on the transects on either side of the central alignment.

Only in the TPs and the STPs were all soils able to be removed using horizontal control in order to determine the depth at which any cultural material was discovered. If sub-surface cultural material was discovered within a SP, then a STP or a TP would be excavated in order to establish any depth changes in the soil deposit and stratigraphy. All soil deposits were sieved using five millimetre sieves. Changes in the soil deposit, stratigraphy and any unusual features were recorded by the use of context sheets related to photographic records. All SPs, STPs and TPs were re-instated following completion of excavation and recording.

6.4 Constraints

Due to the size of the activity area, assessing the entirety of the activity area was not possible, nor practicable. Therefore the testing strategy outlined in Section 6.3 was undertaken to ensure adequate sampling of areas with the greatest potential to contain Aboriginal cultural material.

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In some test excavation units, basalt floaters prematurely hindered excavation prior to reaching sterile clay deposits.

6.5 Results of the complex assessment

During the complex assessment a total of 566 test excavation units were excavated within the activity area. This comprised of 11 TPs, five STPs and 549 SPs. Table 6.2 summarises the excavation results with detailed descriptions of these results in Appendix G. Figure 6.19 to Figure 6.34 illustrates the location of the test excavation units. No new Aboriginal Places were recorded as a result of the sub-surface testing; however, it was established that Donnybrook Road 5 (VAHR 7822-3750) did have a sub-surface context. An additional 18 silcrete flakes, tools and cores were found within the sediments associated with this Place. However, this area had been previously disturbed and all 18 additional artefacts were found in the soil heap that had been deposited by a backhoe scrape. No artefacts were found within the soil adjacent to where the scrape had been made.

Evidence of SGD was found at the southern end of the alignment where a TP was excavated in the road reserve (TP 10) and again at the northern end of the alignment with European materials being present in the TPs excavated adjacent to Donnybrook Road LDAD 3 (VAHR 7822-3732) and Donnybrook Road 5 (VAHR 7822-3750). Across the length of the activity area the soils were found to be quite shallow, with 200 mm depth being slightly above average as the silty clay topsoil graded into a clay base usually before it reached this depth.

As no cultural material was recorded within the PAS areas on either side of Merri Creek, one 1 m x 1m excavation unit was excavated within 25 m of the southern bank of Merri Creek, in order to see if these results were due to the distance from the creek. No cultural material was discovered within this TP (TP 7).

Table 6.2 : Summary of excavation results

PAS area	Transect number	Shovel probe number (300 mm x 300 mm)	STP number (500 mm x 500 mm)	Test pit number (1 m x 1 m)	Aboriginal Places recorded with a sub-surface context
1	1,2,3	39	5	4	Donnybrook Road 5 (VAHR 7822-3750)
Control Area 1	4	41	-	-	Nil
2	5, 6, 7	26	-	2	Nil
3	11, 12, 13	41	-	1	Nil
4	14, 15, 16	49	-	1	Nil
5	8, 9, 10	45	-	-	Nil
6	30, 31	14	-	-	Nil
7	29	10	-	-	Nil
8	17, 18, 19	38	-	-	Nil
9	20, 21, 22	39	-	-	Nil
10	23, 24, 25	57	-	-	Nil
11	26, 27, 28	47	-	-	Nil
12	37, 38, 39	38	-	1	Nil
13	32, 33, 34a, 34b, 35, 36	65	-	1	Nil
Control Area 2	-	-	-	1	Nil
Total	40	549	5	11	

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6.5.1 Establishing stratigraphy

6.5.1.1 TPs (1 x 1 m)

The stratigraphic profile of the activity area was established through the excavation of 11 TPs. The following descriptions record the stratigraphic profile of the soils within the activity area at each TP location along the eight kilometre pipeline alignment. Table 6.3 summarises the stratigraphy and landform of each TP excavated.

Table 6.3 : Summary of stratigraphic and location details from excavated TPs

TP ID	Easting / Northing GDA (Zone 55)	Aboriginal cultural material	PAS ID and landform	Location and description
1	320845E/ 5843126N	No	PAS 1, stony rise	Northern end of the activity area. Adjacent to surface material from Donnybrook Rd 4 (VAHR 7822-03733) **Spit 1** – Dark brown, compact and dry humic silt. Vegetation roots, and small (< 100 mm) basalt inclusions Munsell 7.5YR 3/2 Dark Brown, pH 6 Depth 100 mm **Spit 2** - Brown and compact, dry and humic silty clay. Small (< 100 mm) basalt inclusions and glass Munsell 7.5YR 3/2 Dark Brown, pH 6 Depth 200 mm **Spit 3** – Brown compact and dry clay base Munsell 7.5YR 3/2 Dark Brown, pH 6 Total depth 210 mm
2	320818E/ 5843170N	No	PAS 1, stony rise	Northern edge of stony rise at the northern end of the activity area. **Spit 1** – Brown, compact, dry and humic silty clay. Glass, basalt boulder (>200 mm) and metal inclusions Munsell 10 YR 5/3 Brown, pH 6 Depth 100 mm **Spit 2** - Brown compact and dry silty clay down to basalt boulders (unmovable) and clay base Munsell 10 YR 5/3 Brown, pH 6 Total depth 200 mm

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TP ID	Easting / Northing GDA (Zone 55)	Aboriginal cultural material	PAS ID and landform	Location and description
3	320812E/ 5843161N	No	PAS 1, stony rise	Northern edge of stony rise at the northern end of the activity area. TP located 10 m south of TP2 **Spit 1** – Brown, compact, dry and humic silty clay. Glass, basalt rubble (<100 mm) inclusions Munsell 10 YR 5/3 Brown, pH 6 Depth 100 mm **Spit 2** - Brown, compact, dry and humic silty clay. Glass, basalt rubble (<100 mm) and one quartz piece inclusion Munsell 10 YR 5/3 Brown, pH 6 Depth 200 mm **Spit 3** - Brown and compact, dry silty clay. Basalt boulder (>200 mm) inclusions Munsell 10 YR 5/3 Brown, pH 6 Depth 300 mm **Spit 4** - Brown and compact silty clay base. Basalt boulder (>200 mm) inclusions Munsell 10 YR 5/3 Brown, pH 6 Total depth 350 mm
4	320826E/ 5843135N	No	PAS 1, stony rise	Stony rise testing under the location of Donnybrook Road LDAD 3 (VAHR 7822-03732) **Spit 1** – Brown, compact, dry and humic silt. Glass inclusions Munsell 10 YR 3/2 Brown, pH 6 Depth 100 mm **Spit 2** - Brown, compact, dry and humic silty clay grading into a clay base. Munsell 10 YR 3/2 Brown, pH 6 Total depth 200 mm
5	320130E/ 5841493N	No	PAS 2, Merri Creek terrace	Area of CHS on the northern bank of Merri Creek. Top of slight rise in this area. **Spit 1** – Brown, loose, dry and humic silty clay. Grass roots inclusions Munsell 10 YR 4/3 Brown, pH 6.5 Total depth 30 mm **Spit 2** - Dark greyish brown, dry and compact clay base Munsell 10 YR 4/2 Brown, pH 6.5 Total depth 50 mm
6	320122E/ 5841479N	No	PAS 2, Merri Creek terrace	Area of CHS on the northern bank of Merri Creek. Mid-slope of slight rise, 10 m south of TP5. **Spit 1** – Dark greyish brown, dry and compact silt. Basalt rubble (<100 mm) inclusions Munsell 10 YR 4/2 Brown, pH 6 Depth 80 mm **Spit 2** - Dark greyish brown, dry and compact clay base. Basalt rubble (<100 mm) inclusions Munsell 10 YR 4/2 Brown, pH 6 Total depth 100 mm

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TP ID	Easting / Northing GDA (Zone 55)	Aboriginal cultural material	PAS ID and landform	Location and description
7	320099E/ 5841336N	No	PAS 3, Merri Creek terrace	Area of CHS on the southern bank of Merri Creek, 25 m from bank edge. **Spit 1** - Dark yellowish brown, dry and loose, silty clay down to basalt bedrock. Basalt rubble (<100 mm) inclusions and basalt boulders (> 200 mm) Munsell 10 YR 3/4 Brown, pH 6 Total depth 50 mm
8	319869E/ 5840682N	No	PAS 4, rise on southern side of water way crossing	Located approximately 360 m west of Merri Creek, TP8 was excavated in a rise above a feeder water way into Merri Creek. **Spit 1** – Light brown, dry and moderately compacted silt with clay nodules. Grass and rootlet inclusions Munsell 7.5 YR 5/2 Brown, pH 6 Depth 100 mm **Spit 2** - Light grey, very compact and dry silt with orange clay nodules and basalt stone. Tree root inclusions Munsell 7.5 YR 5/2 Brown, pH 6 Depth 150 mm **Spit 3** – Mottled grey/orange clay base Munsell 7.5 YR 5/2 Brown, pH 6 Depth 200 mm
9	318752E/ 5837190N	No	PAS 13, Malcolm Creek terrace	Area of CHS on the southern bank of Malcolm Creek on top of the slope immediately above the creek **Spit 1** - Very dark greyish brown, dry and compact, humic silt grading into a clay base. Basalt rubble (<100 mm) and basalt boulders (> 200 mm) inclusions. Grass roots throughout Munsell 10 YR 3/2 Brown, pH 6.5 Total depth 100 mm
10	318687E/ 5836184N	No	Control Area 2 – road reserve	Road reserve between Sydney Road and Craigieburn- Hume Ramp. Testing to document the disturbance at this location. **Spit 1** – Dark brown, dry and friable silty clay. Roots, bluestone road base, metal fragments (nuts and bolts), mudstone, plastic and glass and natural quartz inclusions. Munsell 7.5 YR 3/2 Brown, pH 7 Depth 100 mm **Spit 2** - Dark brown, dry and friable silty clay, grading into a firm clay base. Roots, bluestone road base, metal fragments (nuts and bolts), mudstone, plastic and glass and natural quartz inclusions. Munsell 7.5 YR 3/2 Brown, pH 7 Total depth 200 mm

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TP ID	Easting / Northing GDA (Zone 55)	Aboriginal cultural material	PAS ID and landform	Location and description
11	318825E/ 5837420N	No	PAS 12, Malcolm Creek terrace	Area of CHS on the northern bank of Malcolm Creek on top of the rise immediately above the creek. **Spit 1** – Very dark grey, dry and friable silty clay. Basalt rubble (<100 mm) inclusions Munsell 10 YR 3/1 Brown, pH 6 Depth 100 mm **Spit 2** - Very dark grey, dry and friable silty clay, down to a stiff clay base Munsell 10 YR 2/2 Brown, pH 6 Total depth 200 mm

6.5.2 TPs 1, 2, 3 and 4

Test Pit 1 and 4 were excavated on a stony rise landform adjacent to Donnybrook Road LDAD 3 (VAHR 7822-3732) and Donnybrook Road 5 (VAHR 7822-3750), which were located in the middle and on the edge of the landform (TP 2 and 3). These TPs were excavated in order to discover if further cultural material belonging to the Aboriginal Places were present in the immediate area.

While the stratigraphic profile of the four TPs was similar, there were differences in the percentage of basalt inclusions in the TPs located upon the edge of the landform in comparison to the TPs closer to the middle. Maximum excavated depths averaged around 200 mm, with TP 3 reaching a greater depth at 350 mm. All TPs ended in a sterile, firm blocky clay base (Figure 6.1 and Figure 6.4) or a basalt boulder base (Figure 6.2 and Figure 6.3). The shallow top soil consisted of dry, humic silt that graded into clay with increasing depth. No Aboriginal cultural material was found in these TPs. Inclusions demonstrating that the area had been previously disturbed included glass and metal (Figure 6.5, Figure 6.6 and Figure 6.7). A stratigraphic profile drawing of these TPs is located in Appendix E.

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Figure 6.1 : View north of TP 1 end of excavation illustrating dark blocky clay base at a depth of 210 mm (Photograph by R Attwood, 18 February 2014)



Figure 6.2 : View north of TP 2 end of excavation illustrating a basalt boulder base at a depth of 200 mm (Photograph by R Attwood, 18 February 2014)



Figure 6.3 : View north of TP 3 end of excavation illustrating a dark clay and basalt base at a depth of 350 mm (Photograph by R Attwood, 19 February 2014)



Figure 6.4 : View north of TP 4 end of excavation illustrating a dark clay base at a depth of 200 mm (Photograph by R Attwood, 19 February 2014)

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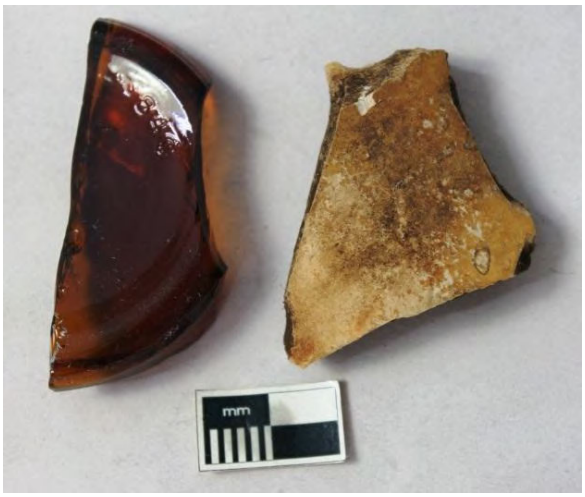

Figure 6.5 : Glass and pottery recovered from the sieve from TP 2



Figure 6.6 : Glass fragments and stone pebble recovered from the sieve in the top 50 mm of TP 3

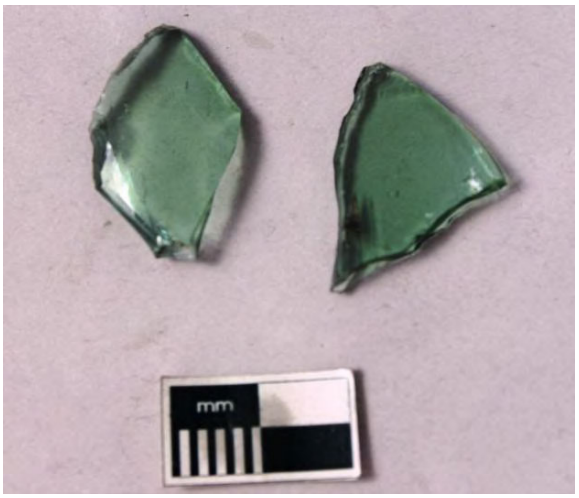

Figure 6.7 : Glass recovered from the sieve in the top 100 mm of soil deposits in TP 4



Figure 6.8 : Glass recovered from the sieve at a depth of 150 mm of soil deposits in TP 4

6.5.3 TPs 5, 6, 7 and 8

These TPs were excavated on the southern (TP 5 and 6) and northern (TP 7 and 8) terrace of the Merri Creek. The stratigraphic profiles of the four TPs were similar with the greatest difference being the density of basalt inclusions in TP 7 and TP 8 on the opposite side of Merri Creek. The silty-clay topsoil was very shallow and compact and graded into clay quickly with minimal depth. Maximum depths of the TPs were quite shallow because of this (50 mm, 100 mm, 50 mm and 200 mm respectively for the TP 5, 6, 7 and 8). All TPs ended in a sterile firm blocky clay base or a basalt boulder base (TP 7) (Figure 6.9 to Figure 6.12). A stratigraphic profile drawing of these TPs are located in Appendix E.

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Figure 6.9 : View north of TP 5 end of excavation illustrating a dark clay base at a depth of 50 mm (Photograph by R Attwood, 19 February 2014)



Figure 6.10 : View north of TP 6 end of excavation illustrating a dark clay base at a depth of 80 mm (Photograph by R Attwood, 21 February 2014)



Figure 6.11 : View north of TP 7 end of excavation at a depth of 50 mm (Photograph by R Attwood, 24 February 2014)



Figure 6.12 : View north of TP 8 end of excavation at 100 mm with a sondage excavated in the northwest corner for an additional 100 mm of depth into the clay (Photograph by R Attwood, 21 February 2014)

6.5.4 TP 10

Test Pit 10 was excavated in road reserve between the Hume Highway and the Craigieburn-Hume Exit Ramp. The area was assessed as heavily disturbed during the standard assessment and the TP was excavated in order to document the level of ground disturbance. The shallow top soil consisted of dry, humic silt that graded into clay with increasing depth. Maximum excavated depth in TP 10 was 200 mm. No Aboriginal cultural material was found in the TP. Inclusions demonstrating that the area had been previously disturbed included glass, plastic, road base and metal. A stratigraphic profile drawing of the TP is located in Appendix E.

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Figure 6.13 : Ground surface of TP 10(Photograph by E Weston, view north-east, 28 February 2014)



Figure 6.14 : View north-east of TP 10 end of excavation illustrating a clay base at a depth of 200 mm (Photograph by E Weston, 28 February 2014)

6.5.5 TP 9 and 11

Each TP was excavated on the terrace associated with Malcolm Creek. TP 9 was excavated on the southern side of Malcolm Creek approximately 100 m from the creek bank and TP 11 on the northern terrace approximately 130 m from the creek bank. TP 11 was topographically higher than TP 9 as the northern side of Malcolm Creek is more elevated than the southern side. The distances of the TPs from the creek bank are an indication of how wide the cutting of Malcom Creek is in the landscape. The two TPs were the closest distance to Malcolm Creek in an area that would not have been subject to flooding or on a steep slope. Maximum excavated depths were 100 mm for TP 9 and 200 mm for TP 11. Excavation could have ceased in TP 11 at 100 mm, however excavation continued into the blocky clay to ensure no cultural material was present. The stratigraphic profiles of both TPs were similar and characteristic of the activity area in general; a silty-clay topsoil grading into blocky clay. The major difference of the Malcolm Creek TP's was the colour which was a dark brown / dark grey which was more similar to the colouration of TPs 1- 4 at the northern end of the activity area. As has been common to the activity area, basalt rubble inclusions were present. No Aboriginal cultural material was found in these TPs. A stratigraphic profile drawing of these TPs are located in Appendix E.



Figure 6.15 : View north of TP 9 end of excavation illustrating a dark clay base at a depth of 100 mm (Photograph by E Weston, 28 February 2014)



Figure 6.16 : View north of TP 11 end of excavation illustrating a dark clay base at a depth of 200 mm (Photograph by J Hill, 28 February 2014)

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6.5.6 Shovel probes

The SPs did little to establish the stratigraphy of the activity area; however, they were a vital aid in noting changes in the soil content and profile across the landscape. The soil deposits from the SPs were examined for any changes that were not consistent with the established stratigraphy from the relevant 1 x 1 m TPs. Of the 549 SPs excavated, none deviated from the soil profile established from the relevant TPs in that area.



Figure 6.17 : Example of a shovel probe excavated during the first day of complex assessment (Photograph by A Goldfarb, 18 February 2014)



Figure 6.18 : Shovel probe excavated on the last day of assessment (Photograph by J Hill, 28 February 2014)

6.6 Conclusions from the complex assessment

A systematic complex assessment was undertaken of the activity area focussing on those areas where Aboriginal cultural material was most likely to be discovered (ie the areas of PAS). A total of 565 test excavation units were excavated within the activity area, comprising 11 TPs, five STPs and 549 SPs. The maximum depth reached in any excavation unit was 400 mm, with most excavation units averaging 150-200 mm in depth. No new Aboriginal Places were recorded as a result of the sub-surface testing, however, it was established that Donnybrook Road 5 (VAHR 7822-3750) did have a sub-surface context.

The complex assessment provided valuable information regarding the nature of the soil deposits within the activity area and the cultural heritage sensitivity of the paddocks between Craigieburn and Donnybrook. Even though areas of CHS exist around significant waterways such as Merri Creek and Malcolm Creek, the sensitivity of these waterways is very much dependent upon existing conditions. Most of the Malcolm Creek area had been heavily disturbed through basalt quarrying and clearance works, possibly associated with the adjacent railway line. As the majority of excavations within the Merri Creek area of CHS ceased at approximately 150 m from the creek banks it can only be speculated that the shallow soil deposits that were a characteristic of the activity area continued to the creek bank. This was confirmed to some extent by the excavation of TP 7 within 25 m of the creek bank, which also had shallow deposits. The lack of depth of the potential culturally bearing soil deposits also indicates that if Aboriginal cultural material is discovered within the activity area during construction, then it will most likely not be *in situ* as the 150-200 mm depths are within the plough zone.

The small number of Aboriginal Places recorded during this assessment and the nature of Aboriginal Places within the local area as documented in the desktop assessment do not support the conclusions from the predictive model developed in Section 4.6, which established that low density artefact surface scatters would be the most likely Aboriginal Place type in the activity area. A number of these Aboriginal Places was expected to have been discovered during the assessment and this did not occur.

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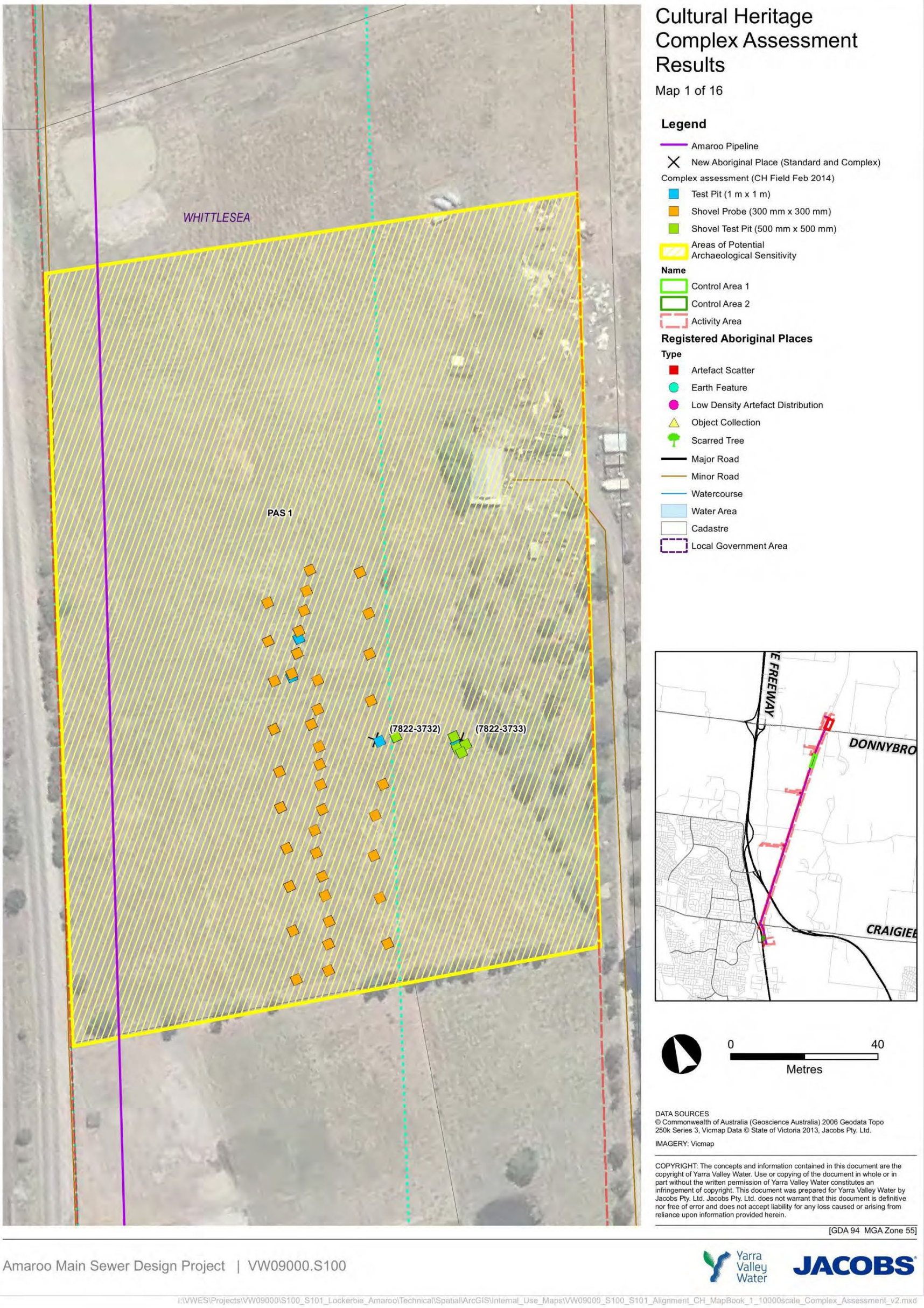

Figure 6.19: Map 1 – Location of sub-surface testing in PAS 1

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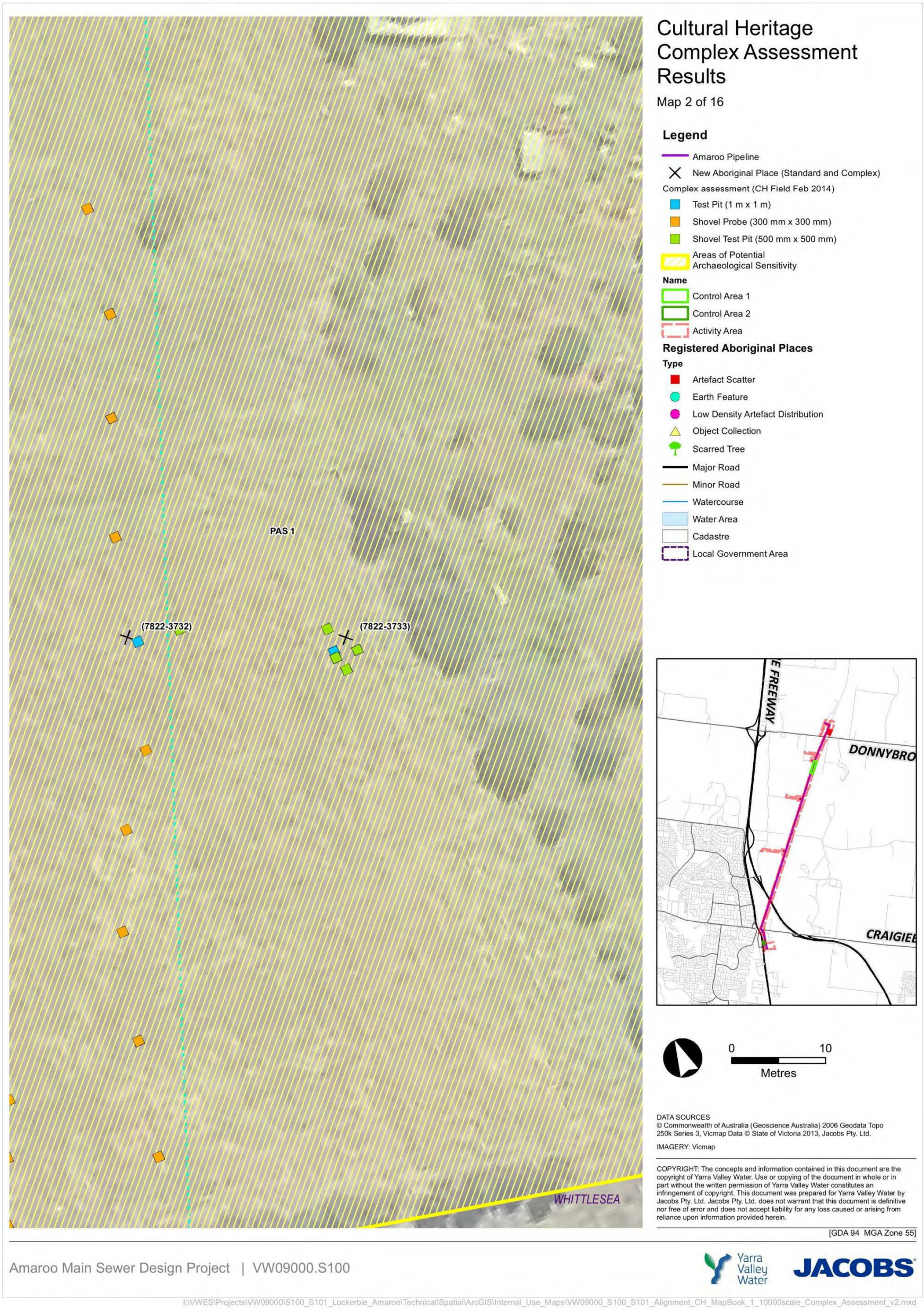

Figure 6.20 Map 2 – Close up view of the sub-surface testing area in PAS 1

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Cultural Heritage Complex Assessment Results

Map 3 of 16

Legend

- Amaroo Pipeline
- New Aboriginal Place (Standard and Complex)

Complex assessment (CH Field Feb 2014)

- Test Pit (1 m x 1 m)
- Shovel Probe (300 mm x 300 mm)
- Shovel Test Pit (500 mm x 500 mm)
- Areas of Potential Archaeological Sensitivity

Name

- Control Area 1
- Control Area 2
- Activity Area

Registered Aboriginal Places

Type

- Artefact Scatter
- Earth Feature
- Low Density Artefact Distribution
- Object Collection
- Scarred Tree
- Major Road
- Minor Road
- Watercourse
- Water Area
- Cadastre
- Local Government Area

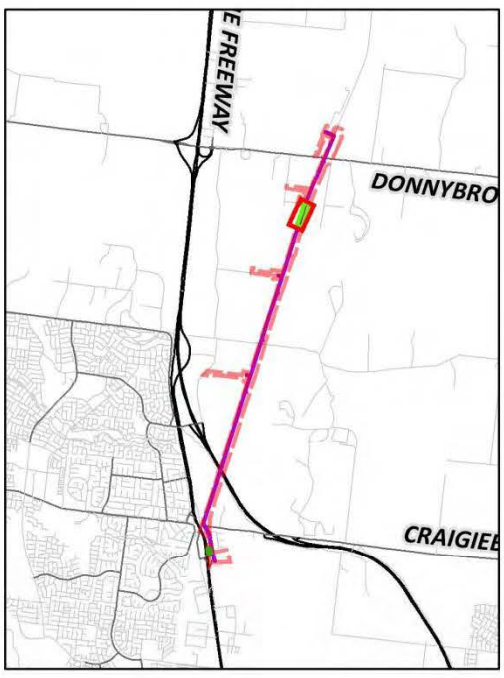

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Figure 6.21 : Map 3 – Location of sub-surface testing in control area 1

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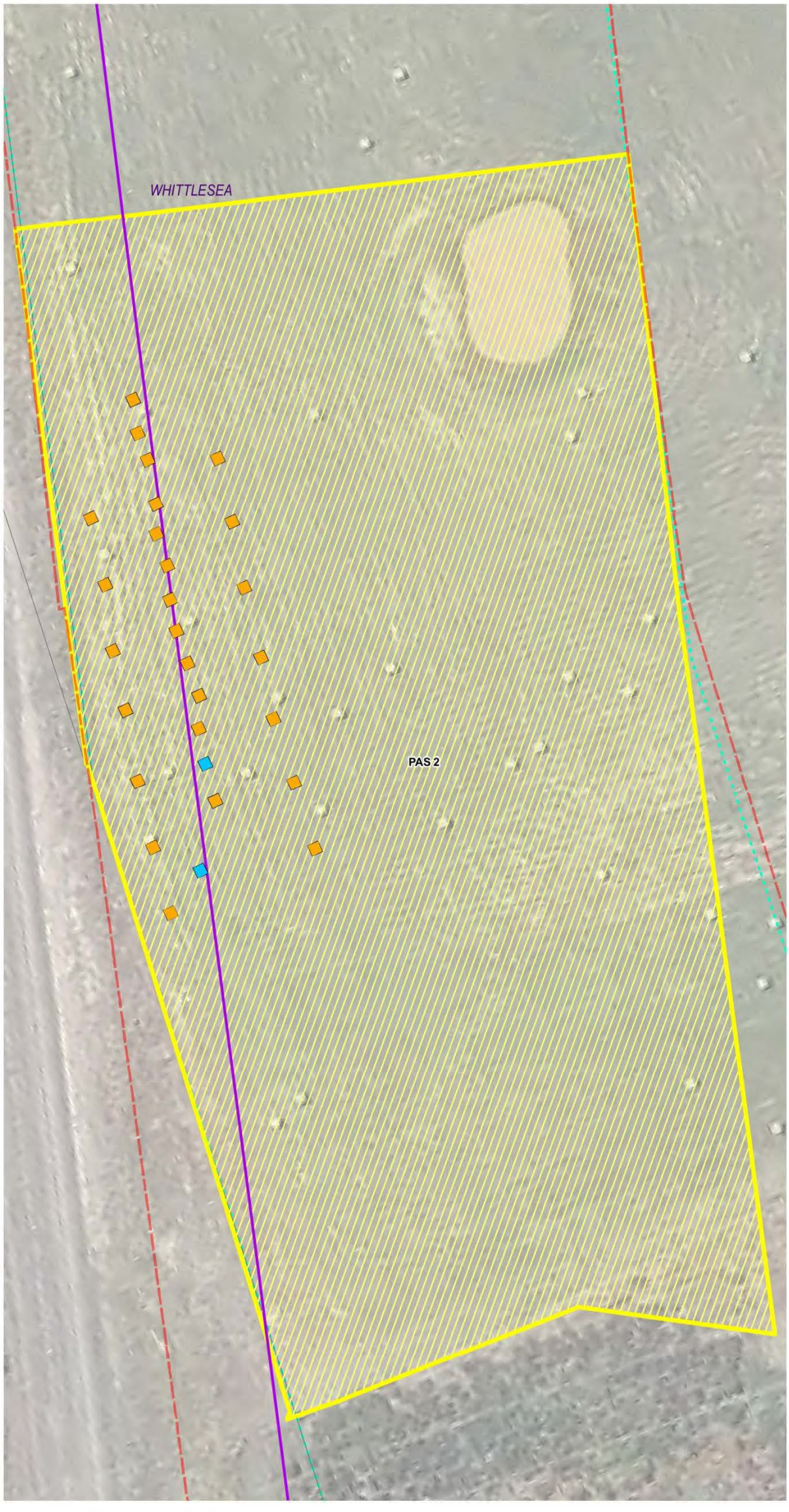

Cultural Heritage Complex Assessment Results

Map 4 of 16

Legend

- Amaroo Pipeline
- New Aboriginal Place (Standard and Complex)

Complex assessment (CH Field Feb 2014)

- Test Pit (1 m x 1 m)
- Shovel Probe (300 mm x 300 mm)
- Shovel Test Pit (500 mm x 500 mm)
- Areas of Potential Archaeological Sensitivity

Name

- Control Area 1
- Control Area 2
- Activity Area

Registered Aboriginal Places

Type

- Artefact Scatter
- Earth Feature
- Low Density Artefact Distribution
- Object Collection
- Scarred Tree
- Major Road
- Minor Road
- Watercourse
- Water Area
- Cadastre
- Local Government Area

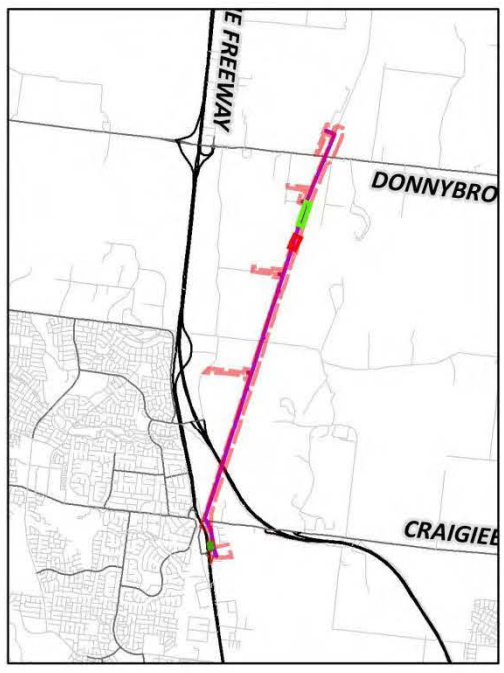

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Figure 5.2: Map 4 of 16 Complex Assessment PAS 2

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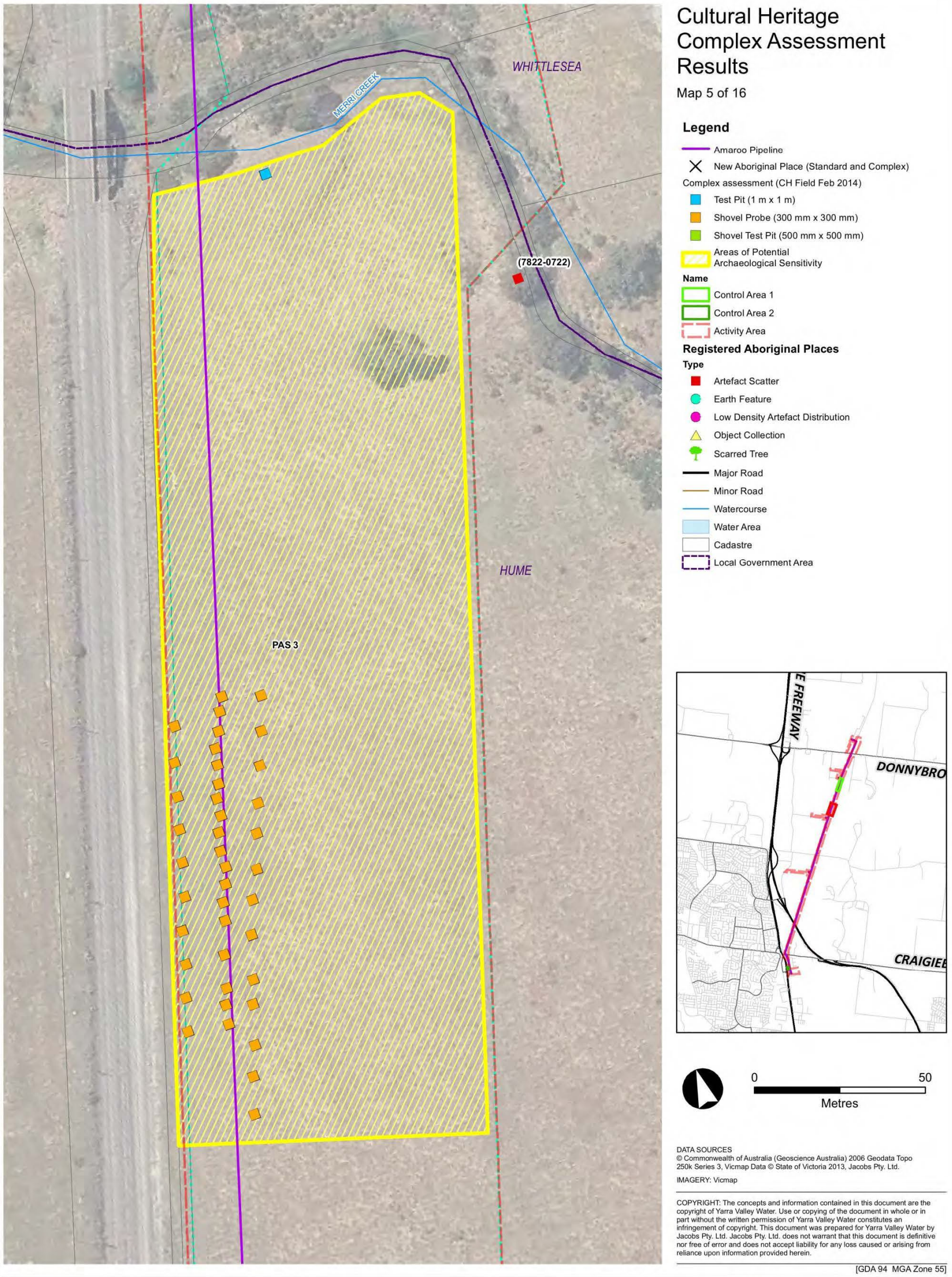

Figure 6.23 : Map 5 – Location of sub-surface testing in PAS 3

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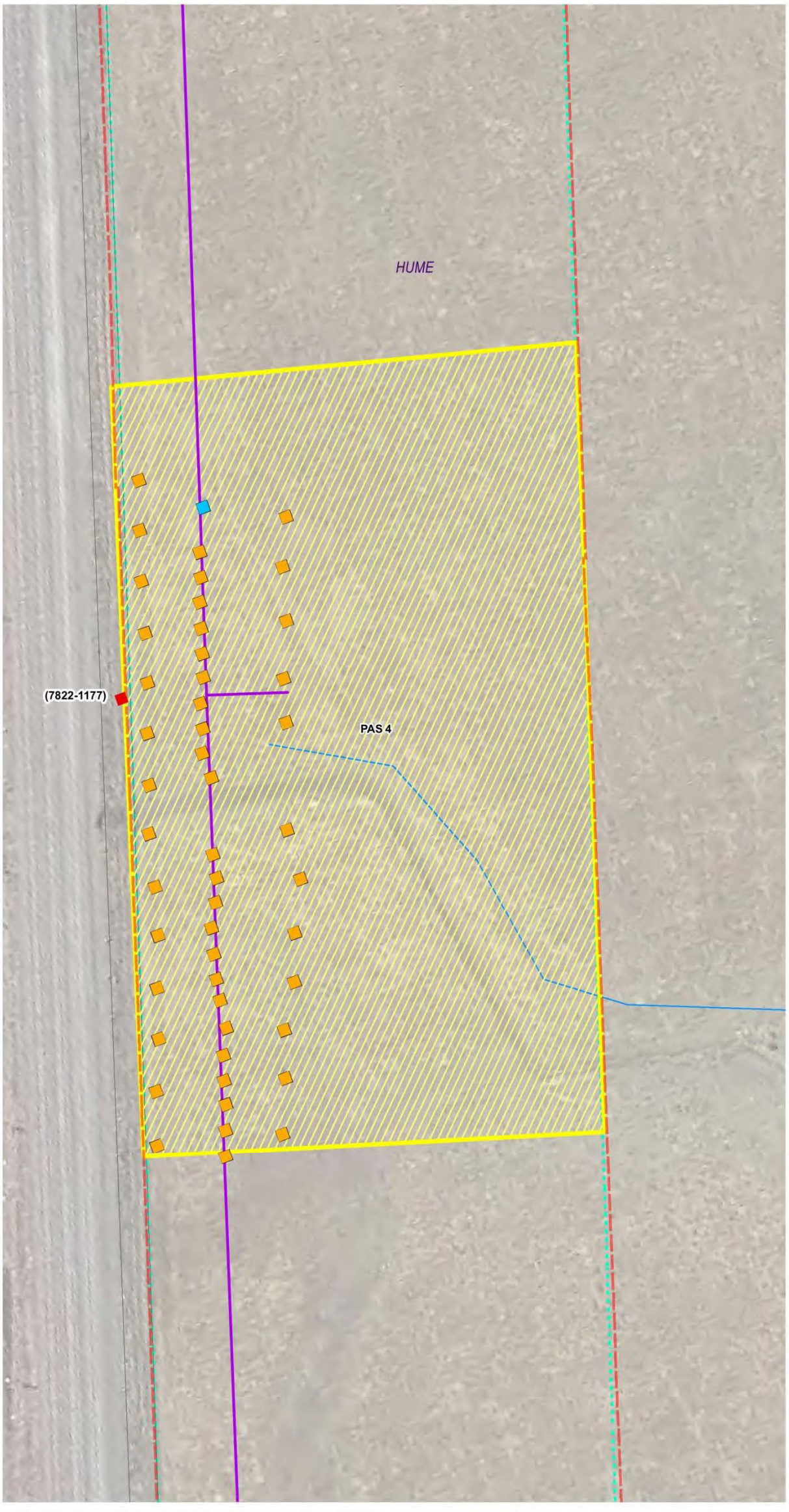

Cultural Heritage Complex Assessment Results

Map 6 of 16

Legend

- Amaroo Pipeline
- New Aboriginal Place (Standard and Complex)

Complex assessment (CH Field Feb 2014)

- Test Pit (1 m x 1 m)
- Shovel Probe (300 mm x 300 mm)
- Shovel Test Pit (500 mm x 500 mm)
- Areas of Potential Archaeological Sensitivity

Name

- Control Area 1
- Control Area 2
- Activity Area

Registered Aboriginal Places

Type

- Artefact Scatter
- Earth Feature
- Low Density Artefact Distribution
- Object Collection
- Scarred Tree
- Major Road
- Minor Road
- Watercourse
- Water Area
- Cadastre
- Local Government Area

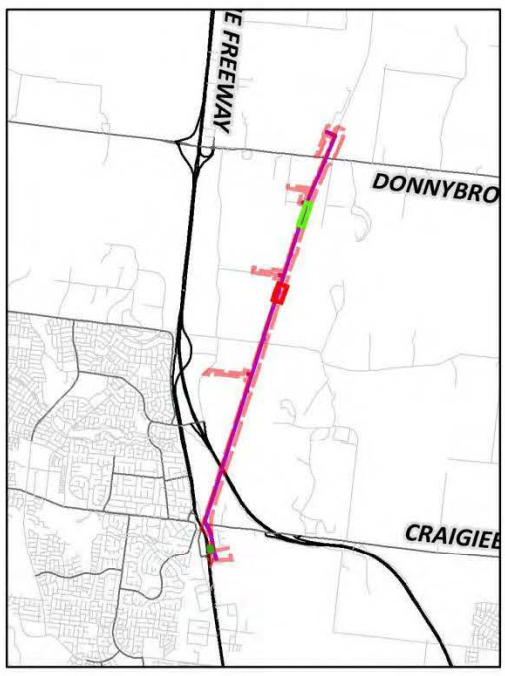

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Figure 6.24 : Map 6 – Location of sub-surface testing in PAS 4

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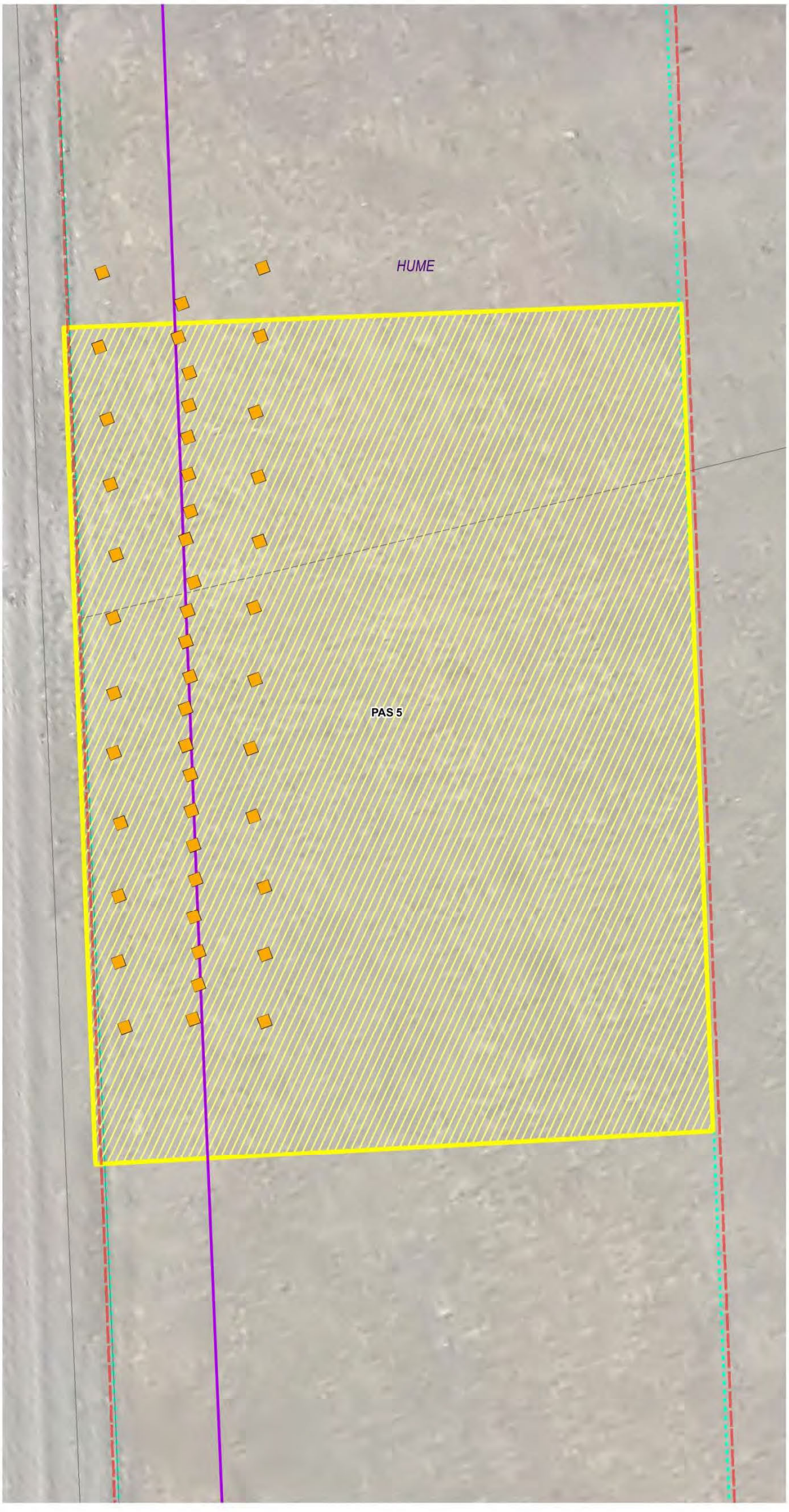

Cultural Heritage Complex Assessment Results

Map 7 of 16

Legend

- Amaroo Pipeline
- New Aboriginal Place (Standard and Complex)

Complex assessment (CH Field Feb 2014)

- Test Pit (1 m x 1 m)
- Shovel Probe (300 mm x 300 mm)
- Shovel Test Pit (500 mm x 500 mm)
- Areas of Potential Archaeological Sensitivity

Name

- Control Area 1
- Control Area 2
- Activity Area

Registered Aboriginal Places

Type

- Artefact Scatter
- Earth Feature
- Low Density Artefact Distribution
- Object Collection
- Scarred Tree
- Major Road
- Minor Road
- Watercourse
- Water Area
- Cadastre
- Local Government Area

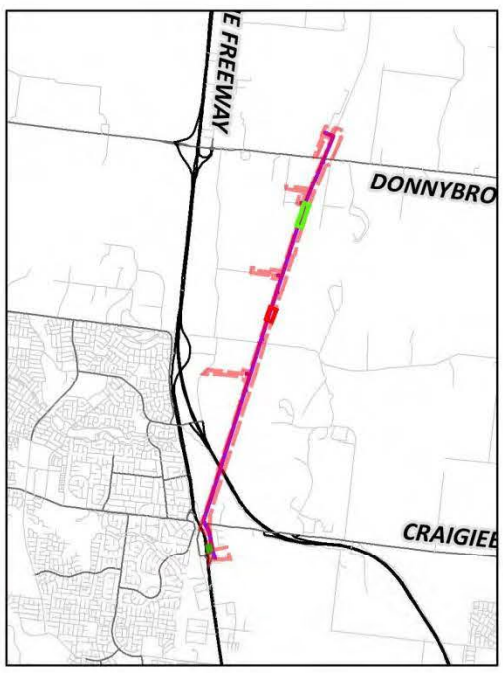

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Figure 6.5: Map 7 – Location of sub-surface testing PAS 5

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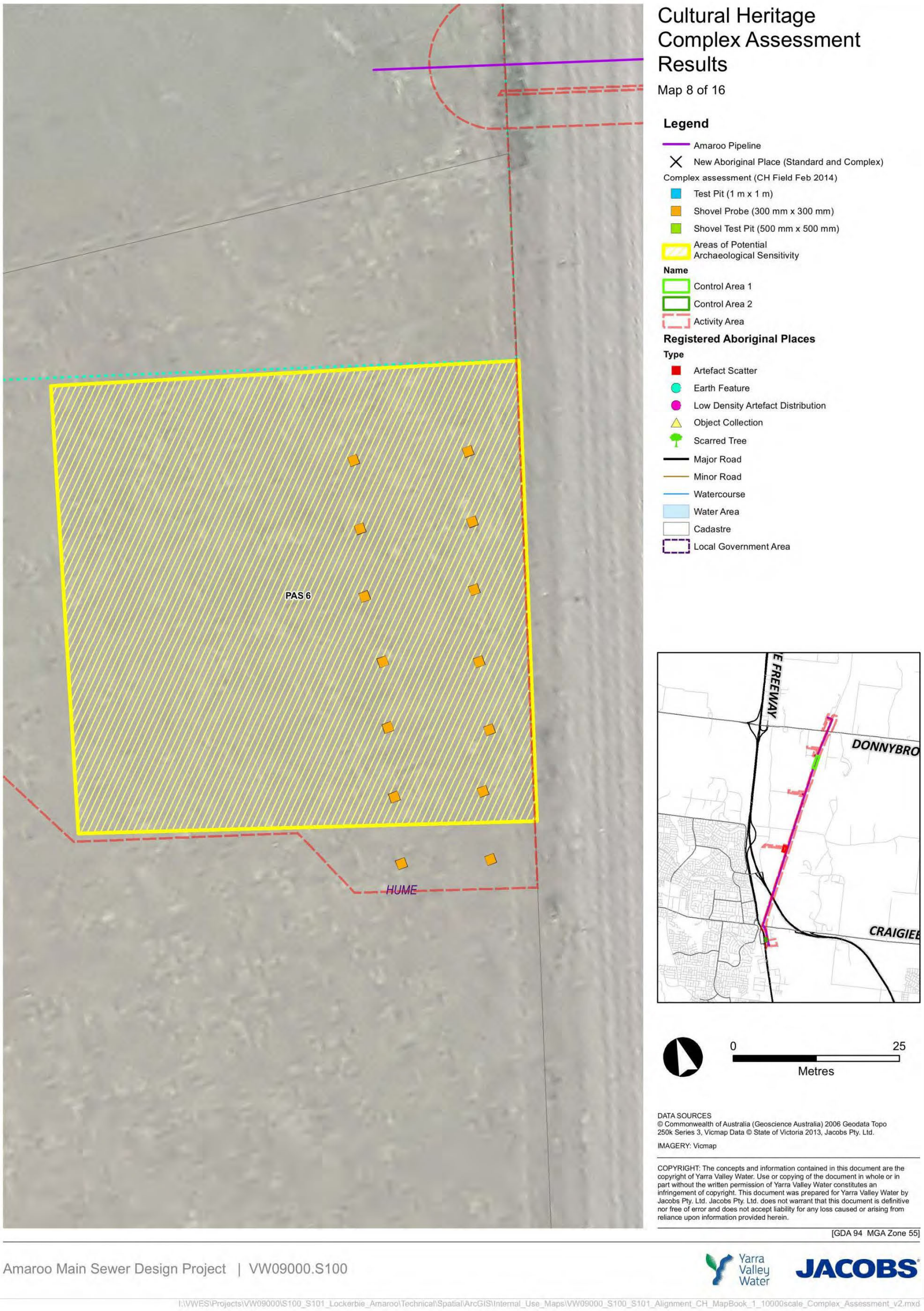

Figure 6.20 Map 8 - Location of sub-surface testing at PAS 6

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Cultural Heritage Complex Assessment Results

Map 9 of 16

Legend

- Amaroo Pipeline
- New Aboriginal Place (Standard and Complex)

Complex assessment (CH Field Feb 2014)

- Test Pit (1 m x 1 m)
- Shovel Probe (300 mm x 300 mm)
- Shovel Test Pit (500 mm x 500 mm)
- Areas of Potential Archaeological Sensitivity

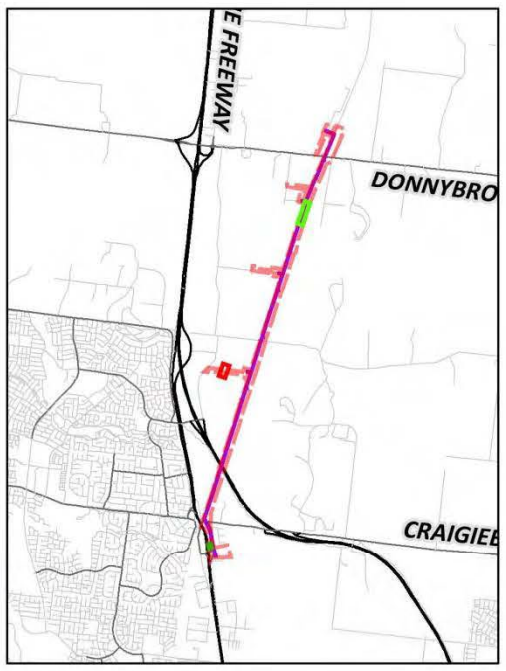
Name

- Control Area 1
- Control Area 2
- Activity Area

Registered Aboriginal Places

Type

- Artefact Scatter
- Earth Feature
- Low Density Artefact Distribution
- Object Collection
- Scarred Tree
- Major Road
- Minor Road
- Watercourse
- Water Area
- Cadastre
- Local Government Area



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[GDA 94 MGA Zone 55]

Amaroo Main Sewer Design Project | VW09000.S100

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Figure 6.27: Map 9 - Location of sub-surface testing PPAS 7

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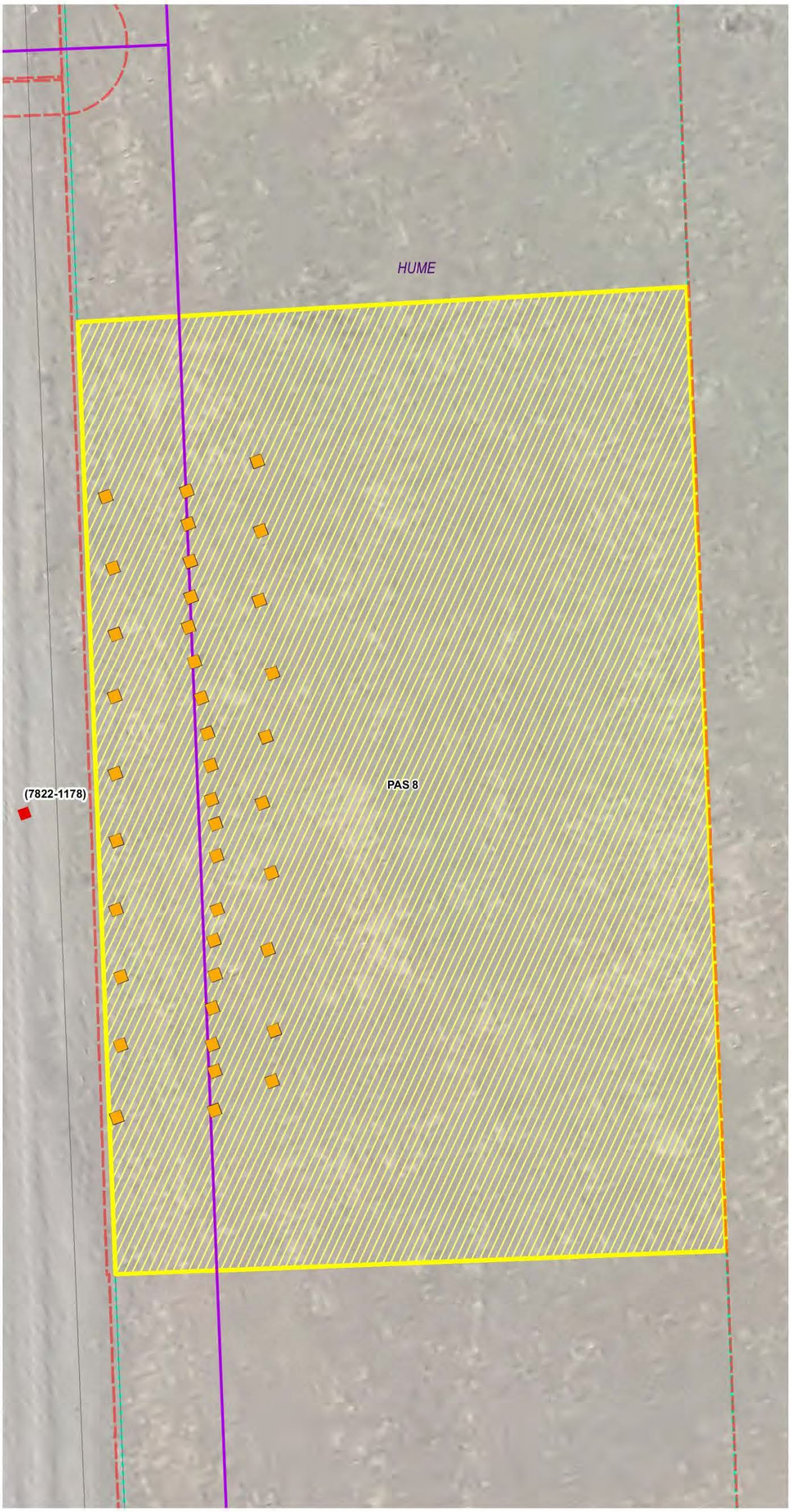

Cultural Heritage Complex Assessment Results

Map 10 of 16

Legend

- Amaroo Pipeline
- New Aboriginal Place (Standard and Complex)

Complex assessment (CH Field Feb 2014)

- Test Pit (1 m x 1 m)
- Shovel Probe (300 mm x 300 mm)
- Shovel Test Pit (500 mm x 500 mm)
- Areas of Potential Archaeological Sensitivity

Name

- Control Area 1
- Control Area 2
- Activity Area

Registered Aboriginal Places

Type

- Artefact Scatter
- Earth Feature
- Low Density Artefact Distribution
- Object Collection
- Scarred Tree
- Major Road
- Minor Road
- Watercourse
- Water Area
- Cadastre
- Local Government Area

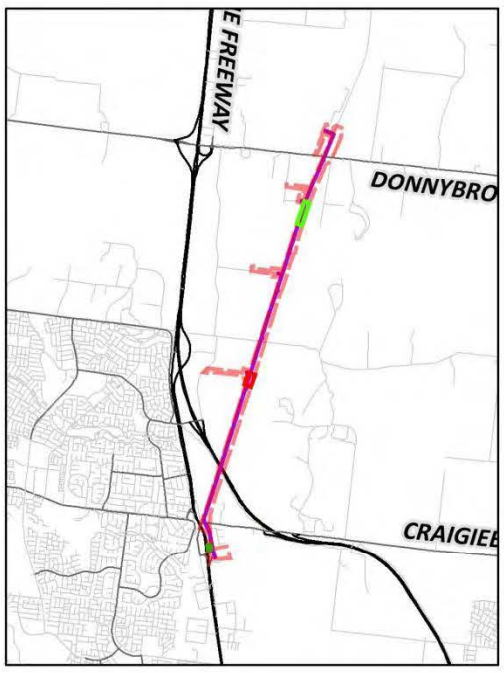

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Figure 6.28 : Map 10 - Location of sub-surface testing in PAS 8

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Figure 6.29 - Map 11 - Location of sub-surface testing in PAS 9

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Figure 6.30: Map 12 - Location of sub-surface testing in PAS 10

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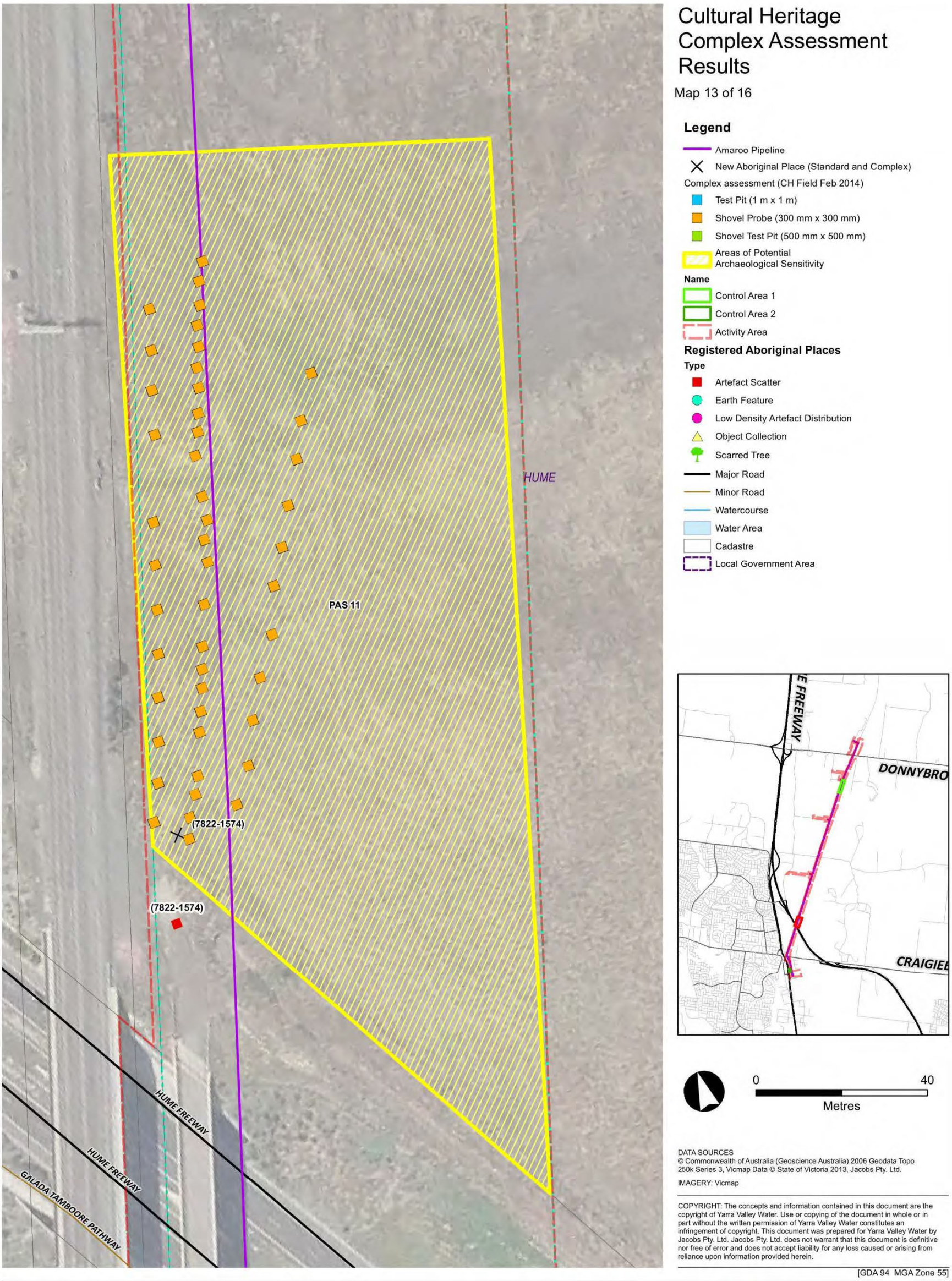

Figure 6.31 : Map 13 - Location of sub-surface testing in PAS 11

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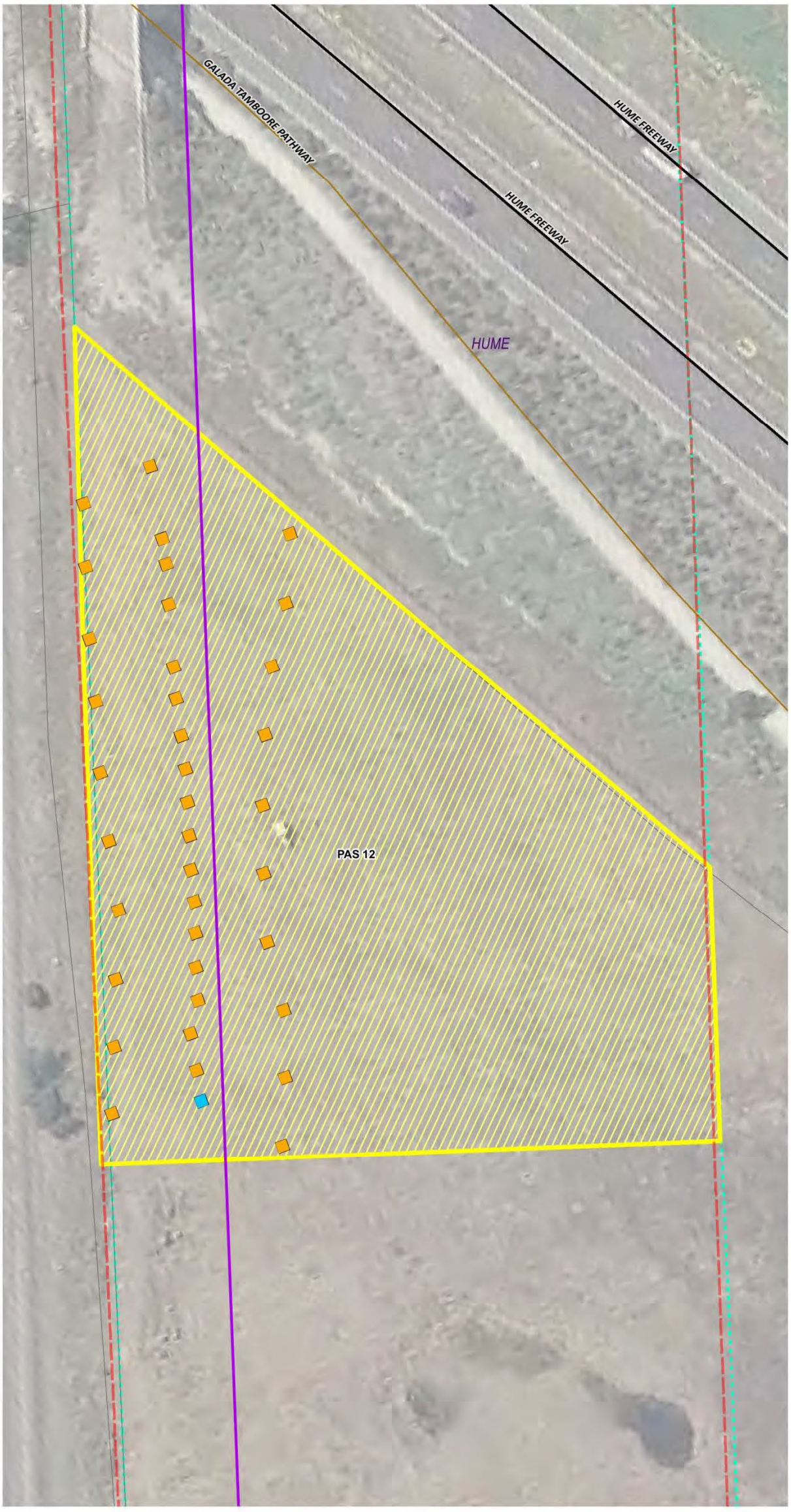

Cultural Heritage Complex Assessment Results

Map 14 of 16

Legend

- Amaroo Pipeline
- New Aboriginal Place (Standard and Complex)

Complex assessment (CH Field Feb 2014)

- Test Pit (1 m x 1 m)
- Shovel Probe (300 mm x 300 mm)
- Shovel Test Pit (500 mm x 500 mm)
- Areas of Potential Archaeological Sensitivity

Name

- Control Area 1
- Control Area 2
- Activity Area

Registered Aboriginal Places

Type

- Artefact Scatter
- Earth Feature
- Low Density Artefact Distribution
- Object Collection
- Scarred Tree
- Major Road
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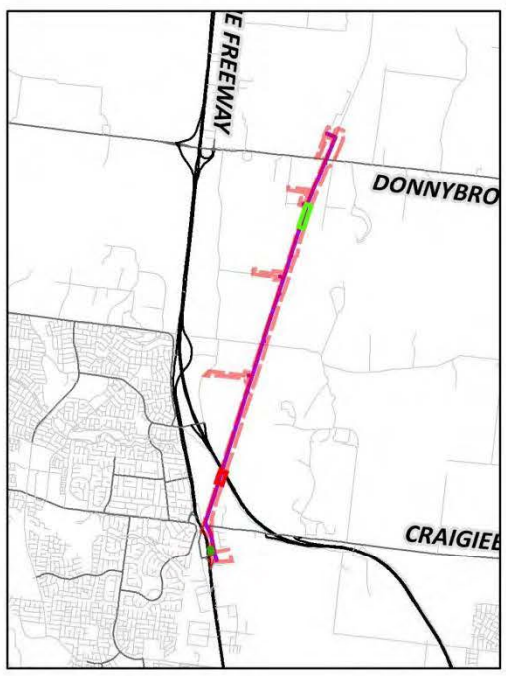
- Water Area
- Cadastre
- Local Government Area



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Yarra Valley Water

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Figure 6.32 : Map 14 – Location of sub-surface testing in PAS 12

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Figure 6.33 Map 15 – Location of sub-surface testing in PAS 13

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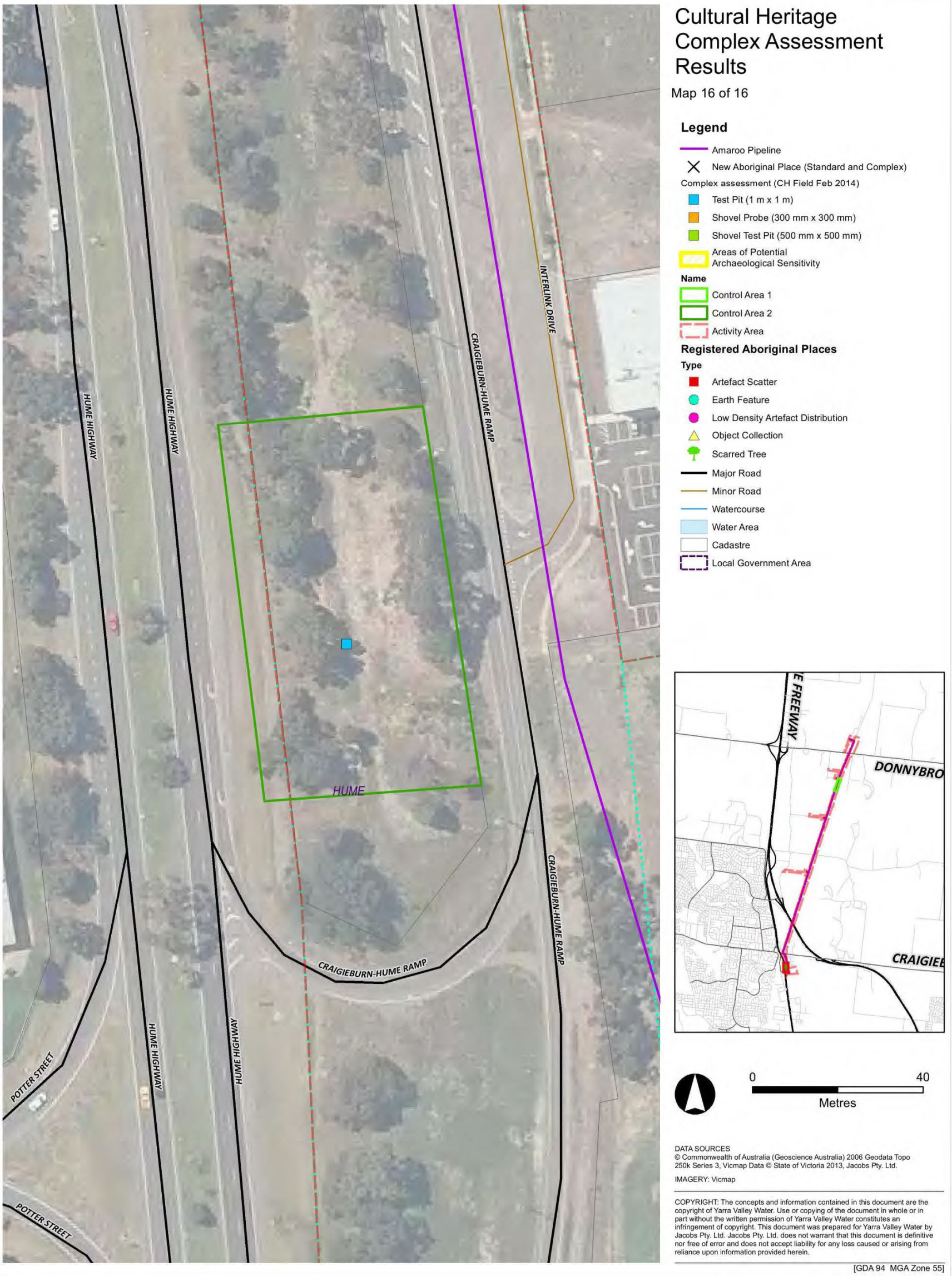

Figure 6-34 Map 16 - Location of test surface testing Control Area 2

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The Victorian Government acknowledges the Traditional Owners of Victoria and pays respects to their ongoing connection to their Country, History and Culture. The Victorian Government extends this respect to their Elders, past, present and emerging.

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

VOLUME 10863 FOLIO 217

Security no : 124132585802C
Produced 02/03/2026 01:19 PM

LAND DESCRIPTION

Lot L on Plan of Subdivision 521532K.
PARENT TITLE Volume 10804 Folio 979
Created by instrument AD458118X 22/02/2005

REGISTERED PROPRIETOR

Estate Fee Simple
Sole Proprietor
ROADS CORPORATION of 60 DENMARK STREET KEW VIC 3101
AD458118X 22/02/2005

ENCUMBRANCES, CAVEATS AND NOTICES

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 PS521532K FOR FURTHER DETAILS AND BOUNDARIES

ACTIVITY IN THE LAST 125 DAYS

NIL

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

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

Street Address: 15 MT RIDLEY ROAD CRAIGIEBURN VIC 3064

ADMINISTRATIVE NOTICES

NIL

eCT Control 00026E HEAD, TRANSPORT FOR VICTORIA
Effective from 08/10/2015

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Number of Pages (excluding this cover sheet)	**9**
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PLAN OF SUBDIVISION

Stage No.	LR use only	Plan Number
/	EDITION 2	PS 521532K

Location of Land

Parish: KALKALLO

Township: –

Section: –

Crown Allotment: –

Crown Portion: 1 (PART)

Title Reference: VOL FOL

Last Plan Reference: PS 520164T LOT F

Postal Address: ROYAL TERRACE
(at time of subdivision) CRAIGIEBURN 3064

AMG Co-ordinates (of approx. centre of land in plan) E 317650 N 5839050 Zone: 55

Council Certification and Endorsement

Council Name: HUME CITY COUNCIL Ref: S.4262

1. This plan is certified under section 6 of the Subdivision Act 1988.
2. ~~This plan is certified under section 11(7) of the Subdivision Act 1988. Date of original certification under section 6 / /~~
3. ~~This is a statement of compliance issued under section 21 of the Subdivision Act 1988.~~

OPEN SPACE

(i) A requirement for public open space under section 18 of the Subdivision Act 1988 has/~~has not~~ been made.

~~(ii) The requirement has been satisfied.~~

~~(iii) The requirement is to be satisfied in Stage.....~~

Council Delegate
~~Council Seal~~
Date 27 / 1 / 04

Re-certified under section 11(7) of the Subdivision Act 1988

Council Delegate
Council Seal
Date / /

Vesting of Roads and/or Reserves

Identifier	Council/Body/Person
ROADS R1	HUME CITY COUNCIL
RESERVE No.1	HUME CITY COUNCIL
RESERVE No.2	HUME CITY COUNCIL
RESERVE No.3	HUME CITY COUNCIL
RESERVE No.4	AGL ELECTRICITY LIMITED

Notations

Staging This ~~is~~/is not a staged subdivision
Planning Permit No.

Depth Limitation DOES NOT APPLY

AREA OF SUBDIVIDED LAND IS 6·995ha (EXCLUDING LOT H & L).

TANGENT POINTS ARE SHOWN THUS:

LOTS 1 TO 588 (BOTH INCLUSIVE), LOTS A TO G (BOTH INCLUSIVE) AND LOTS I TO K (BOTH INCLUSIVE) HAVE BEEN OMITTED FROM THIS PLAN.

THERE ARE NO EASEMENTS E-2 OR E-5 SHOWN ON THIS PLAN

NIS - NOT IN SUBDIVISION.

Survey This plan is/~~is not~~ based on survey

This survey has been connected to permanent marks no(s) 74 & 96
In Proclaimed Survey Area No.

Other purpose of this plan:

CREATION OF RESTRICTION UPON REGISTRATION OF THIS PLAN (SEE SHEET 8)

REMOVAL OF THE WHOLE OF EASEMENT E-2 AND THAT PART OF EASEMENT E-1 SHOWN IN LOT AA ON PS 513844K AS NOT INCLUDED HEREIN

GROUNDS FOR REMOVAL
HUME CITY COUNCIL PLANNING PERMIT No.

Easement Information

Legend: E – Encumbering Easement, Condition in Crown Grant in the Nature of on Easement or Other Encumbrance; A – Appurtenant Easement; R – Encumbering Easement (Road)

Subject Land	Purpose	Width (metres)	Origin	Land Benefited/In Favour Of
E-1	DRAINAGE & SEWERAGE	SEE DIAG	PS 422018C	LAND IN PS 422018C
E-1	SEWERAGE	SEE DIAG	PS 422018C	YARRA VALLEY WATER LIMITED
E-1	DRAINAGE & SEWERAGE	SEE DIAG	PS 422068L	LAND IN PS 422068L
E-3	DRAINAGE & SEWERAGE	SEE DIAG	X613350W	LAND IN PS 422068L
E-3	SEWERAGE	SEE DIAG	X613350W	YARRA VALLEY WATER LIMITED
E-4	DRAINAGE	SEE DIAG	PS 513844K	HUME CITY COUNCIL
E-4	SEWERAGE	SEE DIAG	PS 513844K	YARRA VALLEY WATER LIMITED
E-6	DRAINAGE	SEE DIAG	THIS PLAN	HUME CITY COUNCIL
E-6	SEWERAGE	SEE DIAG	THIS PLAN	YARRA VALLEY WATER LIMITED
E-7	POWERLINE	SEE DIAG	THIS PLAN - Sec. 88 ELECTRICITY INDUSTRY ACT 2000	AGL ELECTRICITY LIMITED
E-8	POWERLINE	SEE DIAG	THIS PLAN - Sec. 88 ELECTRICITY INDUSTRY ACT 2000	AGL ELECTRICITY LIMITED
E-8	DRAINAGE	SEE DIAG	PS 513844K	HUME CITY COUNCIL
E-8	SEWERAGE	SEE DIAG	PS 513844K	YARRA VALLEY WATER LIMITED

LR use only

Statement of Compliance/ Exemption Statement

Received ☑

Date 31 / 5 /04

LR use only

PLAN REGISTERED

TIME 6·20pm

DATE 1 / 6 / 04

Assistant Registrar of Titles

Sheet 1 of 8 sheets

HIGHLANDS STAGE 5 60 LOTS

Bosco Jonson Pty Ltd
Surveyors & Planners
P.O. Box 243, South Melbourne, Vic. 3205
11 Palmerston Crescent, South Melbourne
Tel. (03) 9699 1400 Fax (03) 9699 5892

LICENSED SURVEYOR (PRINT) GEOFFREY JAMES TURNER

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Stage No. /

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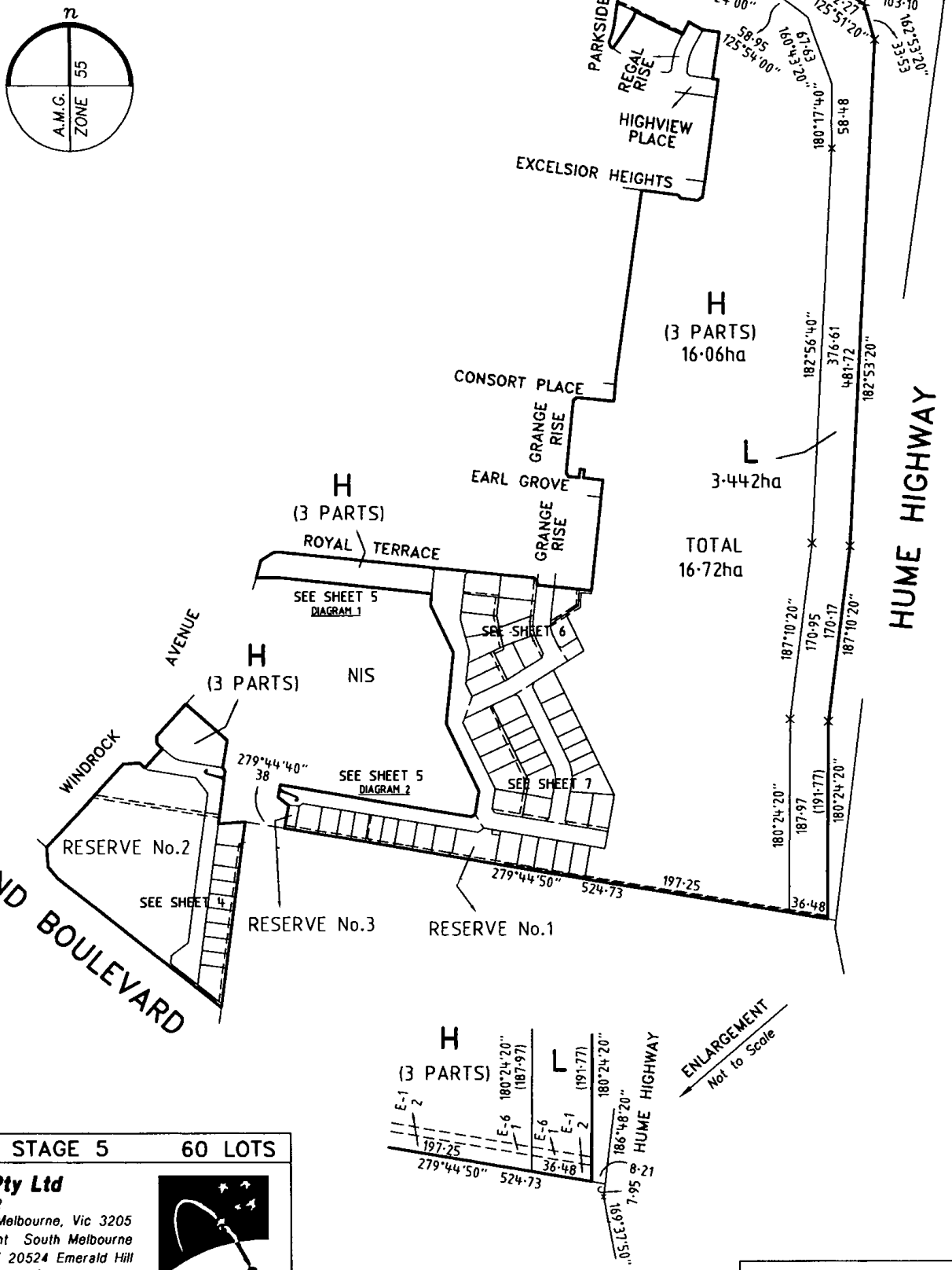

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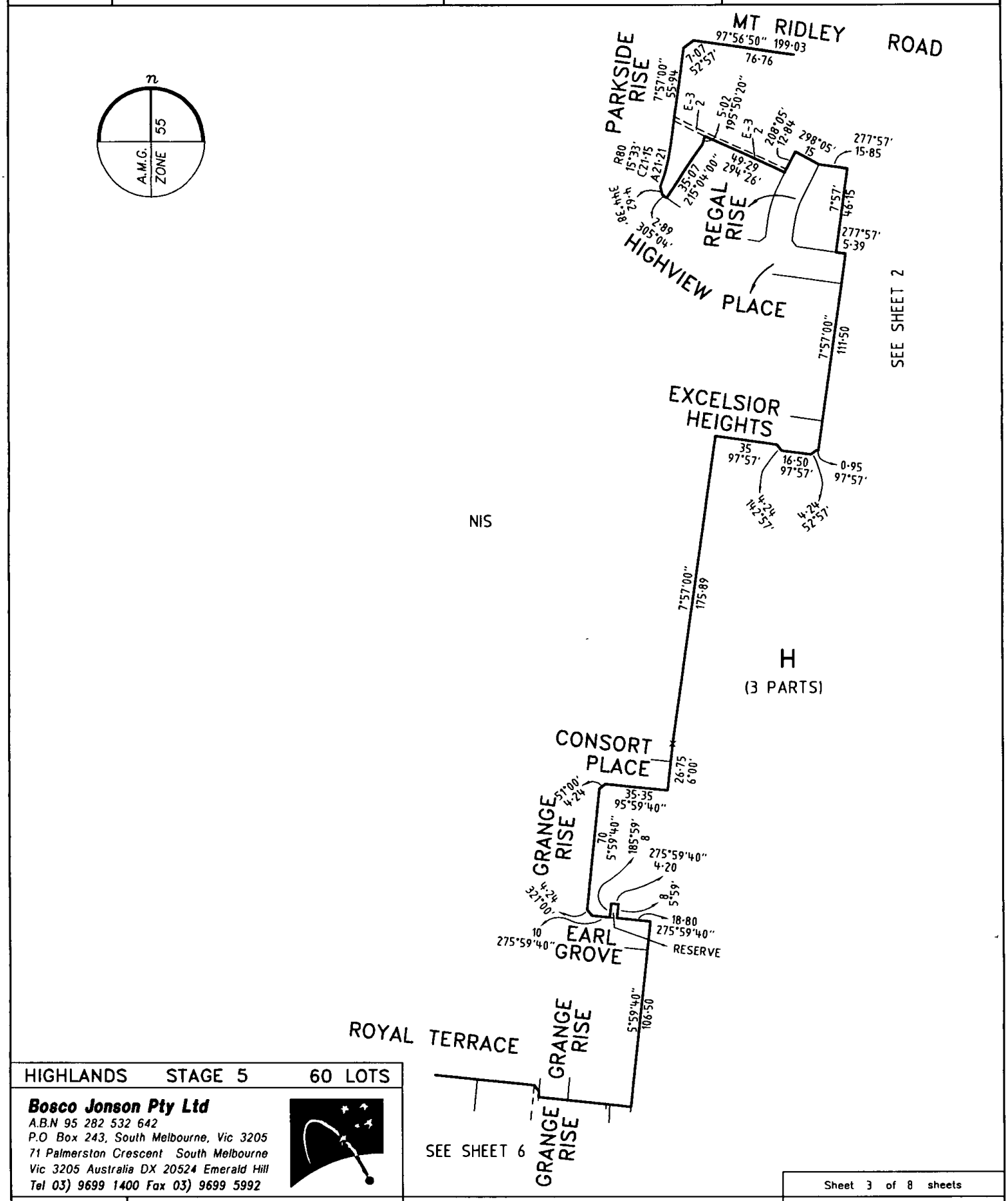

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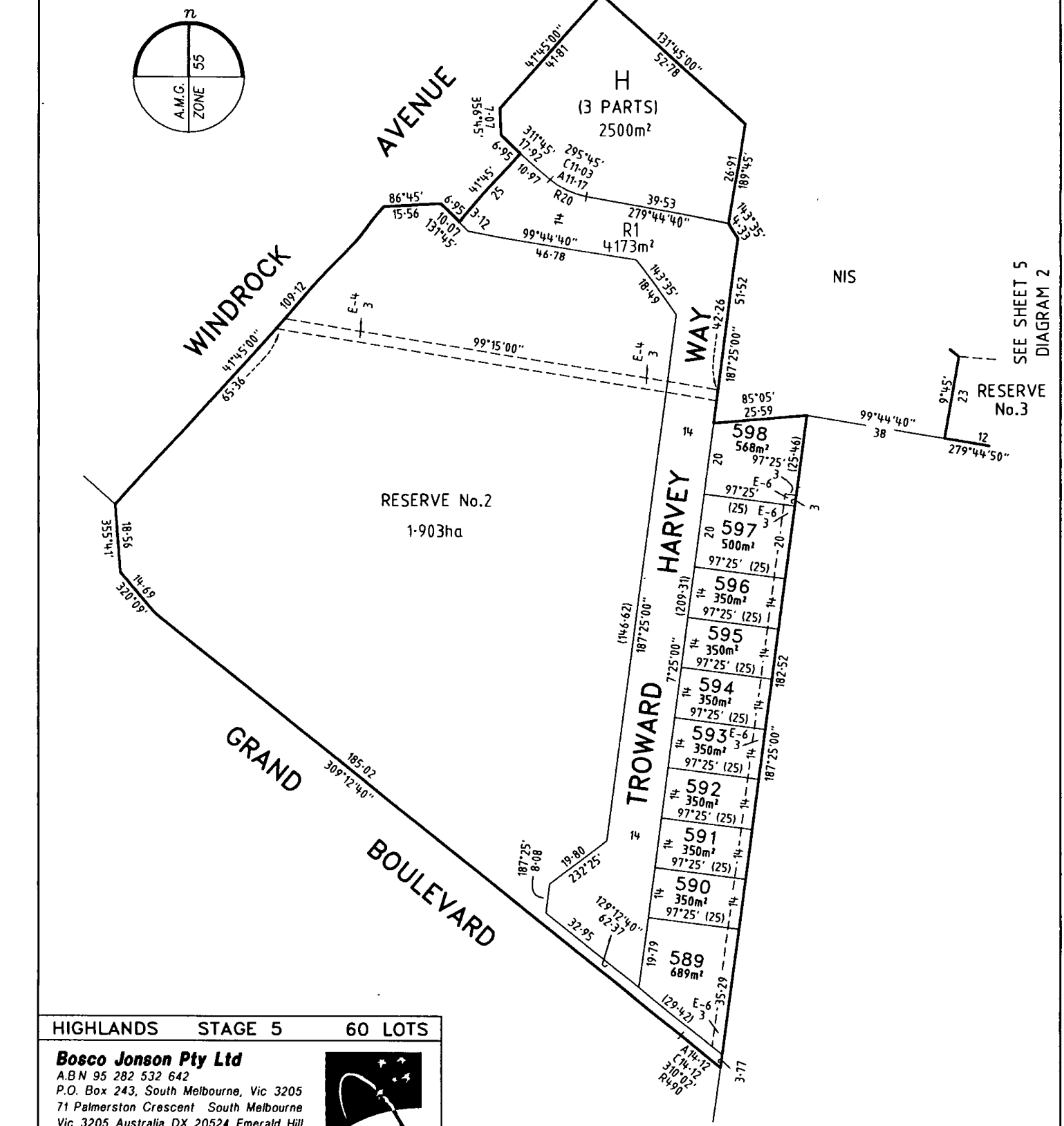

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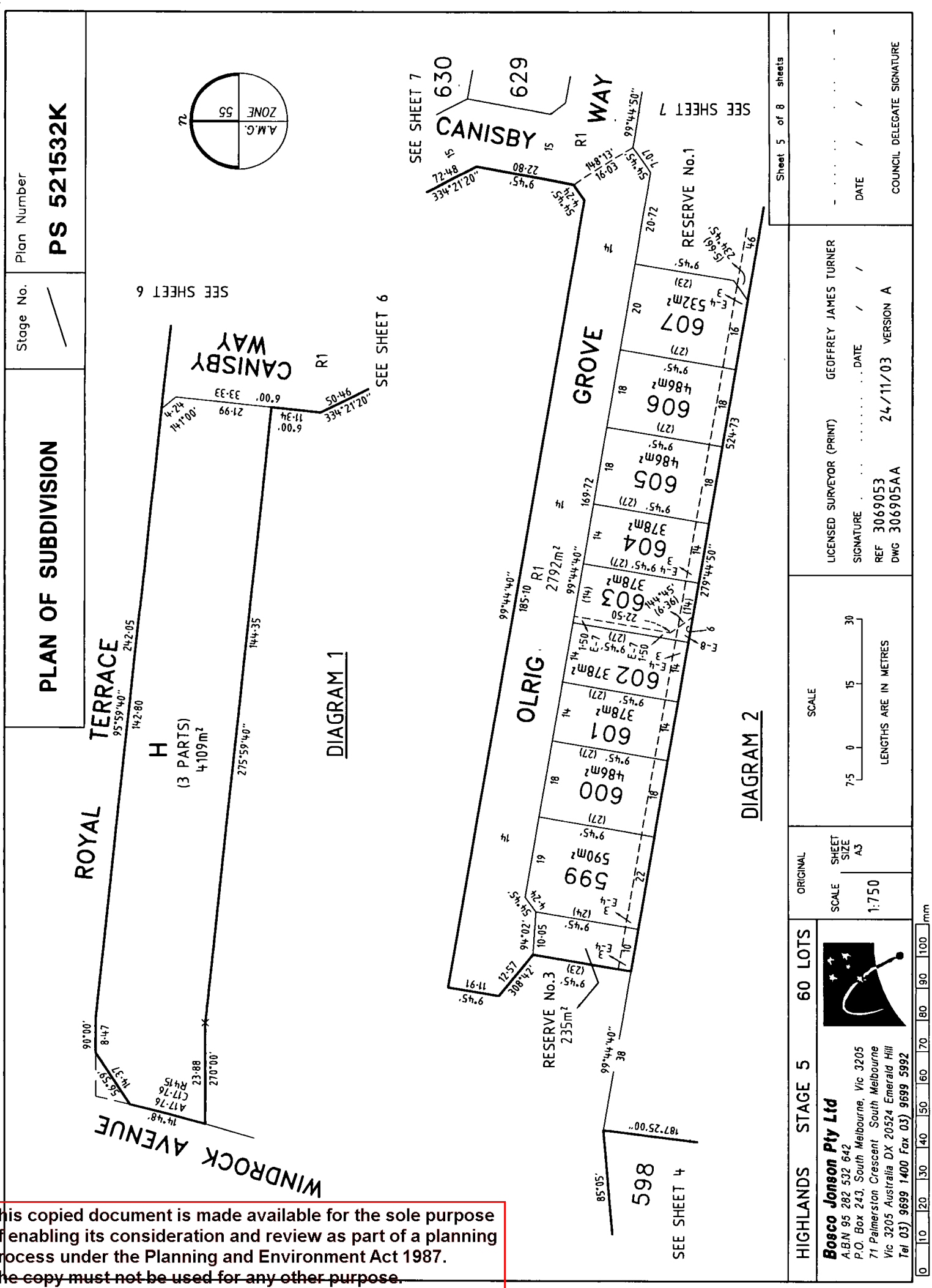

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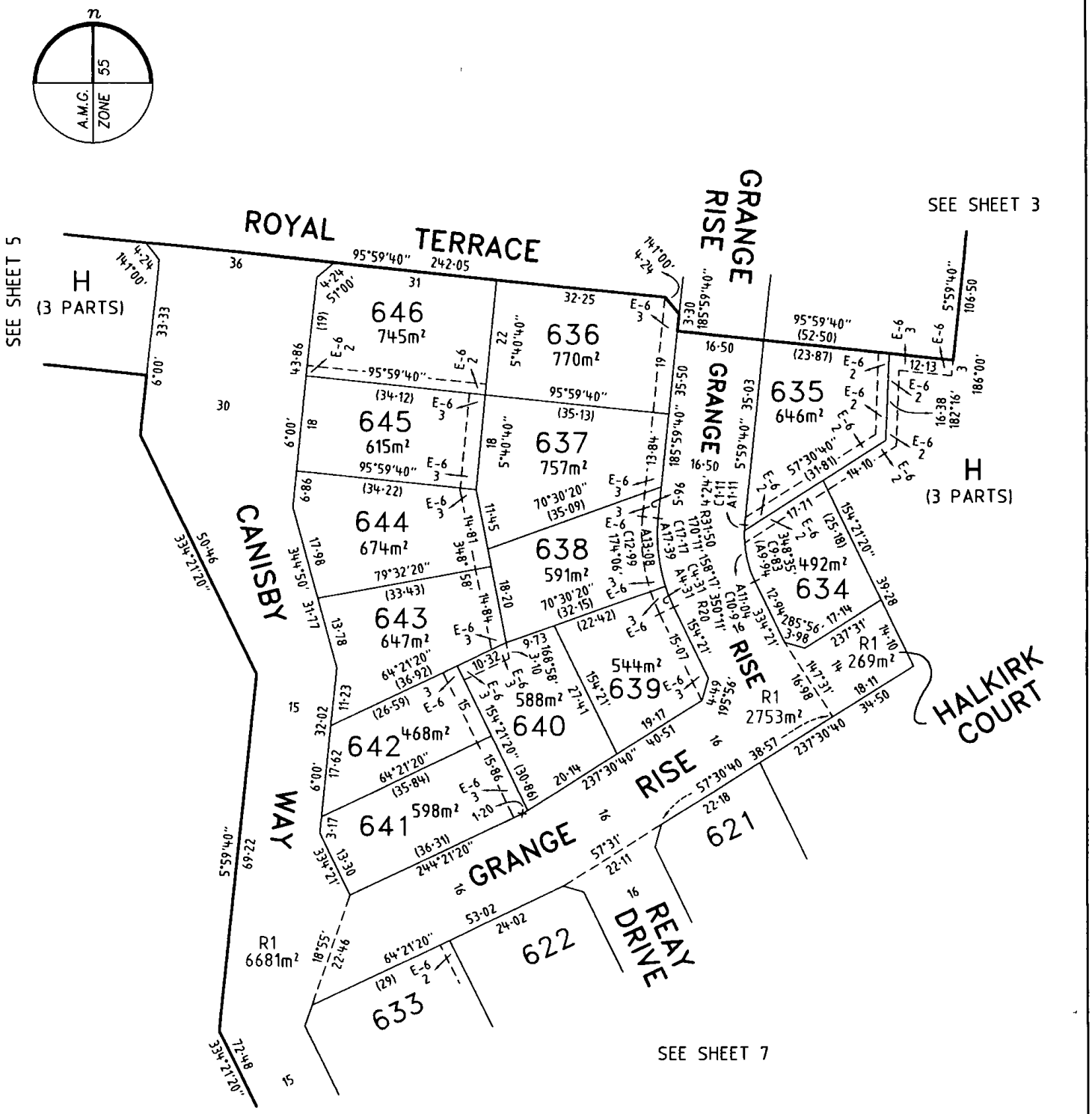

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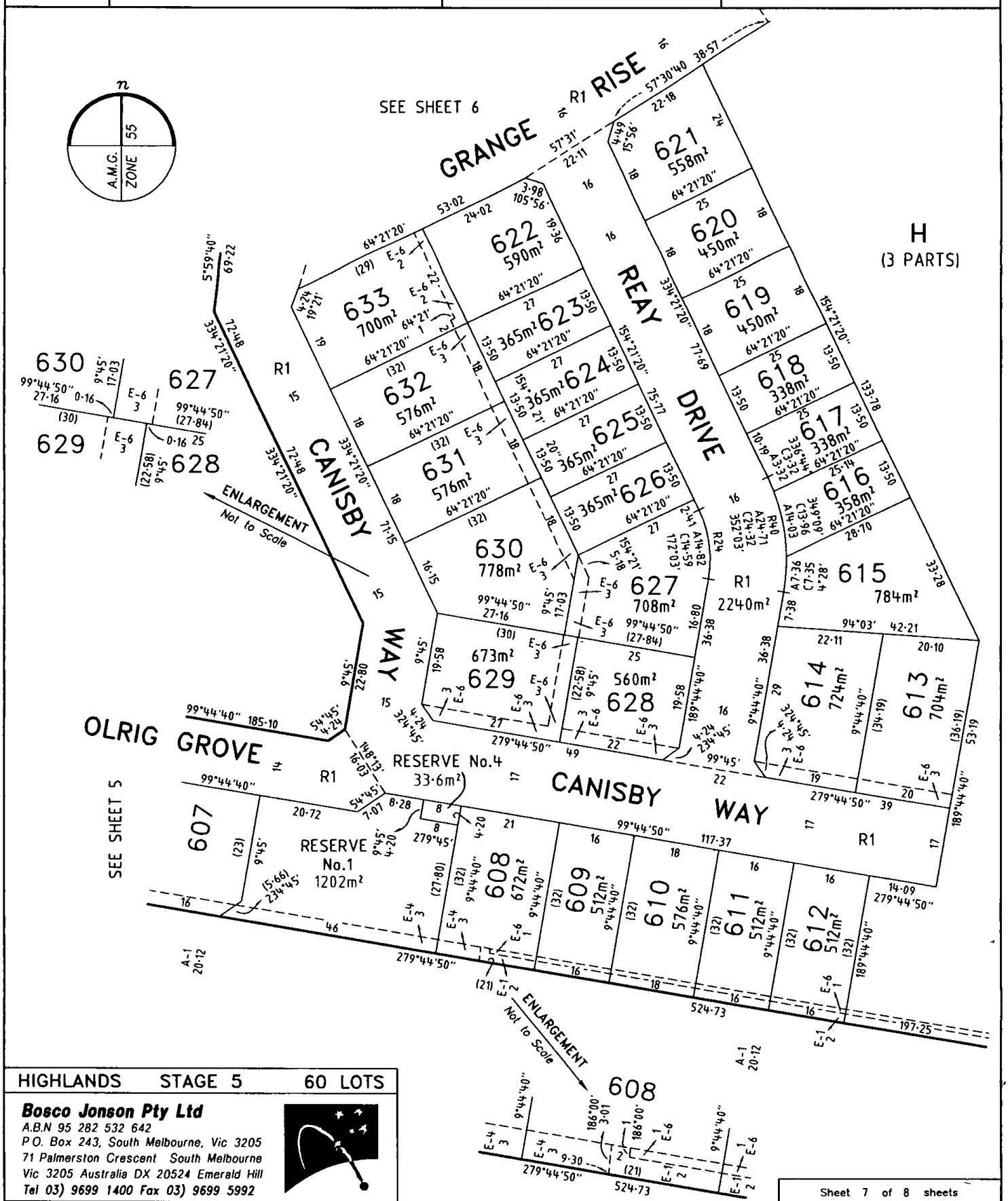

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	PLAN OF SUBDIVISION	Stage No.	Plan Number PS 521532K

CREATION OF RESTRICTION

THE FOLLOWING RESTRICTIONS ARE TO BE CREATED UPON REGISTRATION OF THIS PLAN

1. LAND TO BENEFIT — LOTS 589 TO 646 (BOTH INCLUSIVE) ON THIS PLAN

   LAND TO BE BURDENED — LOTS 589 TO 646 (BOTH INCLUSIVE) ON THIS PLAN

   DESCRIPTION OF RESTRICTION: NOT MORE THAN ONE DWELLING MAY BE CONSTRUCTED ON A LOT OR PART OF A LOT ON THIS PLAN THAT IS BURDENED BY THIS RESTRICTION.

   THIS RESTRICTION WILL EXPIRE ON THE 31ST DECEMBER 2013

2. LAND TO BENEFIT — LOTS 589 TO 646 (BOTH INCLUSIVE) ON THIS PLAN

   LAND TO BE BURDENED — LOTS 589 TO 646 (BOTH INCLUSIVE) ON THIS PLAN

   DESCRIPTION OF RESTRICTION. NO LOT ON THIS PLAN THAT IS BURDENED BY THIS RESTRICTION MAY BE SUBDIVIDED.

   THIS RESTRICTION WILL EXPIRE ON THE 31ST DECEMBER 2013

HIGHLANDS STAGE 5 LOTS

Bosco Jonson Pty Ltd
A.B.N 95 282 532 642
P.O. Box 243, South Melbourne, Vic 3205
71 Palmerston Crescent South Melbourne
Vic 3205 Australia DX 20524 Emerald Hill
Tel 03) 9699 1400 Fax 03) 9699 5992

ORIGINAL | SCALE | SCALE | SHEET SIZE A3 | LENGTHS ARE IN METRES

0 10 20 30 40 50 60 70 80 90 100 mm

LICENSED SURVEYOR (PRINT) GEOFFREY JAMES TURNER
SIGNATURE DATE / /
REF 306905 3
DWG 306905AA 24/11/03 VERSION A

Sheet 8 of 8 sheets

DATE / /
COUNCIL DELEGATE SIGNATURE
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MODIFICATION TABLE

RECORD OF ALL ADDITIONS OR CHANGES TO THE PLAN

PLAN NUMBER

PS521532K

WARNING: THE IMAGE OF THIS DOCUMENT OF THE REGISTER HAS BEEN DIGITALLY AMENDED. NO FURTHER AMENDMENTS ARE TO BE MADE TO THE ORIGINAL DOCUMENT OF THE REGISTER.

AFFECTED LAND/PARCEL	LAND/PARCEL IDENTIFIER CREATED	MODIFICATION	DEALING NUMBER	DATE	EDITION NUMBER	ASSISTANT REGISTRAR OF TITLES
		REMOVAL OF APPURTENANT EASEMENT	PS512697B	7/06/04	2	S.BOBKO

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

VOLUME 12402 FOLIO 251

Security no : 124132585936F
Produced 02/03/2026 01:21 PM

LAND DESCRIPTION

Reserve 1 on Plan of Subdivision 743424Y.
PARENT TITLE Volume 11924 Folio 276
Created by instrument PS743424Y 14/09/2022

REGISTERED PROPRIETOR

Estate Fee Simple
Sole Proprietor
YARRA VALLEY WATER CORPORATION of LUCKNOW STREET MITCHAM VIC 3132
PS743424Y 14/09/2022

ENCUMBRANCES, CAVEATS AND NOTICES

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 PS743424Y FOR FURTHER DETAILS AND BOUNDARIES

ACTIVITY IN THE LAST 125 DAYS

NIL

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

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

Street Address: 650A SUMMERHILL ROAD CRAIGIEBURN VIC 3064

ADMINISTRATIVE NOTICES

NIL

eCT Control 17223H MADDOCKS
Effective from 14/09/2022

DOCUMENT END

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Document Type	**Plan**
Document Identification	**PS743424Y**
Number of Pages (excluding this cover sheet)	**3**
Document Assembled	**02/03/2026 13:21**

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PLAN OF SUBDIVISION
UNDER SECTION 35 OF THE SUBDIVISION ACT 1988

EDITION 1

PS743424Y

LOCATION OF LAND

PARISH: KALKALLO
TOWNSHIP: --
SECTION: --
CROWN ALLOTMENT: 10D & 11 (PART)
CROWN PORTION: --
TITLE REFERENCE: Vol.11924 Fol.276

LAST PLAN REFERENCE: Land in PC378003X

POSTAL ADDRESS: 650 SUMMERHILL ROAD
(at time of subdivision) CRAIGIEBURN 3064

MGA CO-ORDINATES: E: 320 050 ZONE: 55
(of approx centre of land in plan) N: 5 840 750 GDA 94

Council Name: Hume City Council

Council Reference Number: S008137
Planning Permit Reference: Planning permit not required
SPEAR Reference Number: S093394J

This is a plan under section 35 of the Subdivision Act 1988 which does not create any additional lots.
This plan is exempt from Part 3 of the Subdivision Act 1988.

Certification

This plan is certified under section 11 (7) of the Subdivision Act 1988
Date of original certification under section 6: 22/09/2017

Digitally signed by: Antonino Magazzu for Hume City Council on 25/11/2021

VESTING OF ROADS AND/OR RESERVES

Roads and reserves vest in the council/body/person named when the appropriate vesting date is recorded or transfer registered. Only roads and reserves marked thus (%) vest upon registration of this plan.

IDENTIFIER	COUNCIL/BODY/PERSON
Reserve No. 1	Yarra Valley Water Corporation

NOTATIONS

DEPTH LIMITATION: 15.24m - Crown Allotment 10D

SURVEY:
This plan is based on survey. Position of Merri Creek derived from LP200392F.

STAGING:
This is not a staged subdivision.

NOTATIONS

Land acquired by compulsory process:
Reserve No. 1
Land acquired by agreement:
NIL

All the land is to be acquired free from all encumbrances other than any easements specified on this plan.

Dimensions underlined are not the result of this survey
Area of Lot 1 was obtained by deduction from Title.

EASEMENT INFORMATION

LEGEND: A - Appurtenant Easement E - Encumbering Easement R - Encumbering Easement (Road)

Easements marked (-) are existing easements.
Easements marked (+) are created upon registration of this plan.
Easements marked (*) are created when the appropriate vesting date is recorded or transfer registered.
Easements marked (#) are removed when the appropriate vesting date is recorded or transfer registered.

Symbol	Subject Land	Purpose	Width (Metres)	Origin	Land Benefited/In Favour Of
-	E-1	Transmission of Electricity	See Diagram	Inst. E 82641	State Electricity Commission of Victoria

SURVEYORS FILE REF: 20354-SEC35-5 3

ORIGINAL SHEET SIZE: A3

SHEET 1 OF 3

Digitally signed by: Mark James Sommerville, Licensed Surveyor
Surveyor's Plan Version (3), 11/04/2021, SPEAR Ref: S093394J

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TIME: 3.26pm DATE: 14/09/2022
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Assistant Registrar of Titles

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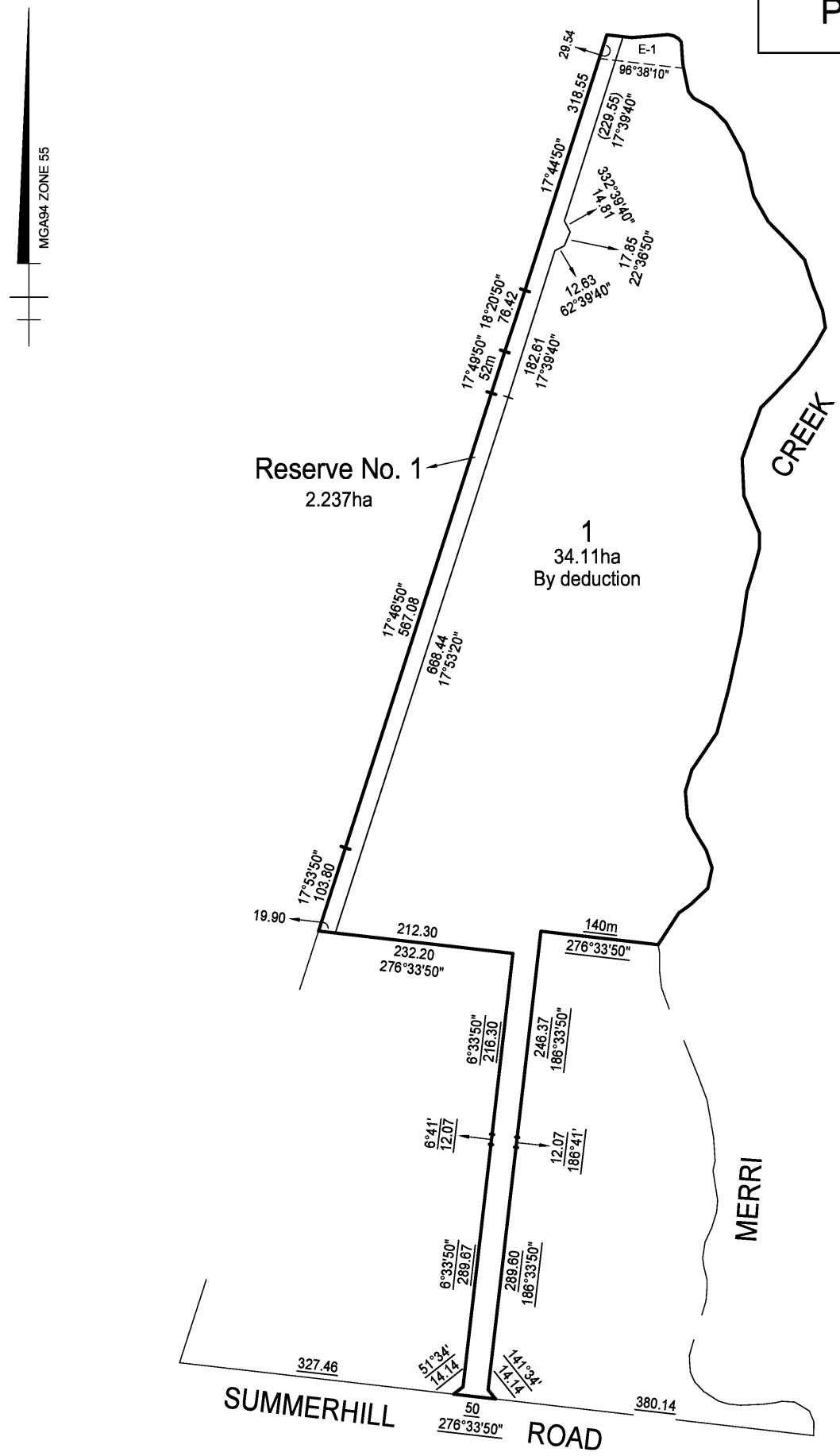
PS743424Y



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SCALE 1:3000 | 50 0 50 100 150 200
LENGTHS ARE IN METRES

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Digitally signed by: Hume City Council, 25/11/2021, SPEAR Ref: S093394J

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PS743424Y

VESTING DATE & TRANSFER REGISTRATION DATES OF ACQUIRED LAND							
LAND AFFECTED	LAND ACQUIRED BY COMPULSORY PROCESS				LAND ACQUIRED BY AGREEMENT	LRS REFERENCE	ASSISTANT REGISTRAR OF TITLES
	VESTING DATE	GOVERNMENT GAZETTE		DATE OF RECORDING OF VESTING	DATE OF REGISTRATION OF TRANSFER		SIGNATURE
		PAGE	YEAR				
Reserve No.1	16/06/16	3 S189	2016	14/09/2022	----------	----------	----------

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SURVEYORS FILE REF.	Ref. 20354-SEC35-5 Ver. 3	ORIGINAL SHEET SIZE: A3	SHEET 3 OF 3
Digitally signed by: Mark James Sommerville, Licensed Surveyor Surveyor's Plan Version (3), 17/04/2021, SPEAR Ref: S093394J		Digitally signed by: Hume City Council, 25/11/2021, SPEAR Ref: S093394J	

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

VOLUME 12402 FOLIO 398

Security no : 124132586131T
Produced 02/03/2026 01:24 PM

LAND DESCRIPTION

Reserve 1 on Plan of Subdivision 743425W.
PARENT TITLE Volume 11924 Folio 272
Created by instrument PS743425W 15/09/2022

REGISTERED PROPRIETOR

Estate Fee Simple
Sole Proprietor
YARRA VALLEY WATER CORPORATION
PS743425W 15/09/2022

ENCUMBRANCES, CAVEATS AND NOTICES

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.

NOTICE Section 45 Melbourne Strategic Assessment (Environment Mitigation Levy) 2020
AT390570P 01/07/2020

DIAGRAM LOCATION

SEE PS743425W FOR FURTHER DETAILS AND BOUNDARIES

ACTIVITY IN THE LAST 125 DAYS

NIL

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

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

Street Address: 720 SUMMERHILL ROAD CRAIGIEBURN VIC 3064

ADMINISTRATIVE NOTICES

NIL

eCT Control 17223H MADDOCKS
Effective from 15/09/2022

DOCUMENT END

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

VOLUME 11924 FOLIO 272

Security no : 124132586218Y
Produced 02/03/2026 01:25 PM

LAND DESCRIPTION

Lot 1 on Plan of Subdivision 743425W.
PARENT TITLES :
Volume 09639 Folio 145 Volume 11869 Folio 888
Created by instrument PC378001C 23/10/2017

REGISTERED PROPRIETOR

Estate Fee Simple
Sole Proprietor
GOLINA HOLDINGS PTY LTD of LEVEL 20 181 WILLIAM STREET MELBOURNE VIC 3000
PC378001C 23/10/2017

ENCUMBRANCES, CAVEATS AND NOTICES

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.

NOTICE Section 45 Melbourne Strategic Assessment (Environment Mitigation Levy) 2020
AT390570P 01/07/2020

DIAGRAM LOCATION

SEE PS743425W FOR FURTHER DETAILS AND BOUNDARIES

ACTIVITY IN THE LAST 125 DAYS

NIL

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

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

Street Address: 650 SUMMERHILL ROAD CRAIGIEBURN VIC 3064

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PLAN OF SUBDIVISION

UNDER SECTION 35 OF THE SUBDIVISION ACT 1988

EDITION 1

PS743425W

LOCATION OF LAND

PARISH:	KALKALLO
TOWNSHIP:	--
SECTION:	--
CROWN ALLOTMENT:	11 (PART)
CROWN PORTION:	--
TITLE REFERENCE:	Vol.11924 Fol.272
LAST PLAN REFERENCE:	Land in PC378001C
POSTAL ADDRESS: (at time of subdivision)	650 SUMMERHILL ROAD CRAIGIEBURN 3064

MGA CO-ORDINATES: (of approx centre of land in plan)

E:	319 780	ZONE:	55
N:	5 840 000	GDA 94	

Council Name: Hume City Council

Council Reference Number: S008136
Planning Permit Reference: Planning permit not required
SPEAR Reference Number: S093395E

This is a plan under section 35 of the Subdivision Act 1988 which does not create any additional lots.
This plan is exempt from Part 3 of the Subdivision Act 1988.

Certification

This plan is certified under section 11 (7) of the Subdivision Act 1988
Date of original certification under section 6: 22/09/2017

Digitally signed by: Antonino Magazzu for Hume City Council on 25/11/2021

VESTING OF ROADS AND/OR RESERVES

Roads and reserves vest in the council/body/person named when the appropriate vesting date is recorded or transfer registered. Only roads and reserves marked thus (%) vest upon registration of this plan.

IDENTIFIER	COUNCIL/BODY/PERSON
Reserve No. 1	Yarra Valley Water Corporation

NOTATIONS

DEPTH LIMITATION: NIL

SURVEY:
This plan is based on survey.

STAGING:
This is not a staged subdivision.

NOTATIONS

Land acquired by compulsory process:
Reserve No. 1
Land acquired by agreement:
NIL

All the land is to be acquired free from all encumbrances

Dimensions underlined are not the result of this survey.

EASEMENT INFORMATION

LEGEND: A - Appurtenant Easement E - Encumbering Easement R - Encumbering Easement (Road)

Easements marked (-) are existing easements.
Easements marked (+) are created upon registration of this plan.
Easements marked (*) are created when the appropriate vesting date is recorded or transfer registered.
Easements marked (#) are removed when the appropriate vesting date is recorded or transfer registered.

Symbol	Subject Land	Purpose	Width (Metres)	Origin	Land Benefited/In Favour Of

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Surveyor's Plan Version (3), 17/04/2021, SPEAR Ref: S093395E

ORIGINAL SHEET SIZE: A3

SHEET 1 OF 3

PLAN REGISTERED
TIME: 11.50am DATE: 15/09/2022
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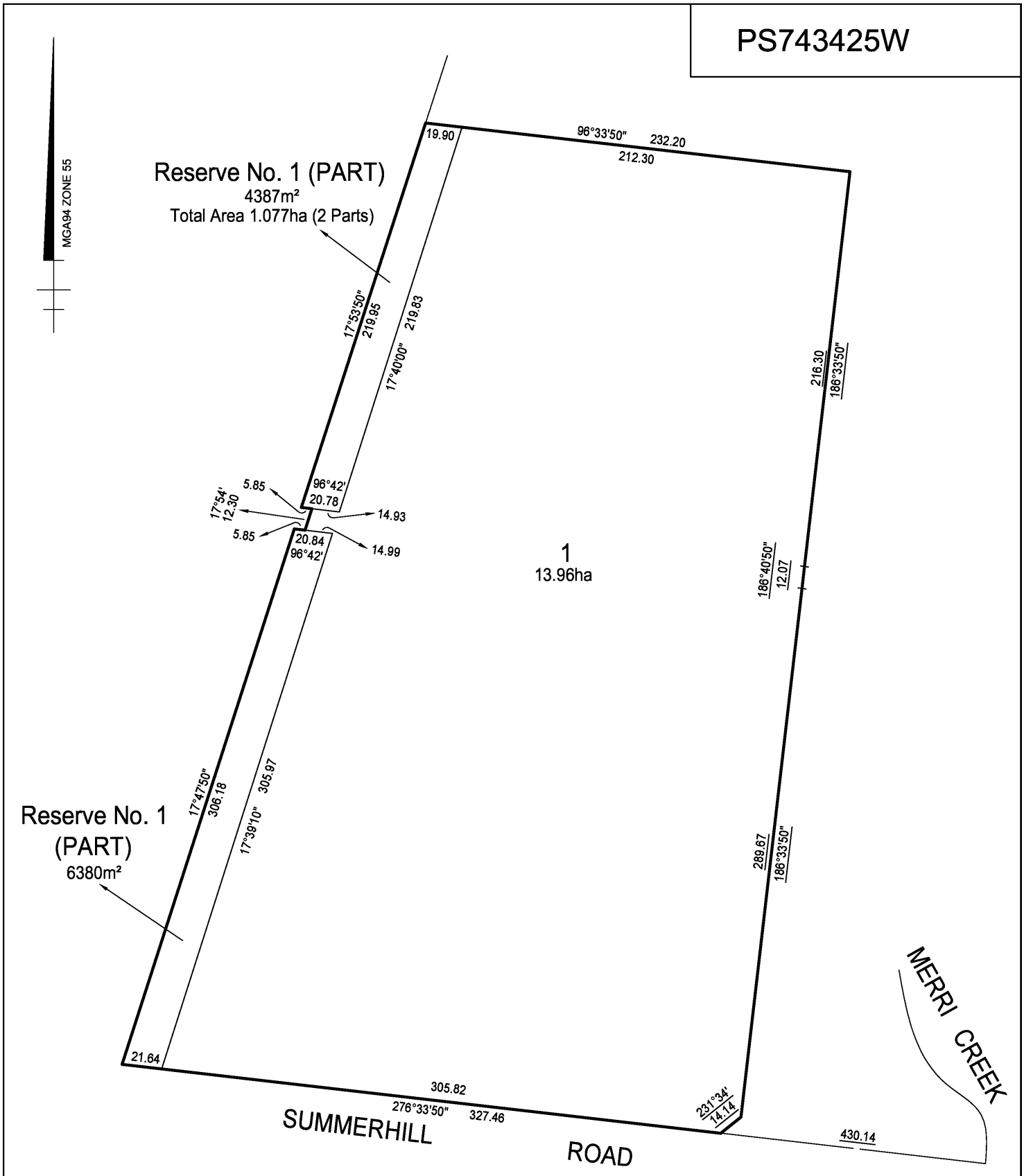
PS743425W



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SCALE 1:2000 | 20 0 20 40 60 80
LENGTHS ARE IN METRES

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17/04/2021, SPEAR Ref: S093395E

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25/11/2021,
SPEAR Ref: S093395E

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PS743425W

VESTING DATE & TRANSFER REGISTRATION DATES OF ACQUIRED LAND							
LAND AFFECTED	LAND ACQUIRED BY COMPULSORY PROCESS				LAND ACQUIRED BY AGREEMENT	LRS REFERENCE	ASSISTANT REGISTRAR OF TITLES
	VESTING DATE	GOVERNMENT GAZETTE		DATE OF RECORDING OF VESTING	DATE OF REGISTRATION OF TRANSFER		SIGNATURE
		PAGE	YEAR				
Reserve No. 1	16/06/16	2 S189	2016	15/09/2022	----------	----------	----------

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SHEET 3 OF 3

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

VOLUME 12403 FOLIO 417

Security no : 124132586298M
Produced 02/03/2026 01:27 PM

LAND DESCRIPTION

Reserve 1 on Plan of Subdivision 743427S.
PARENT TITLE Volume 09643 Folio 105
Created by instrument PS743427S 20/09/2022

REGISTERED PROPRIETOR

Estate Fee Simple
Sole Proprietor
YARRA VALLEY WATER CORPORATION of LUCKNOW STREET MITCHAM VIC 3132
PS743427S 20/09/2022

ENCUMBRANCES, CAVEATS AND NOTICES

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.

NOTICE Section 45 Melbourne Strategic Assessment (Environment Mitigation Levy) 2020
AT390534T 01/07/2020

DIAGRAM LOCATION

SEE PS743427S FOR FURTHER DETAILS AND BOUNDARIES

ACTIVITY IN THE LAST 125 DAYS

NIL

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

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

Street Address: 743 SUMMERHILL ROAD CRAIGIEBURN VIC 3064

ADMINISTRATIVE NOTICES

NIL

eCT Control 17223H MADDOCKS
Effective from 20/09/2022

DOCUMENT END

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

VOLUME 09643 FOLIO 105 Security no : 124130950959E
Produced 22/12/2025 12:09 PM

LAND DESCRIPTION

Lot 1 on Plan of Subdivision 743427S.
PARENT TITLE Volume 08485 Folio 696
Created by instrument LP149923H 14/11/1985

REGISTERED PROPRIETOR

Estate Fee Simple
Sole Proprietor
STEVEN MUSTICA of 40 DAVIDSON ST RESERVOIR
R568560D 30/09/1991

ENCUMBRANCES, CAVEATS AND NOTICES

MORTGAGE AZ603711Q 17/09/2025
COMMONWEALTH BANK OF AUSTRALIA

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.

NOTICE Section 45 Melbourne Strategic Assessment (Environment Mitigation Levy) 2020
AT390534T 01/07/2020

DIAGRAM LOCATION

SEE PS743427S FOR FURTHER DETAILS AND BOUNDARIES

ACTIVITY IN THE LAST 125 DAYS

NUMBER		STATUS	DATE
AZ603710S (E)	DISCHARGE OF MORTGAGE	Registered	17/09/2025
AZ603711Q (E)	MORTGAGE	Registered	17/09/2025

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

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

Street Address: 715 SUMMERHILL ROAD CRAIGIEBURN VIC 3064

ADMINISTRATIVE NOTICES

NIL

eCT Control 20381U COMMONWEALTH BANK OF AUSTRALIA
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Document Identification	**PS743427S**
Number of Pages (excluding this cover sheet)	**3**
Document Assembled	**22/12/2025 12:09**

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PLAN OF SUBDIVISION

UNDER SECTION 35 OF THE SUBDIVISION ACT 1988

EDITION 1

PS743427S

LOCATION OF LAND

PARISH:	KALKALLO
TOWNSHIP:	--
SECTION:	--
CROWN ALLOTMENT:	--
CROWN PORTION:	2 (PART)
TITLE REFERENCE:	Vol.9643 Fol.105
LAST PLAN REFERENCE:	Lot 1 on LP149923H
POSTAL ADDRESS: (at time of subdivision)	715 SUMMERHILL ROAD DONNYBROOK 3064

MGA CO-ORDINATES: (of approx centre of land in plan)

E:	319 620	ZONE:	55
N:	5 839 500	GDA 94	

Council Name: Hume City Council

Council Reference Number: S008135
Planning Permit Reference: Planning permit not required
SPEAR Reference Number: S093396B

This is a plan under section 35 of the Subdivision Act 1988 which does not create any additional lots.
This plan is exempt from Part 3 of the Subdivision Act 1988.

Certification

This plan is certified under section 11 (7) of the Subdivision Act 1988
Date of original certification under section 6: 22/09/2017

Digitally signed by: Katrina Toogood for Hume City Council on 24/11/2021

VESTING OF ROADS AND/OR RESERVES

Roads and reserves vest in the council/body/person named when the appropriate vesting date is recorded or transfer registered. Only roads and reserves marked thus (%) vest upon registration of this plan.

IDENTIFIER	COUNCIL/BODY/PERSON
Reserve No. 1	Yarra Valley Water Corporation

NOTATIONS

DEPTH LIMITATION: Does Not Apply

SURVEY:
This plan is based on survey.

STAGING:
This is not a staged subdivision.

NOTATIONS

Land acquired by compulsory process:
Reserve No. 1
Land acquired by agreement:
NIL

All the land is to be acquired free from all encumbrances.

Dimensions underlined are not the result of this survey
Area of Lot 1 was obtained by deduction from Title.

EASEMENT INFORMATION

LEGEND: A - Appurtenant Easement E - Encumbering Easement R - Encumbering Easement (Road)

Easements marked (-) are existing easements.
Easements marked (+) are created upon registration of this plan.
Easements marked (*) are created when the appropriate vesting date is recorded or transfer registered.
Easements marked (#) are removed when the appropriate vesting date is recorded or transfer registered.

Symbol	Subject Land	Purpose	Width (Metres)	Origin	Land Benefited/In Favour Of

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8/ 270 Ferntree Gully Road, Notting Hill, Victoria, 3168
Tel: 61 3 9501 2800 | www.taylorsdevelop.au

SURVEYORS FILE REF: Ref. 20354-SEC35-8 Ver. 3

Digitally signed by: Mark James Sommerville, Licensed Surveyor
Surveyor's Plan Version (3), 22/04/2021, SPEAR Ref: S093396B

ORIGINAL SHEET SIZE: A3

SHEET 1 OF 3

PLAN REGISTERED
TIME: 5:20pm
DATE: 20/9/2022

Roger Mellor
Assistant Registrar of Titles

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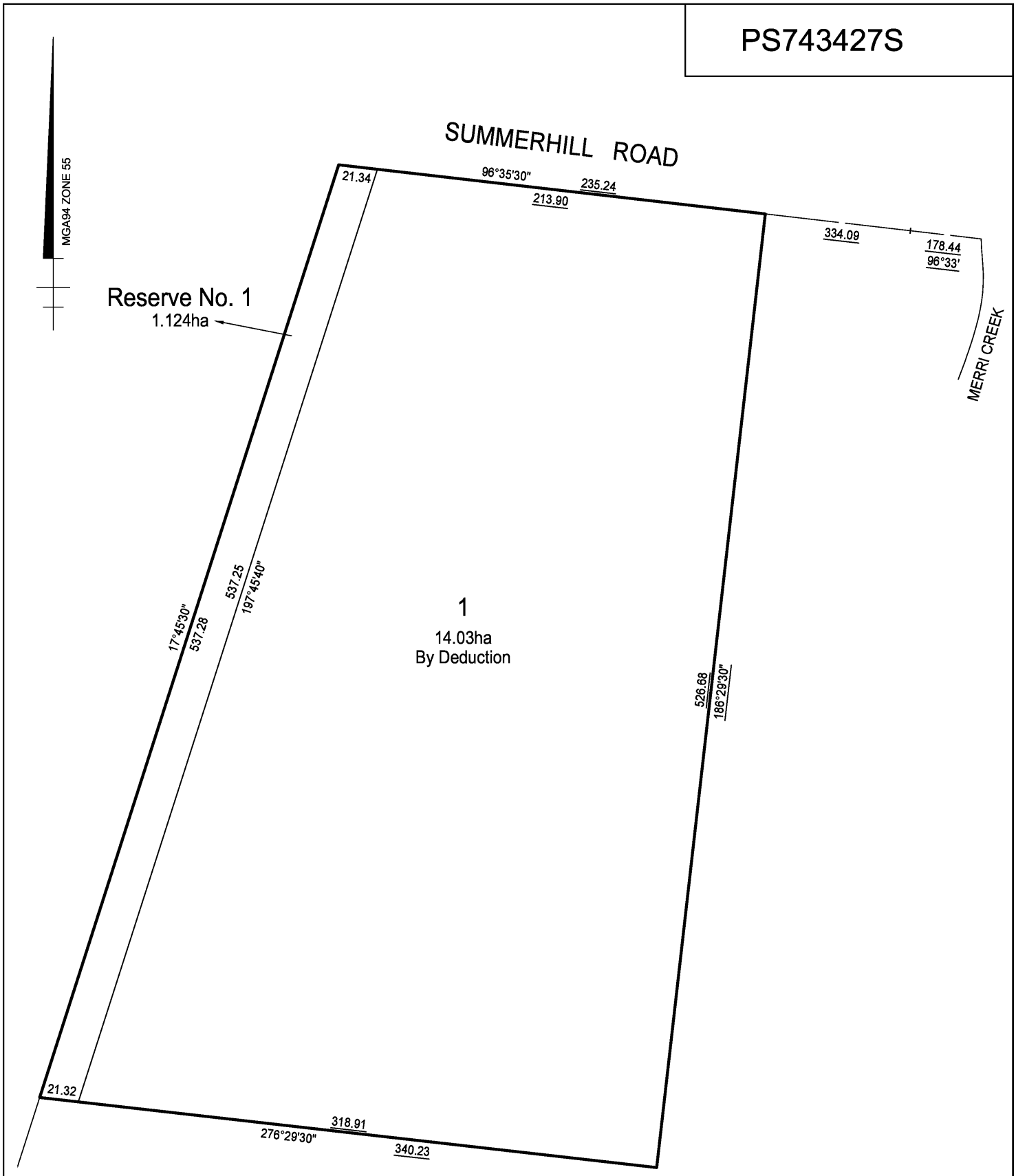
PS743427S



SCALE 1:2000 — 0 20 40 60 80 LENGTHS ARE IN METRES

ORIGINAL SHEET SIZE: A3

Ref. 20354-SEC35-8

SHEET 2

Digitally signed by: Mark James Sommerville, Licensed Surveyor's Plan Version (3), 22/04/2021, SPEAR Ref: S093396B

Digitally signed by: Hume City Council, 24/11/2021, SPEAR Ref: S093396B

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PS743427S

VESTING DATE & TRANSFER REGISTRATION DATES OF ACQUIRED LAND							
LAND AFFECTED	LAND ACQUIRED BY COMPULSORY PROCESS				LAND ACQUIRED BY AGREEMENT	LRS REFERENCE	ASSISTANT REGISTRAR OF TITLES
	VESTING DATE	GOVERNMENT GAZETTE		DATE OF RECORDING OF VESTING	DATE OF REGISTRATION OF TRANSFER		SIGNATURE
		PAGE	YEAR				
Reserve No.1	16/06/16	4 S189	2016		———	———	———

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Tel: 61 8 9501 2800 | www.taylorsdevelop.au

SURVEYORS FILE REF: Ref. 20354-SEC35-8 Ver. 3

ORIGINAL SHEET SIZE: A3

SHEET 3 OF 3

Digitally signed by: Mark James Sommerville, Licensed Surveyor
Surveyor's Plan Version (3), 22/04/2021, SPEAR Ref: S093396B

Digitally signed by: Hume City Council, 24/11/2021, SPEAR Ref: S093396B

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

VOLUME 08311 FOLIO 706

Security no : 124132586470A
Produced 02/03/2026 01:30 PM

LAND DESCRIPTION

Lot 1 on Title Plan 251903Q.
PARENT TITLE Volume 08038 Folio 179
Created by instrument B126775 20/12/1960

REGISTERED PROPRIETOR

Estate Fee Simple
Sole Proprietor
VICTORIAN RAIL TRACK of LEVEL 8 1010 LA TROBE STREET DOCKLANDS VIC 3008
AN243970X 04/11/2016

ENCUMBRANCES, CAVEATS AND NOTICES

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.

NOTICE Section 45 Melbourne Strategic Assessment (Environment Mitigation Levy) 2020
AT390534T 01/07/2020

DIAGRAM LOCATION

SEE TP251903Q FOR FURTHER DETAILS AND BOUNDARIES

ACTIVITY IN THE LAST 125 DAYS

NIL

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

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

Street Address: 794-798 CRAIGIEBURN ROAD EAST CRAIGIEBURN VIC 3064

ADMINISTRATIVE NOTICES

NIL

eCT Control 14410A VICTORIAN RAIL TRACK
Effective from 04/11/2016

DOCUMENT END

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Document Identification	**TP251903Q**
Number of Pages (excluding this cover sheet)	**1**
Document Assembled	**02/03/2026 13:30**

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TITLE PLAN		EDITION 1	TP 251903Q

Location of Land

Parish: KALKALLO
Township:
Section:
Crown Allotment:
Crown Portion:

Last Plan Reference LP 4646
Derived From: VOL 8311 FOL 706
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 VICTORIA, FOR TITLE DIAGRAM PURPOSES AS PART OF THE LAND TITLES AUTOMATION PROJECT
COMPILED: 17/12/1999
VERIFIED: GB

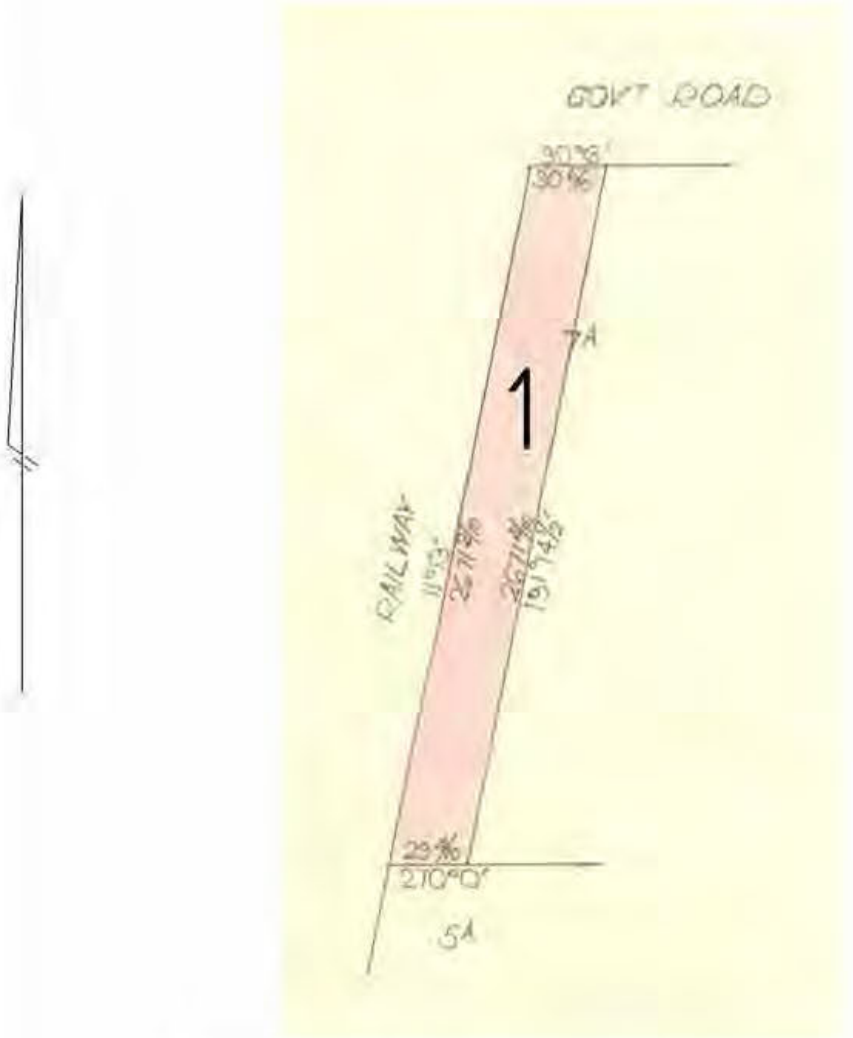

TABLE OF PARCEL IDENTIFIERS
WARNING: Where multiple parcels are referred to or shown on this Title Plan this does not imply correspondence between these parcels and Section 8A of the Sale of Land Act 1962
PARCEL 1 = LOT 7A (PT) ON LP 4646

LENGTHS ARE IN LINKS

Sheet 1 of 1 sheets

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

VOLUME 12507 FOLIO 664

Security no : 124132586874L
Produced 02/03/2026 01:37 PM

LAND DESCRIPTION

Lot 1 on Plan of Subdivision 743428Q.
PARENT TITLE Volume 11313 Folio 375
Created by instrument AX348605B 12/10/2023

REGISTERED PROPRIETOR

Estate Fee Simple
Sole Proprietor
LANDREAM CRAIGIEBURN PTY LTD of LEVEL 12 41 EXHIBITION STREET MELBOURNE VIC 3000
AX736514R 15/02/2024

ENCUMBRANCES, CAVEATS AND NOTICES

MORTGAGE AX736515P 15/02/2024
MAXCAP SECURITY PTY LTD

MORTGAGE AX987061A 10/05/2024
MAXCAP SECURITY PTY LTD

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.

NOTICE Section 45 Melbourne Strategic Assessment (Environment Mitigation Levy) 2020
AT390570P 01/07/2020

DIAGRAM LOCATION

SEE PS743428Q FOR FURTHER DETAILS AND BOUNDARIES

ACTIVITY IN THE LAST 125 DAYS

NIL

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

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

Street Address: 752A CRAIGIEBURN ROAD EAST CRAIGIEBURN VIC 3064

ADMINISTRATIVE NOTICES

NIL

eCT Control 19436D KING & WOOD MALLESONS
Effective from 10/05/2024

DOCUMENT END

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

VOLUME 12507 FOLIO 664

Security no : 124132586874L
Produced 02/03/2026 01:37 PM

LAND DESCRIPTION

Lot 1 on Plan of Subdivision 743428Q.
PARENT TITLE Volume 11313 Folio 375
Created by instrument AX348605B 12/10/2023

REGISTERED PROPRIETOR

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Sole Proprietor
LANDREAM CRAIGIEBURN PTY LTD of LEVEL 12 41 EXHIBITION STREET MELBOURNE VIC 3000
AX736514R 15/02/2024

ENCUMBRANCES, CAVEATS AND NOTICES

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MAXCAP SECURITY PTY LTD

MORTGAGE AX987061A 10/05/2024
MAXCAP SECURITY PTY LTD

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AT390570P 01/07/2020

DIAGRAM LOCATION

SEE PS743428Q FOR FURTHER DETAILS AND BOUNDARIES

ACTIVITY IN THE LAST 125 DAYS

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

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

Street Address: 752A CRAIGIEBURN ROAD EAST CRAIGIEBURN VIC 3064

ADMINISTRATIVE NOTICES

NIL

eCT Control 19436D KING & WOOD MALLESONS
Effective from 10/05/2024

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PLAN OF SUBDIVISION

UNDER SECTION 35 OF THE SUBDIVISION ACT 1988

EDITION 1

PS743428Q

LOCATION OF LAND

PARISH: KALKALLO

CROWN PORTION: 2 (PART)

PARISH: YUROKE

CROWN PORTION: 24 (PART)

TITLE REFERENCE: Vol.11313 Fol.375

LAST PLAN REFERENCE: Lot 1 on PS518226L

POSTAL ADDRESS: 750 CRAIGIEBURN ROAD EAST
(at time of subdivision) CRAIGIEBURN 3064

MGA CO-ORDINATES: E: 319 400 ZONE: 55
(of approx centre of land in plan) N: 5 838 300 GDA 94

Council Name: Hume City Council

Council Reference Number: S008134
Planning Permit Reference: planning permit not required
SPEAR Reference Number: S093398S

This is a plan under section 35 of the Subdivision Act 1988 which does not create any additional lots.
This plan is exempt from Part 3 of the Subdivision Act 1988.

Certification

This plan is certified under section 11 (7) of the Subdivision Act 1988
Date of original certification under section 6: 22/09/2017

Digitally signed by: Patrick Mora for Hume City Council on 12/04/2018

VESTING OF ROADS AND/OR RESERVES

IDENTIFIER	COUNCIL/BODY/PERSON
NIL	NIL

NOTATIONS

DEPTH LIMITATION: Does Not Apply

SURVEY:
This plan is based on survey.

STAGING:
This is not a staged subdivision.

NOTATIONS

Land acquired by compulsory process:
Lot A.
Land acquired by agreement:
NIL

All the land is to be acquired free from all encumbrances, except for E-1 shown on this plan.

Dimensions underlined are not the result of this survey
Area of Lot 1 was obtained by deduction from Title.

EASEMENT INFORMATION

LEGEND: A - Appurtenant Easement E - Encumbering Easement R - Encumbering Easement (Road)

Easements marked (–) are existing easements.
Easements marked (+) are created upon registration of this plan.
Easements marked (*) are created when the appropriate vesting date is recorded or transfer registered.
Easements marked (#) are removed when the appropriate vesting date is recorded or transfer registered.

Symbol	Subject Land	Purpose	Width (Metres)	Origin	Land Benefited/In Favour Of
+	E-1	Carriageway	See Diagram	This Plan	Lot 1 on This Plan

TAYLORS
Urban Development | Built Environments | Infrastructure
8 / 270 Ferntree Gully Road, Notting Hill, Victoria, 3168
Telephone (03) 8526 0800 (Melbourne Metropolitan Area)

SURVEYOR'S PLAN VERSION 3

Digitally signed by: Mark James Sommerville (Taylors Development Strategists Pty Ltd), Surveyor's Plan Version (3), 25/03/2018, SPEAR Ref: S093398S

Ref/Ver: 20354-SEC35-9 3

ORIGINAL SHEET SIZE: A3

SHEET 1 OF 3

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TIME:4:06 pm DATE: 03/07/2018 H.L.

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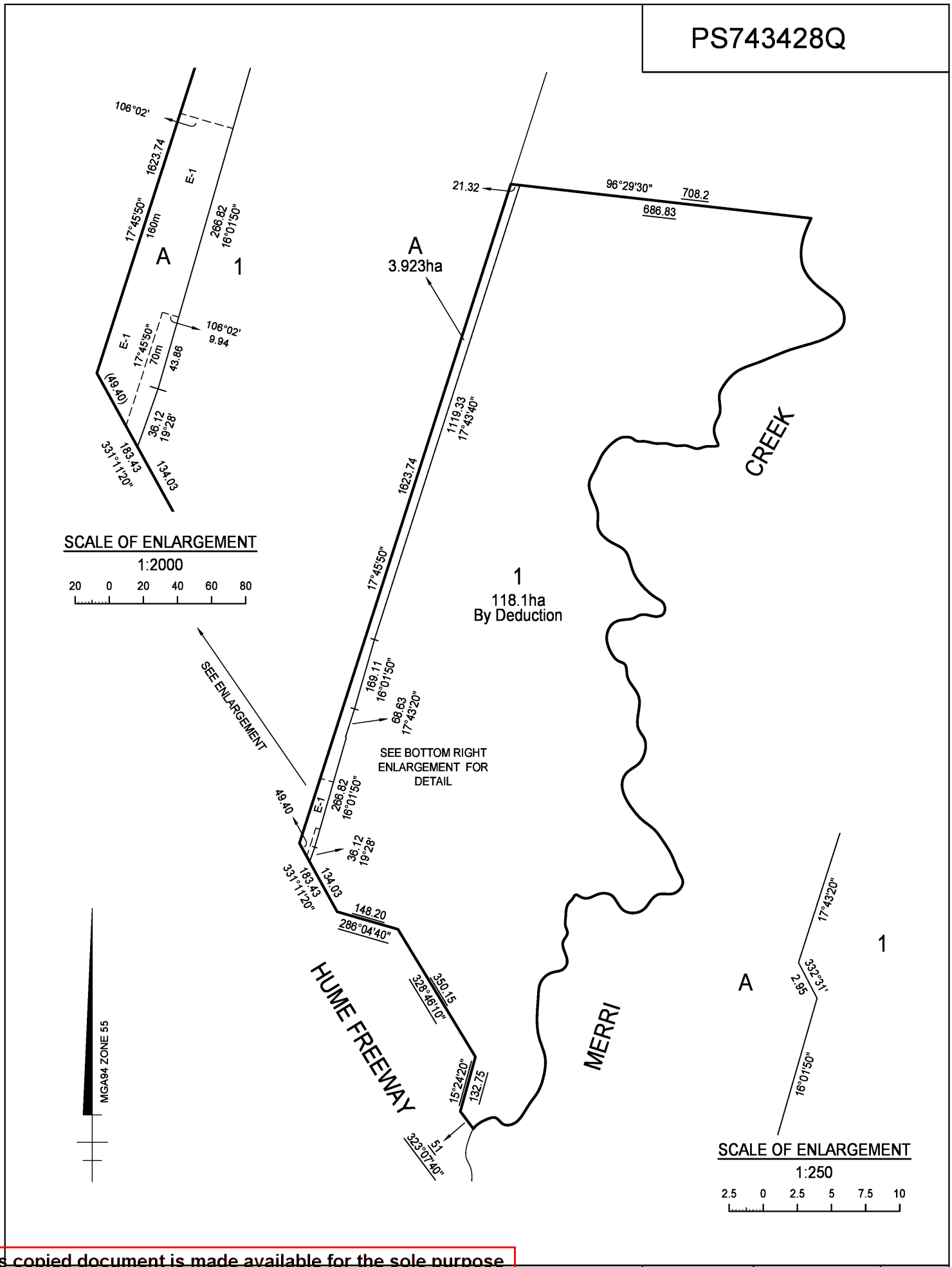
PS743428Q



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SCALE 1:8000	80 0 80 160 240 320 LENGTHS ARE IN METRES	ORIGINAL SHEET SIZE: A3	Ref. 20354-SEC35-9	SHEET 2
	Digitally signed by: Mark James Sommerville (Taylors Development Strategists Pty Ltd), Surveyor's Plan Version (3), 28/03/2018, SPEAR Ref: S093398S	Digitally signed by: Hume City Council, 12/04/2018, SPEAR Ref: S093398S		

PS743428Q

VESTING DATE & TRANSFER REGISTRATION DATES OF ACQUIRED LAND							
LAND AFFECTED	LAND ACQUIRED BY COMPULSORY PROCESS				LAND ACQUIRED BY AGREEMENT	LRS REFERENCE	ASSISTANT REGISTRAR OF TITLES
	VESTING DATE	GOVERNMENT GAZETTE		DATE OF RECORDING OF VESTING	DATE OF REGISTRATION OF TRANSFER		SIGNATURE
		PAGE	YEAR				
LOT A	16/06/16	5 S189	2016	03/07/2018	----------	----------	----------

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Digitally signed by: Mark James Sommerville (Taylors Development Strategists Pty Ltd), Surveyor's Plan Version (3), 28/03/2018, SPEAR Ref: S093398S		Digitally signed by: Hume City Council, 12/04/2018, SPEAR Ref: S093398S	

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

VOLUME 11997 FOLIO 377

Security no : 124132588084V
Produced 02/03/2026 01:58 PM

LAND DESCRIPTION

Lot A on Plan of Subdivision 743429N.
PARENT TITLE Volume 11313 Folio 376
Created by instrument PS743429N 03/07/2018

REGISTERED PROPRIETOR

Estate Fee Simple
Sole Proprietor
YARRA VALLEY WATER of 25 LUCKNOW STREET MITCHAM VIC 3132
PS743429N 03/07/2018

ENCUMBRANCES, CAVEATS AND NOTICES

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.

NOTICE Section 45 Melbourne Strategic Assessment (Environment Mitigation Levy) 2020
AT390578W 01/07/2020

DIAGRAM LOCATION

SEE PS743429N FOR FURTHER DETAILS AND BOUNDARIES

ACTIVITY IN THE LAST 125 DAYS

NIL

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

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

Street Address: 752A CRAIGIEBURN ROAD EAST CRAIGIEBURN VIC 3064

DOCUMENT END

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PLAN OF SUBDIVISION

UNDER SECTION 35 OF THE SUBDIVISION ACT 1988

EDITION 1

PS743429N

LOCATION OF LAND

PARISH:	YUROKE
TOWNSHIP:	--
SECTION:	--
CROWN ALLOTMENT:	--
CROWN PORTION:	24 (PART)
TITLE REFERENCE:	Vol.11313 Fol.376
LAST PLAN REFERENCE:	Lot 1 on PS738251J
POSTAL ADDRESS: (at time of subdivision)	750 Craigieburn Road East CRAIGIEBURN 3064
MGA CO-ORDINATES: (of approx centre of land in plan)	E: 318 930 ZONE: 55 N: 5836 920 GDA 94

Council Name: Hume City Council

Council Reference Number: S008133
Planning Permit Reference: planning permit not required
SPEAR Reference Number: S093401B

This is a plan under section 35 of the Subdivision Act 1988 which does not create any additional lots.
This plan is exempt from Part 3 of the Subdivision Act 1988.

Certification

This plan is certified under section 11 (7) of the Subdivision Act 1988
Date of original certification under section 6: 22/09/2017

Digitally signed by: Patrick Mora for Hume City Council on 12/04/2018

VESTING OF ROADS AND/OR RESERVES

IDENTIFIER	COUNCIL/BODY/PERSON
NIL	NIL

NOTATIONS

DEPTH LIMITATION: Does Not Apply

SURVEY:
This plan is based on survey.

STAGING:
This is not a staged subdivision.

NOTATIONS

Land acquired by compulsory process:
Lot A.
Land acquired by agreement:
NIL

All the land is to be acquired free from all encumbrances, except for E-1 shown on this plan.

Dimensions underlined are not the result of this survey
Area of Lot 1 was obtained by deduction from Title.

EASEMENT INFORMATION

LEGEND: A - Appurtenant Easement E - Encumbering Easement R - Encumbering Easement (Road)

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Easements marked (+) are created upon registration of this plan.
Easements marked (*) are created when the appropriate vesting date is recorded or transfer registered.
Easements marked (#) are removed when the appropriate vesting date is recorded or transfer registered.

Symbol	Subject Land	Purpose	Width (Metres)	Origin	Land Benefited/In Favour Of
+	E-1	Carriageway	See Diagram	This Plan	Lot 1 on This Plan

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Tel: 03 8951 2800 | www.taylorsdevelopment.com.au

SURVEYORS FILE REF: Ref. 20354-SEC35-10 Ver. 4

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SHEET 1 OF 3

PLAN REGISTERED
TIME:4:26 pm DATE: 03/07/2018 H.L.
Assistant Registrar of Titles

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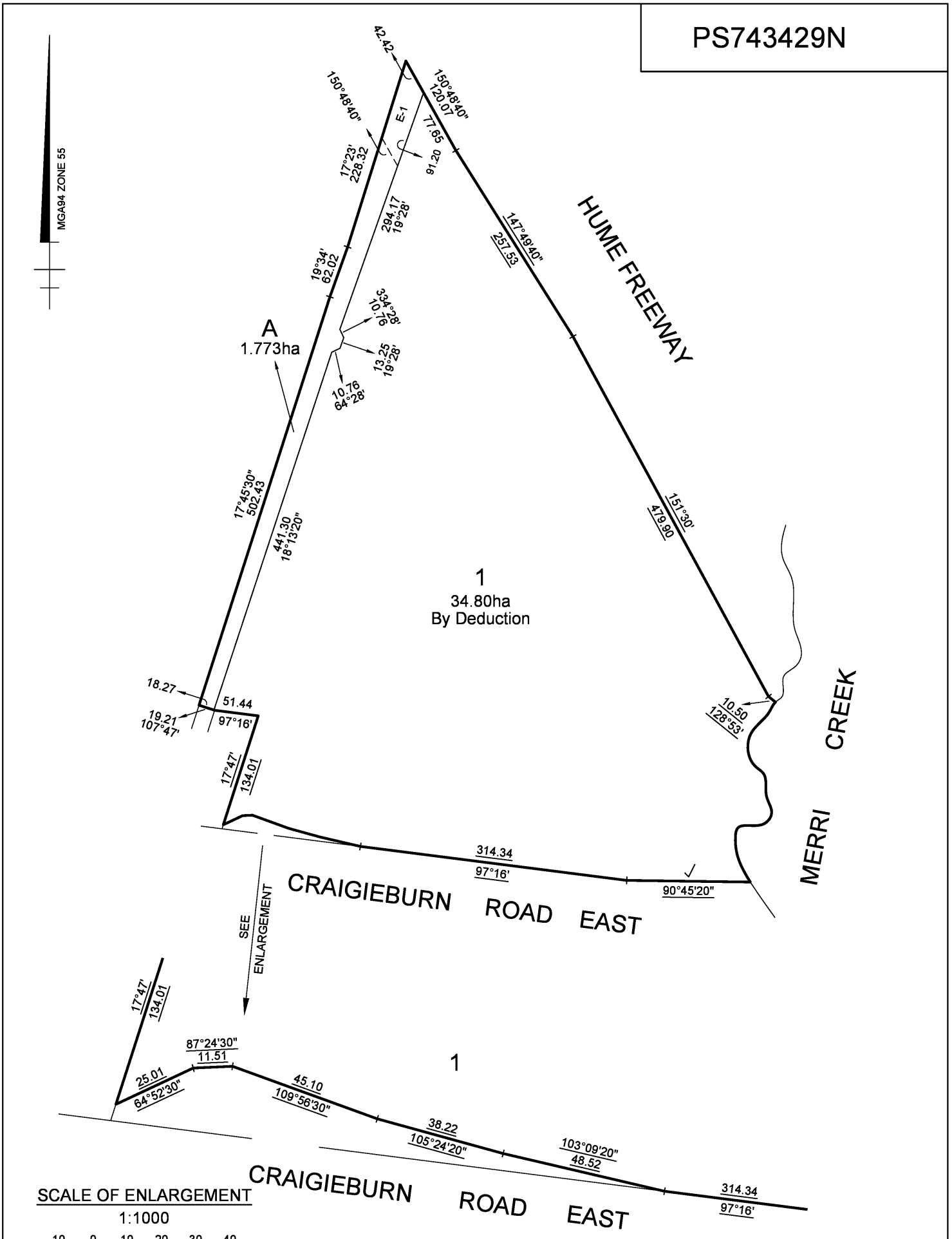
PS743429N



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Digitally signed by: Mark James Sommerville (Taylors Development Strategists Pty Ltd), Surveyor's Plan Version (4), 25/03/2018, SPEAR Ref: S093401B	Digitally signed by: Hume City Council, 12/04/2018, SPEAR Ref: S093401B		

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PS743429N

VESTING DATE & TRANSFER REGISTRATION DATES OF ACQUIRED LAND

LAND AFFECTED	LAND ACQUIRED BY COMPULSORY PROCESS				LAND ACQUIRED BY AGREEMENT	LRS REFERENCE	ASSISTANT REGISTRAR OF TITLES
	VESTING DATE	GOVERNMENT GAZETTE		DATE OF RECORDING OF VESTING	DATE OF REGISTRATION OF TRANSFER		
		PAGE	YEAR				SIGNATURE
LOT A	16/06/2016	6 S189	2016	03/07/2018	———	———	———

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

VOLUME 12269 FOLIO 479

Security no : 124132587057M
Produced 02/03/2026 01:40 PM

LAND DESCRIPTION

Lot 1 on Plan of Subdivision 222180X.
PARENT TITLE Volume 10040 Folio 431
Created by instrument AT756036Y 09/11/2020

REGISTERED PROPRIETOR

Estate Fee Simple
Sole Proprietor
YARRA VALLEY WATER CORPORATION of LUCKNOW STREET MITCHAM VIC 3132
AT756036Y 09/11/2020

ENCUMBRANCES, CAVEATS AND NOTICES

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 or imaged folio set out under DIAGRAM LOCATION below.

AGREEMENT Section 173 Planning and Environment Act 1987
Y008508Y

DIAGRAM LOCATION

SEE LP222180X FOR FURTHER DETAILS AND BOUNDARIES

ACTIVITY IN THE LAST 125 DAYS

NIL

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

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

Street Address: 790 CRAIGIEBURN ROAD EAST CRAIGIEBURN VIC 3064

ADMINISTRATIVE NOTICES

NIL

eCT Control 12768P YARRA VALLEY WATER CORPORATION
Effective from 11/12/2020

DOCUMENT END

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Number of Pages (excluding this cover sheet)	**1**
Document Assembled	**02/03/2026 13:40**

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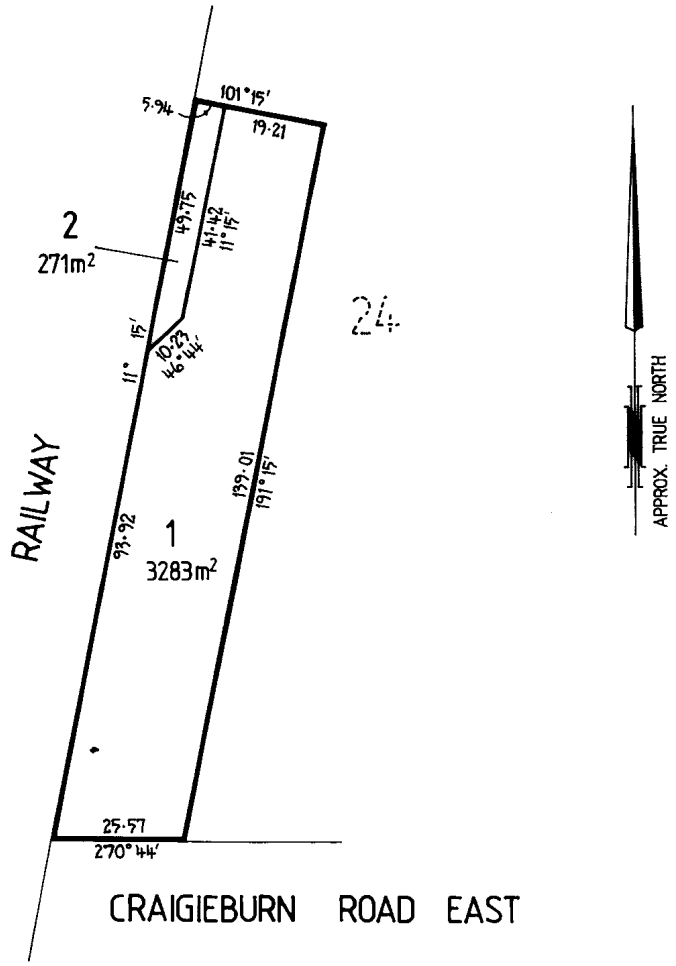

OFFICE USE ONLY

LP222180X
EDITION 1

NOTATIONS

THE SUBJECT LAND IS THE WHOLE OF BOOK 476 MEM.302 CURRENTLY BEING BROUGHT UNDER THE OPERATION OF THE TRANSFER OF LAND ACT.

TO BE COMPLETED WHERE APPLICABLE
THIS SURVEY HAS BEEN CONNECTED TO PERMANENT MARKS NOS:
IN PROCLAIMED SURVEY AREA NO.

THE LAND TO BE SUBDIVIDED IS SHOWN ENCLOSED BY THICK LINES
TITLE REF: SEE ABOVE NOTATIONS
LAST PLAN REF:

PLAN OF SUBDIVISION

COUNTY OF BOURKE
PARISH OF YUROKE
CROWN PORTION 24 (PART)

NUMBER OF SHEETS IN PLAN :1
NUMBER OF THIS SHEET :1

SCALE 0 10 20 30 40 50
LENGTHS ARE IN METRES

ORIGINAL SCALE 1:1000
ORIGINAL SHEET SIZE A3

OFFICE USE ONLY
LP 222180X
VICTORIA

CERTIFICATION BY SURVEYOR

I, MICHAEL A. BLACKBURN
589 COLLINS STREET, MELBOURNE
CERTIFY THAT THIS PLAN HAS BEEN PREPARED FROM A SURVEY MADE UNDER MY IMMEDIATE DIRECTION AND SUPERVISION, IN ACCORDANCE WITH THE SURVEYORS ACT 1978 AND COMPLETED ON 22/3/'89 THAT THIS PLAN IS ACCURATE AND CORRECTLY REPRESENTS THE ADOPTED BOUNDARIES AND THE CLASSIFICATION OF THE SURVEY IS D3

DATE 23/3/1989

MAB
LICENSED SURVEYOR,
SURVEYORS ACT 1978.

AMENDMENTS

V/LINE
STATE TRANSPORT AUTHORITY
PROPERTY GROUP (SURVEY)
10th FLOOR, 589 COLLINS STREET
MELBOURNE 3000 PH. 6194056

SURVEYORS REF.
82/1429

CERTIFICATE OF MUNICIPAL CLERK

MUNICIPALITY COUNCIL REF.

CERTIFICATE A
THIS PLAN ACCORDS WITH A PLAN
- SEALED BY THE COUNCIL UNDER SECTION 569B OF THE LOCAL GOVERNMENT ACT 1958 ON
- CONFIRMED BY THE PLANNING APPEALS BOARD ON
- AND A REQUIREMENT/NO REQUIREMENT PURSUANT TO SECTION 569E OF THE LOCAL GOVERNMENT ACT 1958 HAS BEEN MADE

DATE MUNICIPAL CLERK

CERTIFICATE B
THIS PLAN ACCORDS WITH A PLAN EXEMPTED FROM SUBDIVISION (3) OF DIVISION (9) OF PART XIX OF THE LOCAL GOVERNMENT ACT 1958 BY
- THE COUNCIL ON
- THE PLANNING APPEALS BOARD ON

DATE MUNICIPAL CLERK

OFFICE USE ONLY

PLAN APPROVED
AT
ON 22-10-'91

(ASSISTANT) REGISTRAR OF TITLES

0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150mm

ONLY CERTIFICATE A OR CERTIFICATE B TO BE COMPLETED
■ DELETE WORDS NOT APPLICABLE

Appendix E: Landowner notification declaration

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10 February 2026

Yarra Valley Water Corporation
ABN 93 066 902 501

To Hume City Council Representative,

We would like to acknowledge that the following affected landowners in your municipality have been notified of the works impacting their property. These high-level impacts are detailed below and are included as part of this planning permit.

Address	SPI	Owner	Permit trigger
N/A	R1\PS72490	Hume City Council	Vegetation removal and use of land within the PAO2
N/A	R1\PS72490.2	Hume City Council	Vegetation removal and use of land within the PAO2
N/A	L\PS521532	Roads Corporation (DTP)	Vegetation removal and use of land within the PAO2
650 Summerhill Road, Craigieburn	1\PS743425	Golina Holdings Pty Ltd	Vegetation removal and works on their property within our PAO9 area
794-798 Craigieburn Road E, Craigieburn	1\TP251903	Victorian Rail Track	Vegetation removal
752a Craigieburn Road E Craigieburn	1\PS743428	Landream Craigieburn	Vegetation removal
715 Summerhill Road Craigieburn	1\PS743427	Steven Mustica	Vegetation removal

Yours sincerely

Jen Sweatman
Project Manager,
Major Pipeline Projects

ce2bh@yvw.com.au

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Appendix F: Planning triggers assessment

Planning control	Affected land in Project Area	Permit triggered? Use	Buildings and works	Vegetation removal	Discussion
Zones					
IN3Z Clause 33.03	Main alignment – southern section	No	N/A	N/A	Pursuant to Clause 62.01, the use of land for a minor utility installation (MUI) does not require a planning permit. The IN3Z does not contain specific requirements relating to buildings and works or vegetation removal.
RLZ Clause 35.03	Mt Ridley Tanks offtake	No	No	N/A	Pursuant to Clause 62.01, the use of land for a MUI does not require a planning permit. Pursuant to Clause 62.02-1, a planning permit is not required for buildings and works associated with a MUI. The RLZ does not contain specific requirements relating to vegetation removal.
RCZ1 Clause 35.06	Main alignment -north of Summerhill Rd	No	No	N/A	RCZ1 denotes conservation values within or proximate to the Mount Ridley Grassland and Woodland Reserve, which supports habitat for a range of state and nationally significant flora and fauna species (e.g., Matted Flax Lily, Golden Sun Moth, Grey Headed Flying Fox, Yellow-bellied Sheathtail Bat). Pursuant to Clause 62.01, the use of land for a minor utility installation (MUI) does not require a planning permit. Pursuant to Clause 62.02-1, a planning permit is not required for buildings and works associated with a MUI. The RCZ1 does not contain specific requirements relating to vegetation removal.
TRZ1 Clause 36.04	Railway line	No	No	N/A	TRZ1 denotes state transport infrastructure. Pursuant to Clause 62.01, the use of land for a minor utility installation (MUI) does not require a planning permit. Pursuant to Clause 62.02-1, a planning permit is not required for buildings and works associated with a MUI. The TRZ1 does not contain specific requirements relating to vegetation removal.
TRZ2 Clause 36.04	Craigieburn Rd / Hume Fwy	No	No	N/A	TRZ2 denotes the principal road network. Pursuant to Clause 62.01, the use of land for a MUI does not require a planning permit. Pursuant to Clause 62.02-1, a planning permit is not required for buildings and works associated with a MUI. The TRZ2 does not contain specific requirements relating to vegetation removal.
CDZ1 Clause 37.02	Mt Ridley Tanks offtake	No	No	N/A	CDZ1 denotes the Jackson Hill Comprehensive Development Plan. Pursuant to Clause 62.01, the use of land for a minor utility installation (MUI) does not require a planning permit. Pursuant to Clause 62.02-1, a planning permit is not required for buildings and works associated with a MUI.

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Planning control	Affected land in Project Area	Permit triggered? Use	Buildings and works	Vegetation removal	Discussion
					The CDZ1 does not contain specific requirements relating to vegetation removal.
UFZ Clause 37.03	Main alignment - intersection with Malcolm Creek	No	No	N/A	Pursuant to Clause 62.01, the use of land for a minor utility installation (MUI) does not require a planning permit. Pursuant to Clause 62.02-1, a planning permit is not required for buildings and works associated with a MUI. The UFZ does not contain specific requirements relating to vegetation removal.
UGZ Clause 37.07	Main alignment - large portion north of Malcolm Creek	No	No	N/A	Pursuant to Clause 62.01, the use of land for a MUI does not require a planning permit. Pursuant to Clause 62.02-1, a planning permit is not required for buildings and works associated with a MUI. The UGZ does not contain specific requirements relating to vegetation removal.
UGZ8 Clause 37.07	Mt Ridley Tanks offtake / main alignment north of Summerhill Rd	No	No*	N/A	UGZ8 denotes the Craigieburn North Employment Area Precinct Structure Plan. Pursuant to Clause 62.01, the use of land for a MUI does not require a planning permit. Pursuant to Clause 62.02-1, a planning permit is not required for buildings and works associated with a MUI. The UGZ8 does not contain specific requirements relating to vegetation removal. If a planning permit were required, and the works are to be carried out on land including or abutting a conservation area as shown in the Craigieburn North Employment PSP, a Conservation Area Fencing Plan (CAFP) would be required. Based on Plan 1 in the Schedule 8 to Clause 37.03, the Project Area abuts Conservation Area 27 (not within Craigieburn North Employment PSP) along Summerhill Road. While there are no planning permit triggers to construct a building or carry our works associated with the Project, it is recommended that a CAFP be considered (without needing submission to DEECA) to reduce impacts to surrounding conservation areas.
Overlays					
ESO2 Clause 42.01	Main alignment – Merri Creek intersection	N/A	No	Possible	ESO2 denotes the Merri Creek and Moonee Ponds Creek and Environs. The ESO2 does not contain specific requirements relating to land use. Pursuant to Clause 62.02-1, a planning permit is not required for buildings and works associated with a MUI. Pursuant to Clause 42.01-2, a planning permit is required to remove, destroy or lop any vegetation including dead vegetation unless a schedule to the ESO or the table to specifically states a permit is not required, or the removal, destruction of lopping of native vegetation is in accordance with a native vegetation precinct plan specified in a schedule to Clause 52.16. Exemptions considered potentially applicable to the Project include:

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Planning control	Affected land in Project Area	Permit triggered? Use	Buildings and works	Vegetation removal	Discussion
					• Vegetation that is a noxious weed subject of a declaration under section 58 or section 58A of the *Catchment and Land Protection Act 1994*. This exemption does not apply to Australian Dodder (*Cuscuta australis*). • Vegetation that is to be impacted that was either planted or grown as a result of direct seeding for Crop raising or Grazing animal production. • Vegetation that is to be impacted that has naturally established or regenerated on land lawfully cleared of naturally established vegetation and is bracken (*Pteridium esculentum*). • Vegetation that is not native. Additional exemptions are provided in Clause 42.01 (Schedule 2) of the Hume Planning Scheme. Based on the *Aurora to Bald Hill NDW Main – Stage 1 Detailed Design: Flora and Fauna Assessment* (Ripple, 2025), there is native vegetation located within the ESO2 section of the Project Area. During the detailed design phase, Ripple's ecologists confirmed that vegetation triggering a permit under the ESO2 will be impacted, and none of the above exemptions are considered applicable in this instance. As such, a planning permit is triggered under the ESO2
ESO10 Clause 42.01	Main alignment – large section south of Merri Creek	N/A	No	Yes	ESO10 denotes a rural conservation area. The ESO10 does not contain specific requirements relating to land use. Pursuant to Clause 62.02-1, a planning permit is not required for buildings and works associated with a MUI. Pursuant to Clause 42.01-2, a planning permit is required to remove, destroy or lop any vegetation including dead vegetation unless a schedule to the ESO or the table to specifically states a permit is not required, or the removal, destruction of lopping of native vegetation is in accordance with a native vegetation precinct plan specified in a schedule to Clause 52.16. Exemptions considered potentially applicable to the Project include: • Vegetation that is a noxious weed subject of a declaration under section 58 or section 58A of the *Catchment and Land Protection Act 1994*. This exemption does not apply to Australian Dodder (*Cuscuta australis*). • Vegetation that is to be impacted that was either planted or grown as a result of direct seeding for Crop raising or Grazing animal production. • Vegetation that is to be impacted that has naturally established or regenerated on land lawfully cleared of naturally established vegetation and is bracken (*Pteridium esculentum*). • Vegetation that has been planted or grown for aesthetic or amenity purposes, including agroforestry (the simultaneous and substantial production of forest and other agricultural products from the same land unit), shelter belts, woodlots, street trees, gardens or the like. This exemption does not apply if public funding was provided to assist in planting or managing the vegetation for conservation purposes and the terms of the funding did not anticipate removal or harvesting of the vegetation. • To maintain an existing fence where the removal of vegetation is within a combined maximum width of 4 metres either side of the fence.

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Planning control	Affected land in Project Area	Permit triggered? Use	Buildings and works	Vegetation removal	Discussion
					Additional exemptions are provided in Clause 42.01 (Schedule 10) of the Hume Planning Scheme. Based on *Aurora to Bald Hill NDW Main – Stage 1 Detailed Design: Flora and Fauna Assessment* (Ripple, 2025), there is vegetation located within the ESO10 section of the Project Area. During the detailed design phase, Ripple's ecologists confirmed that vegetation triggering a permit under the ESO10 will be impacted, and none of the above exemptions are considered applicable in this instance. As such, a planning permit is triggered under the ESO10
HO34 Clause 43.01	Mt Ridley Tanks	N/A	N/A	N/A	HO34 denotes the Mt Ridley Homestead in Mickleham, which is also listed under the Victorian Heritage Register (VHR) (Ref No. H2246). Under the HO, a planning permit is not required to develop a heritage place which is included in the Victorian Heritage Register. A heritage place which is included in the Victorian Heritage Register is subject to the requirements of the *Heritage Act 2017.*
HO230 Clause 43.01	Main alignment – Merri Creek intersection	No	No	N/A	HO230 denotes the Railway Bridge (over the Merri Creek) in Craigieburn. No change of use is proposed. Pursuant to Clause 62.02-1, a planning permit is not required for buildings and works associated with a MUI. Pursuant to Clause 43.01-2, a planning permit is required to demolish or remove a heritage structure. During detailed design, the design team confirmed that no works are proposed within the extent of the HO230 HO230 does not contain any tree controls.
HO231 Clause 43.01	Directly adjacent to the main alignment near the Malcolm Creek intersection	N/A	N/A	N/A	HO231 denotes the Railway Bridge (over the Malcolm Creek) in Craigieburn. No works are proposed in the HO231, which is directly adjacent the alignment corridor.
DDO1 Clause 43.02	Main alignment – near Hume Fwy intersection	N/A	No	N/A	The DDO1 denotes the Hume Freeway – Metropolitan Ring Road to north of Craigieburn. The DDO1 does not contain specific requirements relating to land use or vegetation removal. Pursuant to Clause 62.02-1, a planning permit is not required for buildings and works associated with a MUI.
DPO7 Clause 43.04	Mt Ridley Offtake	N/A	N/A	N/A	DPO7 denotes an urban development area: residential. The DPO7 does not contain specific requirements relating to land use, buildings & works, and vegetation removal.
DPO8 Clause 43.04	Mt Ridley Offtake	N/A	N/A	N/A	DPO8 denotes a rural residential area.

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Planning control	Affected land in Project Area	Permit triggered? Use	Buildings and works	Vegetation removal	Discussion
					The DPO8 does not contain specific requirements relating to land use, buildings & works, and vegetation removal.
RFO Clause 44.03	Merri Creek intersection	N/A	No	N/A	The RFO does not contain specific requirements relating to land use or vegetation removal. Pursuant to Clause 62.02-1, a planning permit is not required for buildings and works associated with a MUI.
BMO Clause 44.06	Main alignment / Mt Ridley Offtake	N/A	No	N/A	The BMO does not contain specific requirements relating to land use or vegetation removal. Pursuant to Clause 62.02-1, a planning permit is not required for buildings and works associated with a MUI.
PAO2 Clause 45.01	Mt Ridley Offtake	Yes	No	Yes	PAO2 denotes land acquired by Hume City Council for the purpose of road construction and widening. Pursuant to Clause 45.01-1, a permit is required to use land for any Section 1 use in the zone. As the works are an MUI (i.e. Section 1 Use) under the RLZ, a permit is required. Pursuant to Clause 62.02-1, a planning permit is not required for buildings and works associated with a MUI. Under PAO2, a permit is required to damage, remove, destroy or lop any vegetation. This does not apply: • If the vegetation is a crop/pasture, • For electric line clearance, • If the vegetation poses a risk to of injury or damage to property, or • To an authority or a municipal council if the responsible authority (i.e., Hume City Council), after consulting with the acquiring authority (i.e., Hume City Council) for the land, is satisfied that any of the above matters for which a permit is required is consistent with the purpose for which the land is to be acquired. Based on the *Aurora to Bald Hill NDW Main – Stage 1 Detailed Design: Flora and Fauna Assessment* (Ripple, 2025), the majority of vegetation mapped within the PAO2 sections of the alignment has likely been planted (along Mt Ridley Rd), however a planning permit for vegetation removal within the PAO2 will be required as YVW are not the acquiring authority.
PAO4 Clause 45.01	Main alignment (entire length in LGA)	No	No	No	PAO4 denotes land that has been acquired by YVW for the Amaroo and Lockerbie Main Sewer Project. Pursuant to Clause 62.01, the use of land for a MUI does not require a planning permit. Pursuant to Clause 62.02-1, a planning permit is not required for buildings and works associated with a MUI. Under the PAO4, a permit is required to damage, remove, destroy or lop any vegetation. This does not apply to the acquiring authority (i.e., YVW) for the land if the land has been acquired and if any of the above matters for which a permit is required is consistent with the purpose for which the land was acquired. As YVW has acquired the land, and the use is consistent (minor utility works) with the purpose for which the land was a permit is not required.

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Planning control	Affected land in Project Area	Permit triggered? Use	Buildings and works	Vegetation removal	Discussion
DCPO8 Clause 45.06	Mt Ridley Offtake	N/A	N/A	N/A	DCPO8 denotes the Craigieburn North Employment Area Development Contributions Plan. The DCPO8 does not contain specific requirements relating to land use, buildings and works and vegetation removal.
SCO11 Clause 45.12	Mt Ridley Offtake	N/A	N/A	N/A	SCO11 denotes the Hume Anglican School, 100 Mt Ridley Road, Mickelham, April 2010 – Incorporated Document. While the SCO11 is in place for the Hume Anglican School, any interfaces between the School's and YVW's works will need to be managed to ensure there are no conflicting interests. The SCO11 does not contain specific requirements relating to land use, buildings and works and vegetation removal.
Particular Provisions					
Native Vegetation Clause 52.17	All land	N/A	N/A	Yes	Pursuant to Clause 52.17 a permit is required to remove, destroy, or lop native vegetation, including dead native vegetation. This does not apply to: • Native vegetation that is to removed, lopped or destroyed to the minimum extent necessary: o To maintain the safe and efficient function of a minor utility installation o By or on behalf of a utility service provider to maintain or construct a utility installation in accordance with the written agreement of the Secretary to the Department of Environment, Land, Water and Planning (as constituted under Part 2 of the *Conservation, Forests and Lands Act 1987* Utility works that comply with the conditions of the Procedure are exempt from requiring a planning permit under Clause 52.17 of the *Planning and Environment Act 1987.* • Planted vegetation that is to be removed, destroyed or lopped that was either planted or growth as a result of direct seeding. This exemption does not apply to native vegetation planted or managed with public funding for the purpose of land protection or enhancing biodiversity unless the removal, destruction or lopping of the native vegetation is in accordance with written permission of the agency (or its successor) that provided the funding. • Land shown as UGZ8 for all native vegetation in the levy area within the meaning of the *Melbourne Strategic Assessment (Environmental Mitigation Levy) Act 2022*, does not require a permit to impact vegetation. This does not apply to the scattered trees and native vegetation identified as 'to be retained' on Plan 6 of the Craigieburn North Employment Area PSP. The Project Area does not overlap with the conservation areas on Plan 6 in the PSP; therefore, a permit is not required to impact native vegetation under Clause 52.17 within the UGZ8. Based on the *Aurora to Bald Hill NDW Main – Stage 1 Detailed Design: Flora and Fauna Assessment* (Ripple, 2025) the Project Area comprises native vegetation outside the MSA area (i.e. outside the UGZ8). During the detailed design phase, Ripple's ecologists confirmed that this vegetation will be impacted. As such a planning permit is triggered under Clause 52.17.
NOTES:					
*While a planning permit is not required, there are other environmental aspects that must be considered by the project team.					

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Appendix G: Site Plan – Vegetation impacts and land use

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Site Plan - Clause 52.17 Vegetation Impacts

Aurora to Bald Hill Non-drinking Water Main

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Legend

- Project Area
- Trenchless Shafts and Working Areas - Stage 1a
- Excavation Extent

Impacted vegetation

- Native tree
- NRZ (native)
- Impacted Native Vegetation point
- Plains Grassy Woodland (EVC 132)
- Impacted Native Vegetation
- Impacted Scattered Native Vegetation
- LGA boundary



DATA SOURCES
Department of Transport and Planning 2025, Stantec 2025;
Imagery: Google Satellite 2025

SCALE 1:4,000
0 0.05 0.1 km

Yarra Valley Water

HUME

WHITTLESEA

Fragrant Saltbush

Fragrant Saltbush

Fragrant Saltbush

Fragrant Saltbush

HUME

HUME FREEWAY

HUME FREEWAY

HUME

WHITTLESEA

Site Plan - Clause 52.17 Vegetation Impacts

Aurora to Bald Hill Non-drinking Water Main

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Legend

- Project Area
- Excavation Extent
- **Impacted vegetation**
- Impacted FFG Species
- Plains Grassland (EVC 55)
- Plains Grassy Woodland (EVC 132)
- Impacted Scattered Native Vegetation
- LGA boundary

HUME

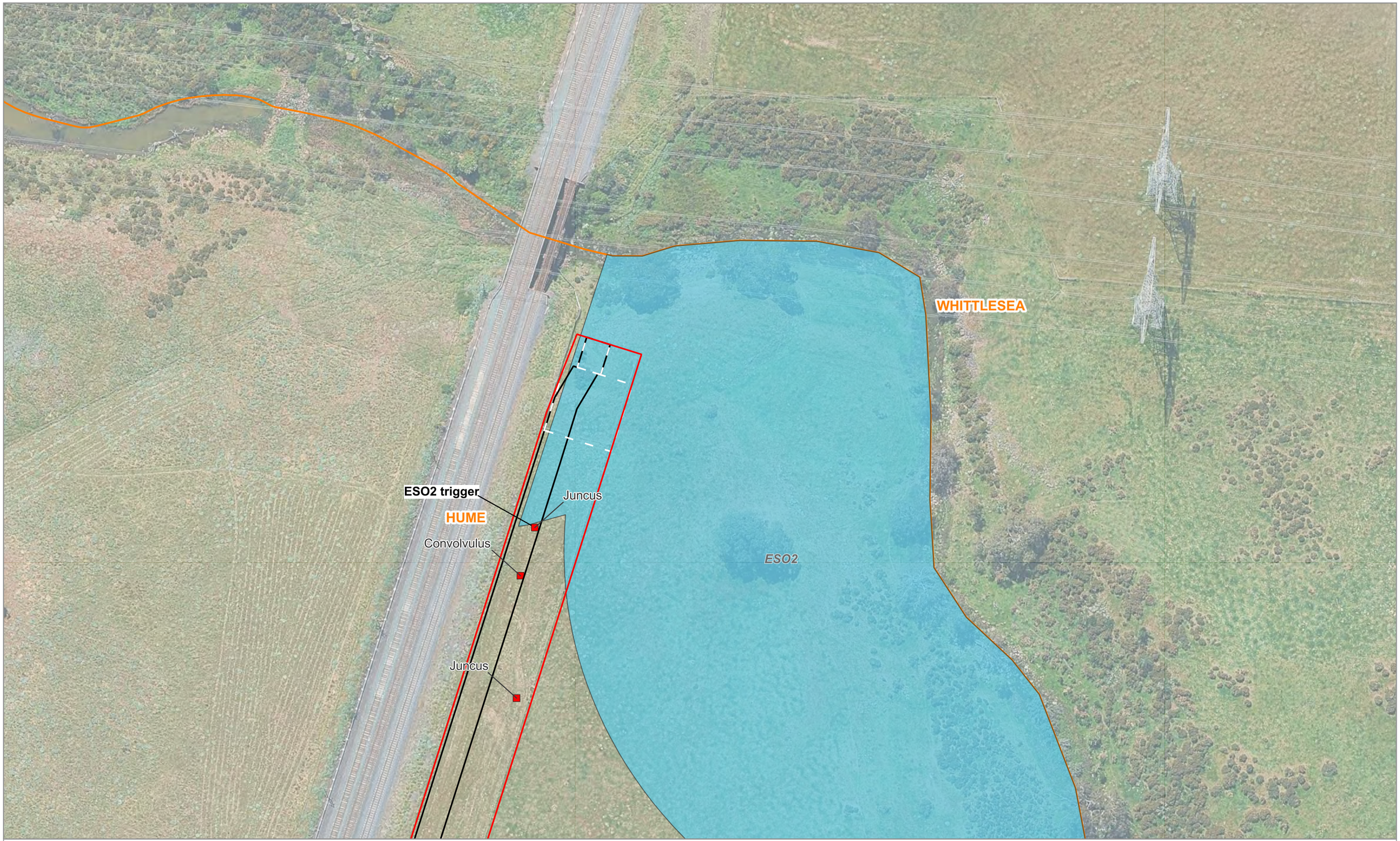
MELBOURNE

DATA SOURCES
Department of Transport and Planning 2025, Stantec 2025; Imagery: Google Satellite 2025

SCALE 1:4,500

0 0.05 0.1 km

Yarra Valley Water



Site Plan - ESO2 Vegetation Removal

Aurora to Bald Hill Non-drinking Water Main

Legend

- Project Area
- Trenchless Shafts
- Excavation Zone
- ESO2
- Impacted Native Vegetation
- LGA boundary



DATA SOURCES
Stantec 2025, Department of Transport and Planning 2025;
Imagery:Google Satellite 2025

SCALE 1:993.824504

5 0 5 10 15 m

Yarra Valley Water

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Site Plan - ESO10 Vegetation Impacts

Aurora to Bald Hill Non-drinking Water Main

Legend

- Project Area
- LGA boundary
- Retained vegetation
- Tree
- Habitat Zones
- Native Vegetation
- NRZ
- Impacted vegetation (ESO10)
- Native Vegetation point
- Native Vegetation
- ESO10



DATA SOURCES
Department of Transport and Planning 2025, Stantec 2025;
Imagery: Google Satellite 2025

SCALE 1:6,000

0 0.1 0.2 km

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Site Plan - PAO2 Land use

Aurora to Bald Hill Non-drinking Water Main

Legend
- Project Area
- Pipeline Alignment
- HUME - OVERLAYS
- PAO2

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DATA SOURCES
Stantec 2025, Department of Transport and Planning 2025;
Imagery:Google Satellite 2025

SCALE 1:1,200
5 0 5 10 15 m

Yarra Valley Water



Site Plan - PAO2 Vegetation Removal

Aurora to Bald Hill Non-drinking Water Main

Legend

- Project Area
- Tree - retained
- NRZ
- PAO2 tree - impacted
- Tree not subject to planning permission - impacted

HUME - OVERLAYS

- PAO2



DATA SOURCES
Stantec 2025, Department of Transport and Planning 2025;
Imagery:Google Satellite 2025

SCALE 1:800

5 0 5 10 15 m

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Appendix H: Arboricultural Impact Assessment

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Aurora to Bald Hill NDW Main – Stage 1 Detailed Design

Arboricultural Impact Assessment

Prepared for Yarra Valley Water

Prepared by Ripple JV | 31 October 2025

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Revision schedule

Rev No.	Date	Description	Prepared by	Checked by	Reviewed by	Approved by
01	12/09/2025	Draft Arboricultural Impact Assessment	Daniel Snowden	Matthew Hall	Juan Paulo Vitug	Carmen Loo
02	17/09/2025	Draft Arboricultural Impact Assessment	Daniel Snowden	Matthew Hall	Juan Paulo Vitug	Carmen Loo
03	31/10/2025	Revision to AIA based on new works footprint	Daniel Snowden	Matthew Hall		
04	21/11/2025	Issued as final	Daniel Snowden	Matthew Hall		

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Quality statement

Ripple Project Manager	Ripple Project Delivery Manager
Carmen Loo	Jessica Maxfield

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CHECKED BY

Matthew Hall 10//09/2025

REVIEWED BY

Juan Paulo Vitug 12/09/2025

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Glossary

The following interpretations apply to terms and acronyms used in this document:

Term	Definition
Amenity Tree	Tree that is non-indigenous to the project area or an indigenous species that is planted for amenity purposes.
DAB	Diameter at Base: The trunk diameter of the tree measured with a diameter tape above the root flare, used to calculate the SRZ.
DSH	Diameter at Standard Height: Indicates the trunk diameter of an individual tree usually measured at 1.4m above the existing ground level, used to calculate the NRZ.
Native Tree	Indigenous Tree that is naturally occurring or planted for biodiversity reasons.
SRZ	Structural Root Zone: A formula to define the theoretical volume of soil and tree roots required to keep a tree stable in the ground. SRZ = $(Dx50)^{0.42}$ x 0.62.
NRZ	Notional Root Zone This calculates the NRZ radius by multiplying the trunk DSH by 12 to a maximum of 15m radius.
Tree	Woody plant with a height ≥3m.
ULE	Useful Life Expectancy
NATIVE SPECIES BASED ON DEECA GUIDELINES	
Victorian Native	Species that are native to Victoria, will include some environmental weeds.
Indigenous to Site	Species that are native to Victoria and indigenous to the specific locality or bioregion of the project area (e.g., naturally occurring).
Non-indigenous	Species that are native to Victoria but not indigenous to the specific locality or bioregion of the project area, will include some environmental weeds.
NON-NATIVE SPECIES BASED ON DEECA GUIDELINES	
Exotic	species that are not native to Australia, will include Weeds of National Significance and Declared Noxious Weeds.
Non-native	species that are native to Australia but not indigenous to Victoria, will include Declared Noxious Weeds and some environmental weeds.

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1 Executive Summary

Yarra Valley Water (YVW) is undertaking major infrastructure upgrades to support population growth across Melbourne's Northern Growth Corridor (NGA). The Northern Growth Area Drinking & Non-Drinking Water Transfer Report (Sept 2021) identifies the transfer mains and pump stations required to secure long-term supply of both drinking water (DW) and non-drinking water (NDW) to new communities. A key focus of the strategy is reliability, with NDW pipelines providing two independent supply sources for each reservoir in the NGA.

To enable functional design and land acquisition for the proposed NDW pipeline, Ripple completed a Preliminary Flora and Fauna Assessment (June 2023), followed by an Arboricultural Impact Assessment (AIA) (this report). The AIA assesses trees and significant vegetation within the project corridor, identifies potential impacts to trees and recommends measures to avoid or mitigate damage in accordance with AS 4970-2025 *Protection of Trees on Development Sites* and AS 4373-2007 *Pruning of Amenity Trees*.

A total of 371 trees were identified in the Project Area, with the majority in fair to good health and of low arboricultural value. High-value trees were generally large remnant canopy specimens or trees located on private property. The assessment found that:

1. Where works are limited to horizontal directional drilling (HDD) at depths greater than 600mm or to the establishment of an access track, impacts are considered low and can be managed through periodic consulting arborist inspection (arborist supervision).

2. Where excavation occurs within the Notional Root Zone (NRZ) or incursions extend into the Structural Root Zone (SRZ), tree retention is not viable, and removal is recommended.

3. In total, 68 trees are recommended for removal under the current design (see **Table 2**).

4. Tree health monitoring and appropriate protection measures, including Tree Protection Zone (TPZ) Fencing, plus the use of geofabric and crushed rock for temporary road access construction, will assist in reducing soil disturbance and supporting reinstatement following works.

The findings and recommendations of this AIA should be incorporated into the detailed design and construction planning process. Should alignment changes occur, or recommended impact mitigation measures are not implementable, further arboricultural advice will be required prior to works commencing.

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2 Introduction

2.1 Background and Project Description

Yarra Valley Water (YVW) is planning infrastructure upgrades to support growth in Melbourne's Northern Growth Corridor (NGA), which extends from Craigieburn to Wallan. The YVW Northern Growth Area Drinking & Non-Drinking Water Transfer Report (Sept 2021) outlines the proposed transfer pipelines and pump stations required to supply both drinking water (DW) and non-drinking water (NDW) over the next 20 years.

A key priority of the strategy is reliability of supply. NDW transfers between the Aurora Recycled Water Treatment Plant (RWTP) and the future Mt Fraser Reservoir, and between Wallan RWTP and Mt Fraser Reservoir, will provide two independent supply sources for each NDW reservoir in the NGA.

A route feasibility assessment has been completed for the required pipelines and pump stations, including:

- Aurora RWTP (RTP074) to Mt Ridley Reservoir (RRS010) NDW transfer mains
- Mt Ridley Reservoir (RRS010) to Bald Hill Reservoir (RRS011) NDW transfer mains via Wollert RWTP
- Bald Hill Reservoir (RRS011) to Mt Fraser Reservoir (RRS007) NDW transfer mains and PS
- Wallan RWTP (RTP075) to Mt Fraser Reservoir (RRS007) NDW transfer main
- Bald Hill Reservoir (WRS615) to Mt Fraser Reservoir (WRS607) DW transfer mains and PS

YVW requires all DW and NDW infrastructure to be located on land under YVW control (freehold or easement) wherever possible, avoiding road reserves except for crossings. Freehold ownership is preferred to ensure long-term control of pipeline and asset locations. To achieve this, YVW seeks a Public Acquisition Overlay (PAO) over pipeline sections not currently under freehold title (GHD, 2022). Priority for land acquisition focuses on NDW pipelines from Aurora RWTP to Donnybrook Road Transfer Main, specifically:

- Aurora RWTP to Mt Ridley Reservoir NDW transfer main
- Mt Ridley Reservoir to Wollert RWTP NDW transfer main
- Wollert RWTP Offtake to Donnybrook Road Transfer Main NDW main

To support this process, Ripple completed a Preliminary Flora and Fauna Assessment (June 2023) to guide PAO land acquisition and facilitate functional design of the NDW pipeline. Following this, YVW requested an Arboricultural Impact Assessment (AIA) to evaluate trees and significant vegetation along the in progress Detailed Design alignment, as part of the Aurora to Bald Hill NDW Stage 1 project alignment. The AIA aims to:

- Identify trees that may be impacted by the project works allignment
- Recommend measures to avoid or mitigate impacts on trees
- Provide sufficient detail to satisfy any arboricultural approval requirements and support sensitive design of YVW infrastructure

Refer to **Figure 1** for the Study Area associated with this Arboricultural Impact Assessment as relates to the in-progress Detailed Design alignment of the Aurora to Bald Hill NDW Stage 1 project (current at the time of preparing this report). Detailed arboricultural mapping is attached in **Appendix A – Tree Protection Plan**.

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Figure 1 Map showing approximate Arboricultural Impact Assessment Study Area as part of the Aurora to Bald Hill Main NDW Main Stage 1 alignment.

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2.2 Objectives

This report outlines the results of the AIA of the section of the in-progress Detailed Design alignment of the Aurora to Bald Hill NDW Stage 1 project being taken through to Detailed Design along with the proposed construction footprint (hereafter referred to as the Project Area).

Information regarding the location of trees within and adjacent to the Project Area will be collected, and tree impacts that may be anticipated due to the planned works will be identified. This includes the identification of trees requiring removal, trees to be retained and trees that require arborist inputs during the active works phase (possibly retain), in accordance with Australian *Standard AS 4970-2025 – Protection of Trees on Development Sites* and *AS 4373-2007 Pruning of Amenity Trees*. Lastly, Tree Protection Specifications (TPS) will be prepared to address tree protection measures required for trees to be retained within the project boundary.

The recommendations within this report should be considered prior to works commencing. Should there be modifications to the construction plans that were reviewed in preparation of this document or should recommendations within this document not be able to be implemented, then further arboricultural advice will be required.

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3 Methodology

3.1 Methodology

An arboricultural impact assessment was undertaken by Daniel Snowden (Stantec Ecologist and Consulting Arborist's Associate) and Matthew Hall (Stantec Consulting Arborist) on the 20th and 23rd of June 2025. The following tree attributes were collected on site:

- Unique Tree ID;
- Scientific name;
- Common name;
- Height;
- Diameter at Standard Height (DSH)
- Origin
- Structure
- Health
- Maturity
- ULE (years)
- Form
- Arboricultural (retention) value
- Structural Root Zone (SRZ) (calculated off-site)
- Notional Root Zone (NRZ) (calculated off-site)
- Habitat Features (if applicable)- i.e. nests, dreys, loose bark; and
- Additional comments.

Photographs were also collected for each tree as required.

3.2 Limitations

A ground-based assessment has inherent limitations. A visual inspection of a tree is not sufficient to determine the full extent of internal decay or root rot. Furthermore, any tree can fail under enough force, such as extreme wind, flooding or mechanical damage. The methods applied in this assessment underscore that only visible or detectable conditions are taken into account. Prognoses described in this report reflect the given condition of a tree at the time of inspection, and any time-frames provided should not be seen as a guaranteed period for the assessment.

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4 Results

4.1 Tree Impact Assessment

A total of 338 tree data points exist within the Project Area, with some points representing multiple trees, resulting in 371 trees identified in total. Tree DSH data was recorded during the preliminary ecological assessment, with a subsequent arboricultural impact assessment conducted on a subsection of the cohort to quantify final alignment impacts. Not all trees assessed in the ecological assessment were included in the AIA as shown in **Appendix A – Tree Protection Plan**. A number of the data points within the Project Area did not meet the definition of a tree i.e. a woody plant with a height greater-than or equal-to three metres. For the purposes of this Arboricultural Impact Assessment, only individuals that meet the definition of a tree as per AS4970–2025 are included. The specific details and measurements for each tree assessed as part of the AIA are provided in **Appendix E – Tree Inventory**. A snapshot of key tree attributes is presented in **Table 1**. Refer to **Table 2** for a consolidated list of recommended tree removals where major NRZ encroachment is anticipated under the current design.

It is noted that, during the arboricultural assessment, a number of trees within the Study Area contained a range of habitat features including bird nests, dreys, and hollows. Ninety-seven percent (97%) of arboriculturally assessed trees were identified as being in 'fair', 'good' or 'very good' health. However, the majority of trees were assessed as having a 'low' retention value (56%). For the purposes of this assessment, high value trees were trees considered to be particularly large, remnant canopy trees, or trees located on private property.

Table 1 Snapshot of key tree attributes.

Tree Attributes	Category	Number
Tree Status	Native	81
	Amenity	72
Tree Health	Very Good	0
	Good	143
	Fair	6
	Poor	2
	Very Poor	0
	Dead	2
Retention Value	Very High	0
	High	12
	Moderate	56
	Low	85
	Very Low	0
	Remove	0

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4.2 Recommendations

Proposed works—including excavation, horizontal directional drilling (HDD), and installation of an access track—are required to facilitate the installation of a water pipeline on behalf of Yarra Valley Water. Under AS 4970-2025 – Protection of trees on development sites, excavation within the Structural Root Zone (SRZ) or Notional Root Zone (NRZ) of retained trees may result in direct root impacts and should be overseen by a consulting arborist (minimum AQF-5) to ensure tree-sensitive construction techniques are employed. Where HDD occurs at a depth greater than 600mm beneath unsealed ground, impacts to tree root systems are considered to be negligible and arborist supervision is not required.

Where works are limited to the establishment of an access track, impacts are considered low. Installation using geofabric and crushed rock will reduce soil disturbance and improve outcomes following completion of works. In these areas, monitoring via periodic inspection by the project arborist or site environmental representative is sufficient to observe for indicators of decline such as chlorosis, canopy dieback or reduced vigour. Where early stress is observed, remedial measures—such as mulching or irrigation—should be implemented under arborist guidance.

Where excavation results in major encroachment into the NRZ with direct incursion into the SRZ, tree retention is not considered viable. In such cases, tree removal is recommended on the basis that structural stability and long-term viability would be compromised by the proposed works (see **Table 2**).

Where works are limited to sealed road pavement or areas of existing disturbance, impacts are considered low and monitoring via periodic arborist inspection is considered sufficient to achieve tree retention.

It is noted that although administrative removal is recommended for project trees 33, 192 and 340, practical retention may still be feasible. Accordingly, opportunities to retain these trees should be explored and pursued where possible.

Table 2 Consolidated list of trees recommended for removal.

Recommendation	Tree ID
Removal	021, 028, 031, 032, 033, 035, 037, 038, 041, 053, 054, 055, 056, 057, 058, 059, 060, 064, 087, 089, 108, 137, 164, 192, 194, 238, 239, 259, 260, 262, 263, 265, 266, 268, 269, 270, 271, 272, 277, 278, 280, 281, 283, 285, 287, 289, 290, 291, 292, 293, 295, 296, 298, 310, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340.

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5 Tree Protection Plan

To ensure all trees planned for retention are protected, Tree Protection Specifications (TPS) are outlined below. All recommended interventions are summarised in **Table 3**. It is recommended that Tree Protection Zone (TPZ) Fencing requirements be addressed within the Construction Environmental Management Plan (CEMP). The CEMP should outline the location, specifications, and maintenance of TPZ Fencing in accordance with relevant standards and best practice guidelines.

The NRZs of trees indicated in **Table 3** either intersect with, or are in close proximity to, the works footprint, specifically excavation works. However, in these cases the impact of the proposed trenching works are considered low and tree retention is recommended.

Trees earmarked for retention within the construction boundary are recommended to be protected through the establishment of Tree Protection Zone (TPZ) fencing. This measure ensures their continued health and structural integrity by preventing accidental disturbance or damage throughout the duration of construction works.

In most cases, trees anticipated to sustain a major NRZ encroachment combined with an SRZ incursion are to be considered lost (remove). Refer to **Appendix A – Tree Protection Plan** for the location of trees earmarked for retention, possible retention following arboricultural supervision, and removal.

Table 3 Summary of Proposed Tree Protection Measures for Retained Trees.

Tree ID Numbers	Tree Protection Measure
091, 101, 104, 107, 109, 110, 111, 158, 200, 252, 253, 267, 294, 297, 311, 312, 313, 314, 316, 318, 321, 323, 324.	**Arborist Supervision** – Onsite works supervision required during tree pruning for verification of works to AS4373 standards, and during works nearby tree/s to manage potential encroachment into NRZ of tree/s being retained.
20, 22–27, 29, 30, 34, 36, 40, 61–63, 80–81, 83–86, 88, 90–93, 96, 98–102, 104–107, 109–114, 122–125, 140, 142, 200, 202–203, 259, 263–265, 267, 276, 294.	**Tree Protection Zone (TPZ) Fencing** – Physical isolation of the TPZs of trees for retention from all aspects of active works including direct ground impacts, storage of materials, soil contamination and the introduction of pathogens.

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6 References

DEECA (2017). Guidelines for the removal, destruction or lopping of native vegetation. Melbourne.

Standards Australia (2025). Protection of trees on development sites. Standards Australia, Sydney.

Standards Australia (2007). Pruning of amenity trees. Standards Australia, Sydney.

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APPENDICES

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Appendix A: Map Series – Tree Protection Plan

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Tree Management & Protection Plan

Aurora to Bald Hill NDW Main
Craigieburn 3064 to Wallan 3756

Map 1 of 111

Project Code:300250055
Drawn By: DS, Checked By: MH
Date: 2025-10-23
Revision: B

Legend

Construction Corridor Alignment
- Construction Boundary
- Temporary Access Corridor
- Proposed Access Track
- Excavation Zone
- Pipeline Alignments
- Trenchless Shafts and Working Areas
- Indicative Shared User Path

Tree
- Retain (Arboricultural data)
- Retain (Ecology data)
- Retain with supervision (Arboricultural data)
- Retain with supervision (Ecology data)
- Remove (Arboricultural data)
- Remove (Ecology data)
- Absent at time of assessment

Root Zones
- NRZ
- SRZ
- TPZ Fencing

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. MetroMap 2025.

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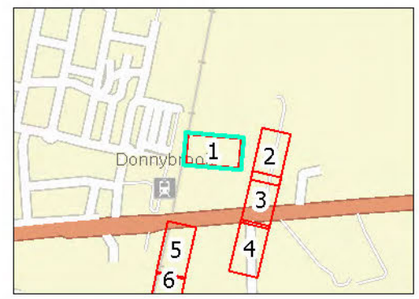

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Tree Management & Protection Plan

Aurora to Bald Hill NDW Main
Craigieburn 3064 to Wallan 3756

Map 2 of 111

Project Code:300250055
Drawn By: DS, Checked By: MH
Date: 2025-10-23
Revision: B

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Legend

Construction Corridor Alignment
- Construction Boundary
- Temporary Access Corridor
- Proposed Access Track
- Excavation Zone
- Trenchless Shafts and Working Areas
- Indicative Shared User Path

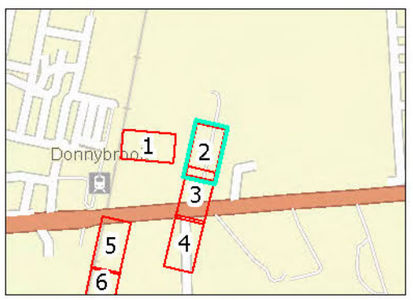
Tree
- Retain (Arboricultural data)
- Retain (Ecology data)
- Retain with supervision (Arboricultural data)
- Retain with supervision (Ecology data)
- Remove (Arboricultural data)
- Remove (Ecology data)
- Absent at time of assessment

Root Zones
- NRZ
- SRZ
- TPZ Fencing

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. MetroMap 2025.

0 2.5 5 7.5 10 Metres
Scale at A3: 1:260



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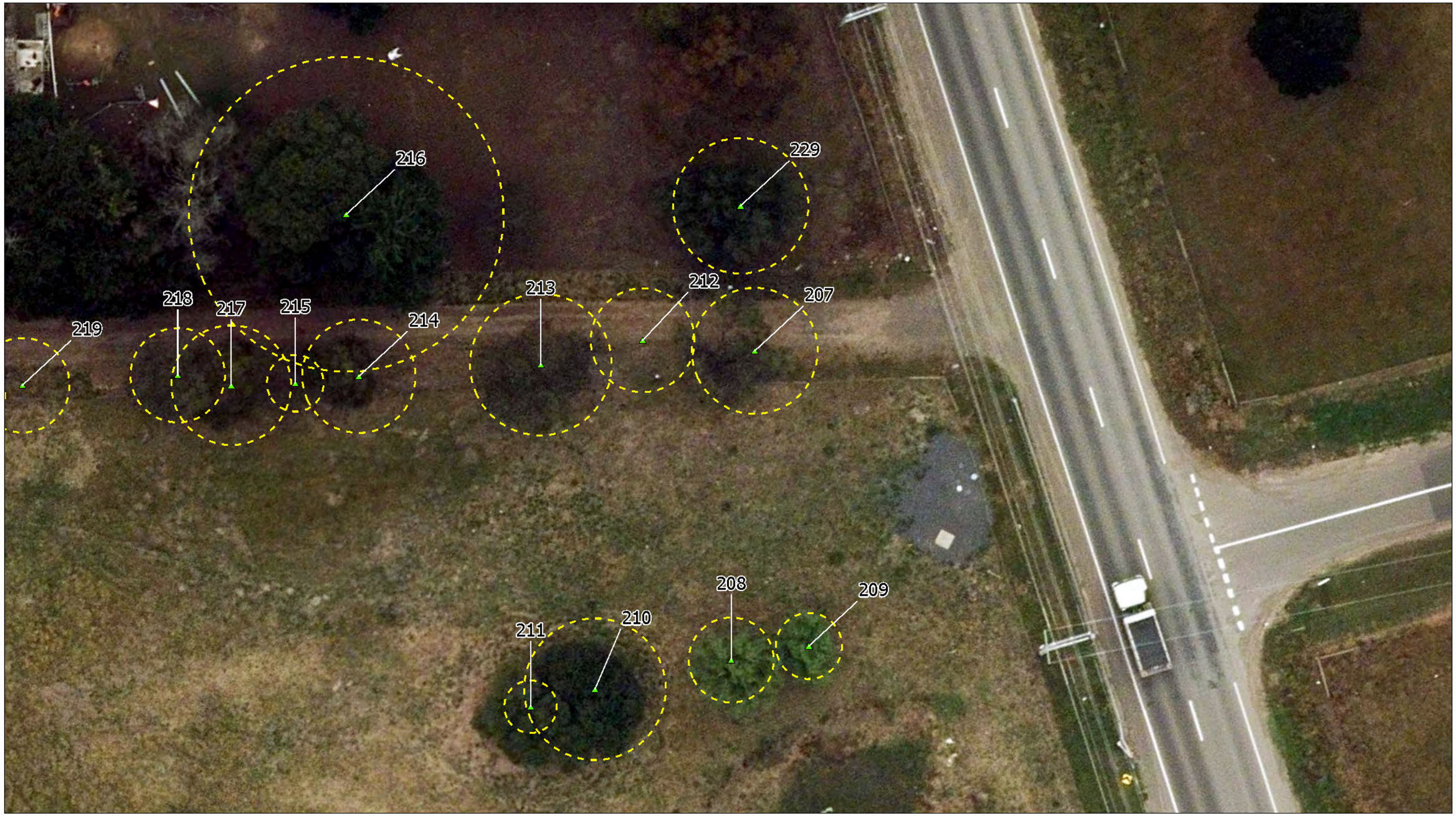


Tree Management & Protection Plan

Aurora to Bald Hill NDW Main
Craigieburn 3064 to Wallan 3756

Map 3 of 111

Project Code:300250055
Drawn By: DS, Checked By: MH
Date: 2025-10-23
Revision: B

Legend

Construction Corridor Alignment
- Construction Boundary
- Temporary Access Corridor
- Proposed Access Track
- Excavation Zone
- Pipeline Alignments
- Trenchless Shafts and Working Areas
- Indicative Shared User Path

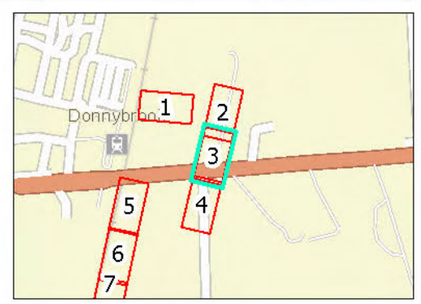
Tree
- Retain (Arboricultural data)
- Retain (Ecology data)
- Retain with supervision (Arboricultural data)
- Retain with supervision (Ecology data)
- Remove (Arboricultural data)
- Remove (Ecology data)
- Absent at time of assessment

Root Zones
- NRZ
- SRZ
- TPZ Fencing

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. MetroMap 2025.

0 2.5 5 7.5 10 Metres
Scale at A3: 1:280



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Tree Management & Protection Plan

Aurora to Bald Hill NDW Main
Craigieburn 3064 to Wallan 3756

Map 4 of 111

Project Code:300250055
Drawn By: DS, Checked By: MH
Date: 2025.10.23
Revision: B

Legend

Construction Corridor Alignment
- Construction Boundary
- Temporary Access Corridor
- Proposed Access Track
- Excavation Zone
- Spoil Stockpile Area
- Trenchless Shafts and Working Areas
- Indicative Shared User Path

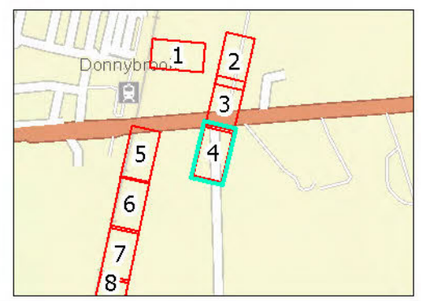
Tree
- Retain (Arboricultural data)
- Retain (Ecology data)
- Retain with supervision (Arboricultural data)
- Retain with supervision (Ecology data)
- Remove (Arboricultural data)
- Remove (Ecology data)
- Absent at time of assessment

Root Zones
- NRZ
- SRZ
- TPZ Fencing

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. MetroMap 2025.

0 2.5 5 7.5 10 Metres
Scale at A3: 1:280



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Tree Management & Protection Plan

Aurora to Bald Hill NDW Main
Craigieburn 3064 to Wallan 3756

Map 5 of 111

Project Code:300250055
Drawn By: DS, Checked By: MH
Date: 2025-10-31
Revision: B

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Legend

Construction Corridor Alignment
- Construction Boundary
- Temporary Access Corridor
- Proposed Access Track
- Excavation Zone
- Trenchless Shafts and Working Areas
- Indicative Shared User Path

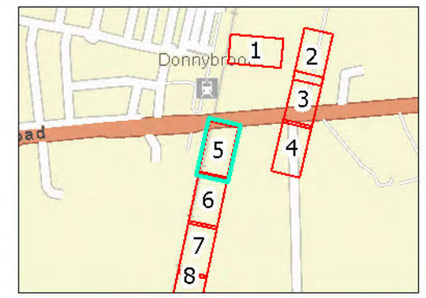
Tree
- Retain (Arboricultural data)
- Retain (Ecology data)
- Retain with supervision (Arboricultural data)
- Retain with supervision (Ecology data)
- Remove (Arboricultural data)
- Remove (Ecology data)
- Absent at time of assessment

Root Zones
- NRZ
- SRZ
- TPZ Fencing

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. MetroMap 2025.

0 2.5 5 7.5 10 Metres
Scale at A3: 1:280



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Tree Management & Protection Plan

Aurora to Bald Hill NDW Main
Craigieburn 3064 to Wallan 3756

Map 6 of 111

Project Code:300250055
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Date: 2025-10-23
Revision: B

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Stantec

Legend

Construction Corridor Alignment
- Construction Boundary
- Temporary Access Corridor
- Proposed Access Track
- Excavation Zone
- Extent of Transplanting
- Trenchless Shafts and Working Areas
- Indicative Shared User Path

Tree
- Retain (Arboricultural data)
- Retain (Ecology data)
- Retain with supervision (Arboricultural data)
- Retain with supervision (Ecology data)
- Remove (Arboricultural data)
- Remove (Ecology data)
- Absent at time of assessment

Root Zones
- NRZ
- SRZ
- TPZ Fencing

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. MetroMap 2025.

0 2.5 5 7.5 10 Metres
Scale at A3: 1:280



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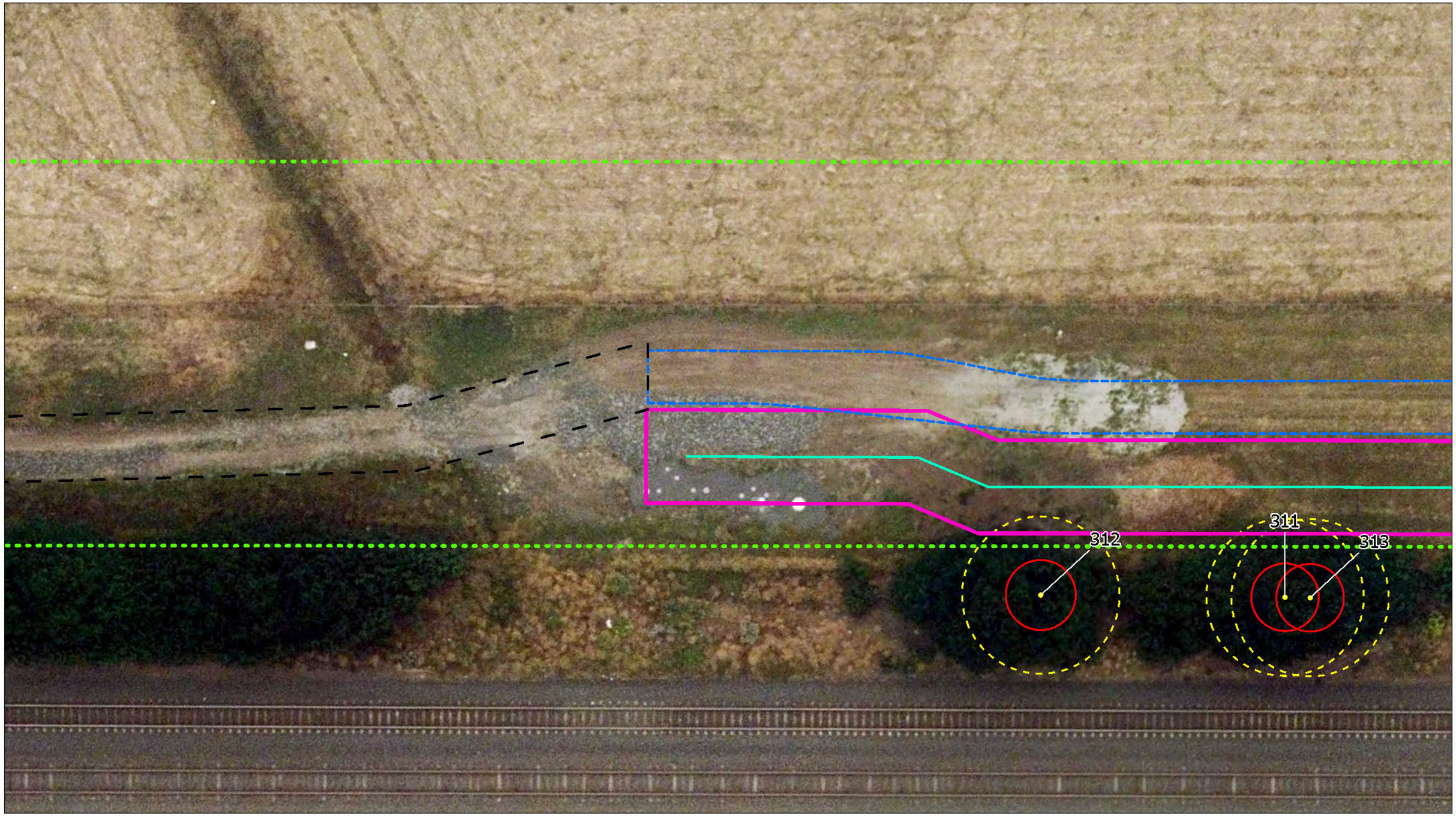

Tree Management & Protection Plan

Aurora to Bald Hill NDW Main
Craigieburn 3064 to Wallan 3756

Map 7 of 111

Project Code:300250055
Drawn By: DS, Checked By: MH
Date: 2025.10.23
Revision: B

Legend

Construction Corridor Alignment
- Construction Boundary
- Temporary Access Corridor
- Proposed Access Track
- Excavation Zone
- Spoil Stockpile Area
- Trenchless Shafts and Working Areas
- Indicative Shared User Path

Tree
- Retain (Arboricultural data)
- Retain (Ecology data)
- Retain with supervision (Arboricultural data)
- Retain with supervision (Ecology data)
- Remove (Arboricultural data)
- Remove (Ecology data)
- Absent at time of assessment

Root Zones
- NRZ
- SRZ
- TPZ Fencing

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. MetroMap 2025.

0 2.5 5 7.5 10 Metres
Scale at A3: 1:280



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Tree Management & Protection Plan

Aurora to Bald Hill NDW Main
Craigieburn 3064 to Wallan 3756

Map 8 of 111

Project Code:300250055
Drawn By: DS, Checked By: MH
Date: 2025.10.23
Revision: B

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Legend

Construction Corridor Alignment
- Construction Boundary
- Temporary Access Corridor
- Proposed Access Track
- Excavation Zone
- Extent of Impacts
- Trenchless Shafts and Working Areas
- Indicative Shared User Path

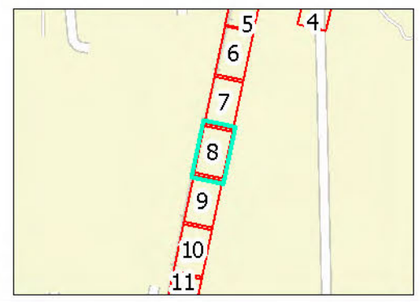
Tree
- Retain (Arboricultural data)
- Retain (Ecology data)
- Retain with supervision (Arboricultural data)
- Retain with supervision (Ecology data)
- Remove (Arboricultural data)
- Remove (Ecology data)
- Absent at time of assessment

Root Zones
- NRZ
- SRZ
- TPZ Fencing

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. MetroMap 2025.

0 2.5 5 7.5 10 Metres
Scale at A3: 1:280



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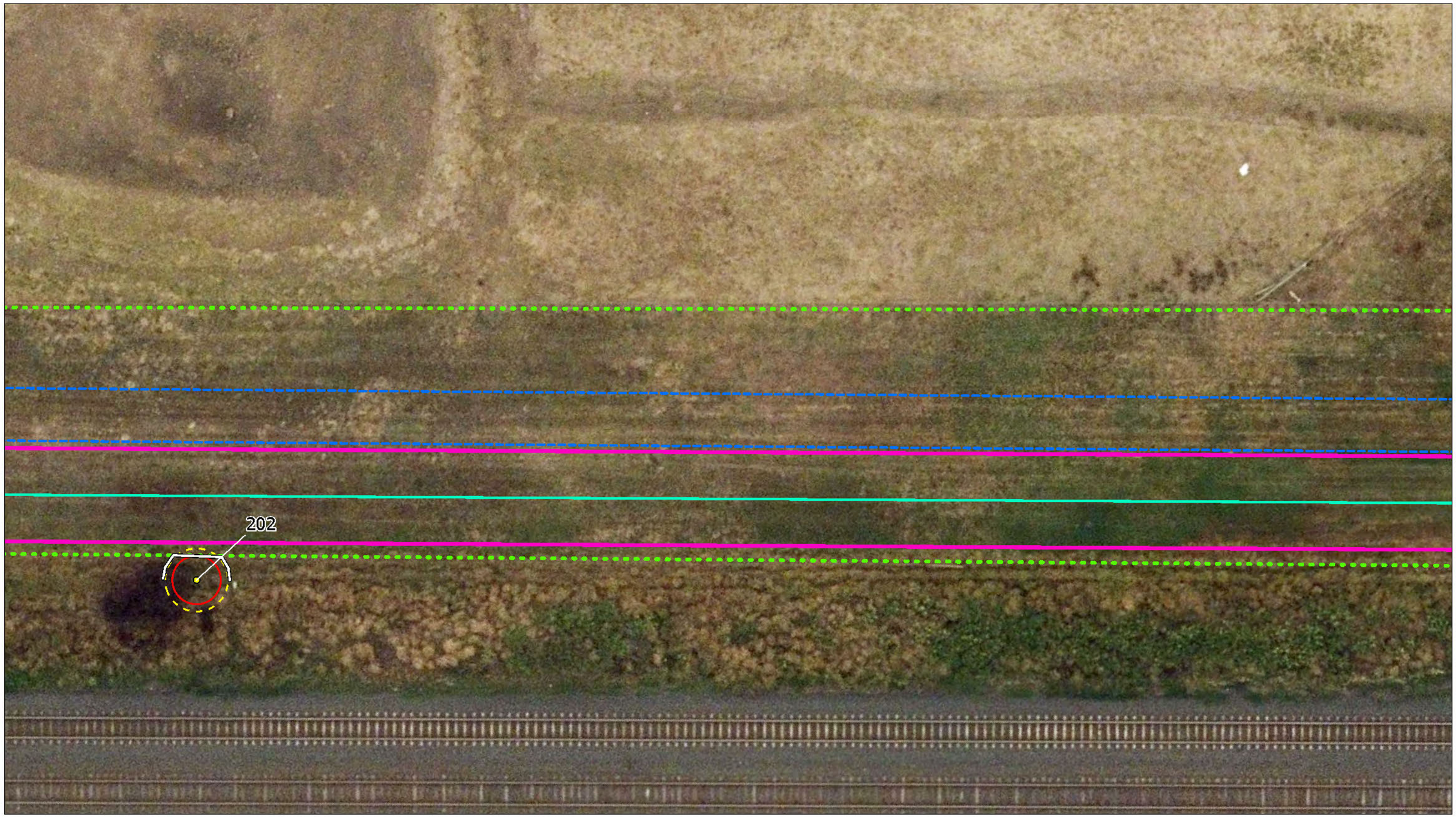


Tree Management & Protection Plan

Aurora to Bald Hill NDW Main
Craigieburn 3064 to Wallan 3756

Map 9 of 111

Project Code:300250055
Drawn By: DS, Checked By: MH
Date: 2025-10-23
Revision: B

Legend

Construction Corridor Alignment
- Construction Boundary
- Temporary Access Corridor
- Proposed Access Track
- Excavation Zone
- Plant Nursery Alignment
- Trenchless Shafts and Working Areas
- Indicative Shared User Path

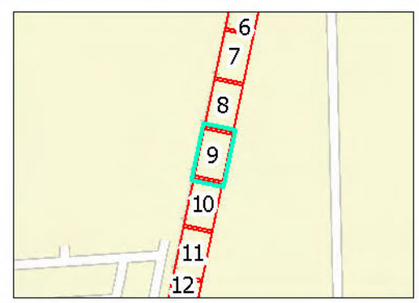
Tree
- Retain (Arboricultural data)
- Retain (Ecology data)
- Retain with supervision (Arboricultural data)
- Retain with supervision (Ecology data)
- Remove (Arboricultural data)
- Remove (Ecology data)
- Absent at time of assessment

Root Zones
- NRZ
- SRZ
- TPZ Fencing

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. MetroMap 2025.

0 2.5 5 7.5 10 Metres
Scale at A3: 1:280



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Tree Management & Protection Plan

Aurora to Bald Hill NDW Main
Craigieburn 3064 to Wallan 3756

Map 10 of 111

Project Code:300250055
Drawn By: DS, Checked By: MH
Date: 2025.10.23
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Stantec

Legend

Construction Corridor Alignment
- Construction Boundary
- Temporary Access Corridor
- Proposed Access Track
- Excavation Zone
- Extent of Transplanting
- Trenchless Shafts and Working Areas
- Indicative Shared User Path

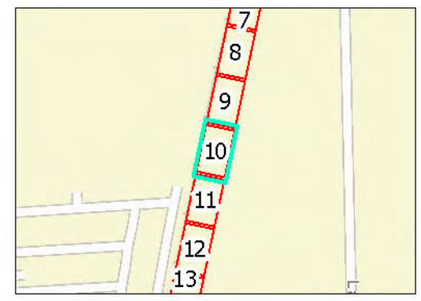
Tree
- Retain (Arboricultural data)
- Retain (Ecology data)
- Retain with supervision (Arboricultural data)
- Retain with supervision (Ecology data)
- Remove (Arboricultural data)
- Remove (Ecology data)
- Absent at time of assessment

Root Zones
- NRZ
- SRZ
- TPZ Fencing

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. MetroMap 2025.

0 2.5 5 7.5 10 Metres
Scale at A3: 1:280



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Tree Management & Protection Plan

Aurora to Bald Hill NDW Main
Craigieburn 3064 to Wallan 3756

Map 11 of 111

Project Code:300250055
Drawn By: DS, Checked By: MH
Date: 2025.10.31
Revision: B

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Stantec

Legend

Construction Corridor Alignment
- Construction Boundary
- Temporary Access Corridor
- Proposed Access Track
- Excavation Zone
- Trenchless Shafts and Working Areas
- Indicative Shared User Path

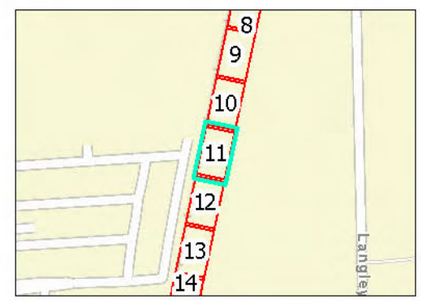
Tree
- Retain (Arboricultural data)
- Retain (Ecology data)
- Retain with supervision (Arboricultural data)
- Retain with supervision (Ecology data)
- Remove (Arboricultural data)
- Remove (Ecology data)
- Absent at time of assessment

Root Zones
- NRZ
- SRZ
- TPZ Fencing

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. MetroMap 2025.

0 2.5 5 7.5 10 Metres
Scale at A3: 1:280



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Tree Management & Protection Plan

Aurora to Bald Hill NDW Main
Craigieburn 3064 to Wallan 3756

Map 12 of 111

Project Code:300250055
Drawn By: DS, Checked By: MH
Date: 2025.10.23
Revision: B

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Legend

Construction Corridor Alignment
- Construction Boundary
- Temporary Access Corridor
- Proposed Access Track
- Excavation Zone
- Trenchless Shafts and Working Areas
- Indicative Shared User Path

Tree
- Retain (Arboricultural data)
- Retain (Ecology data)
- Retain with supervision (Arboricultural data)
- Retain with supervision (Ecology data)
- Remove (Arboricultural data)
- Remove (Ecology data)
- Absent at time of assessment

Root Zones
- NRZ
- SRZ
- TPZ Fencing

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. MetroMap 2025.

0 2.5 5 7.5 10 Metres
Scale at A3: 1:260



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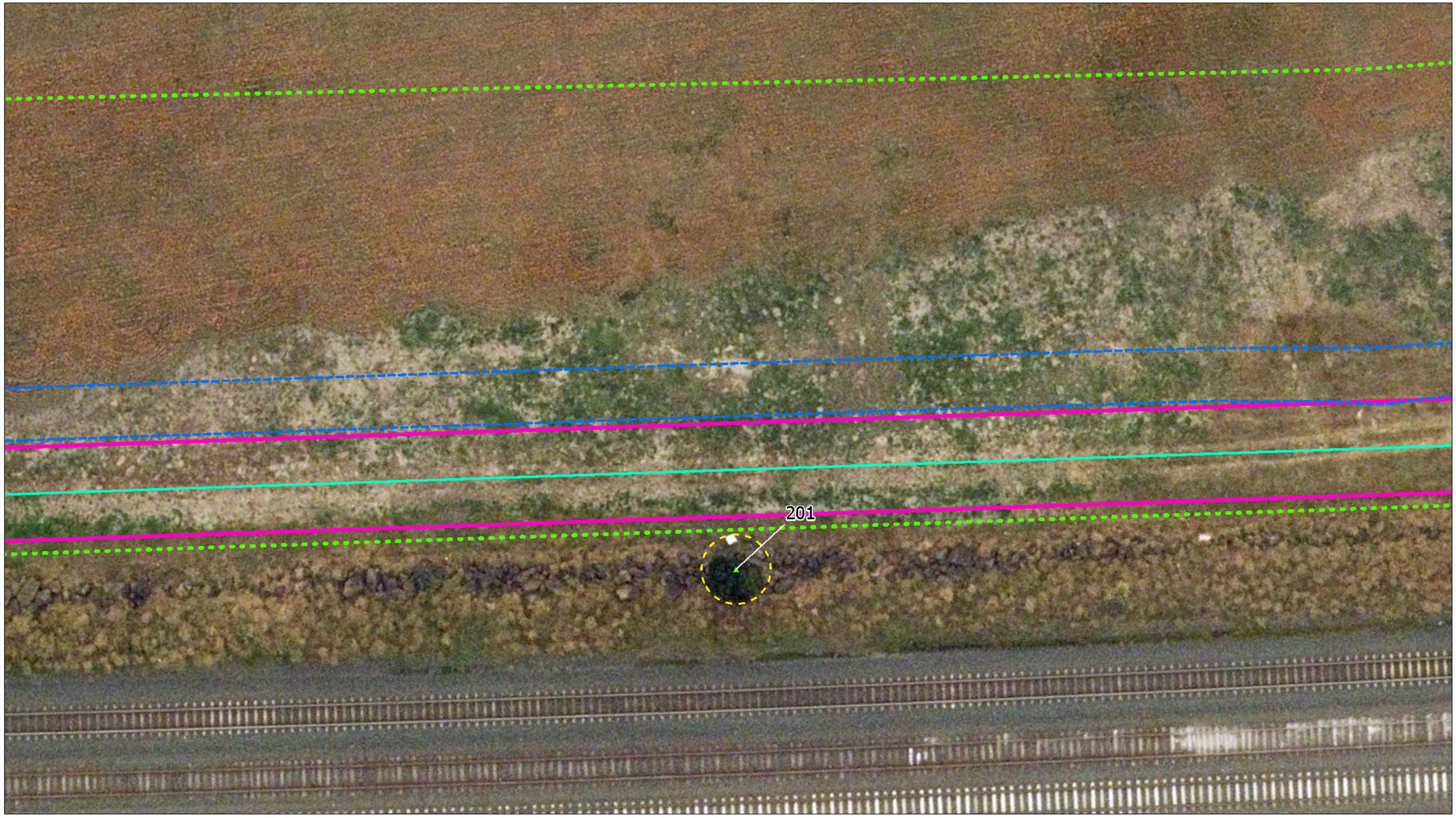


Tree Management & Protection Plan

Aurora to Bald Hill NDW Main
Craigieburn 3064 to Wallan 3756

Map 13 of 111

Project Code:300250055
Drawn By: DS, Checked By: MH
Date: 2025.10.23
Revision: B

Legend

Construction Corridor Alignment
- Construction Boundary
- Temporary Access Corridor
- Proposed Access Track
- Excavation Zone
- Extent of Impact
- Trenchless Shafts and Working Areas
- Indicative Shared User Path

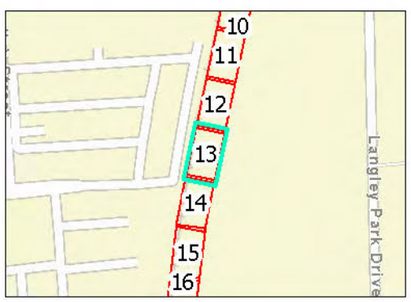
Tree
- Retain (Arboricultural data)
- Retain (Ecology data)
- Retain with supervision (Arboricultural data)
- Retain with supervision (Ecology data)
- Remove (Arboricultural data)
- Remove (Ecology data)
- Absent at time of assessment

Root Zones
- NRZ
- SRZ
- TPZ Fencing

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. MetroMap 2025.

0 2.5 5 7.5 10 Metres
Scale at A3: 1:280



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Tree Management & Protection Plan

Aurora to Bald Hill NDW Main
Craigieburn 3064 to Wallan 3756

Map 14 of 111

Project Code:300250055
Drawn By: DS, Checked By: MH
Date: 2025-10-23
Revision: B

Legend

Construction Corridor Alignment
- Construction Boundary
- Temporary Access Corridor
- Proposed Access Track
- Excavation Zone
- Trenchless Shafts and Working Areas
- Indicative Shared User Path

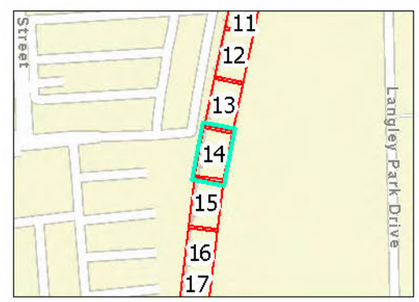
Tree
- Retain (Arboricultural data)
- Retain (Ecology data)
- Retain with supervision (Arboricultural data)
- Retain with supervision (Ecology data)
- Remove (Arboricultural data)
- Remove (Ecology data)
- Absent at time of assessment

Root Zones
- NRZ
- SRZ
- TPZ Fencing

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. MetroMap 2025.

0 2.5 5 7.5 10
Metres
Scale at A3: 1:280



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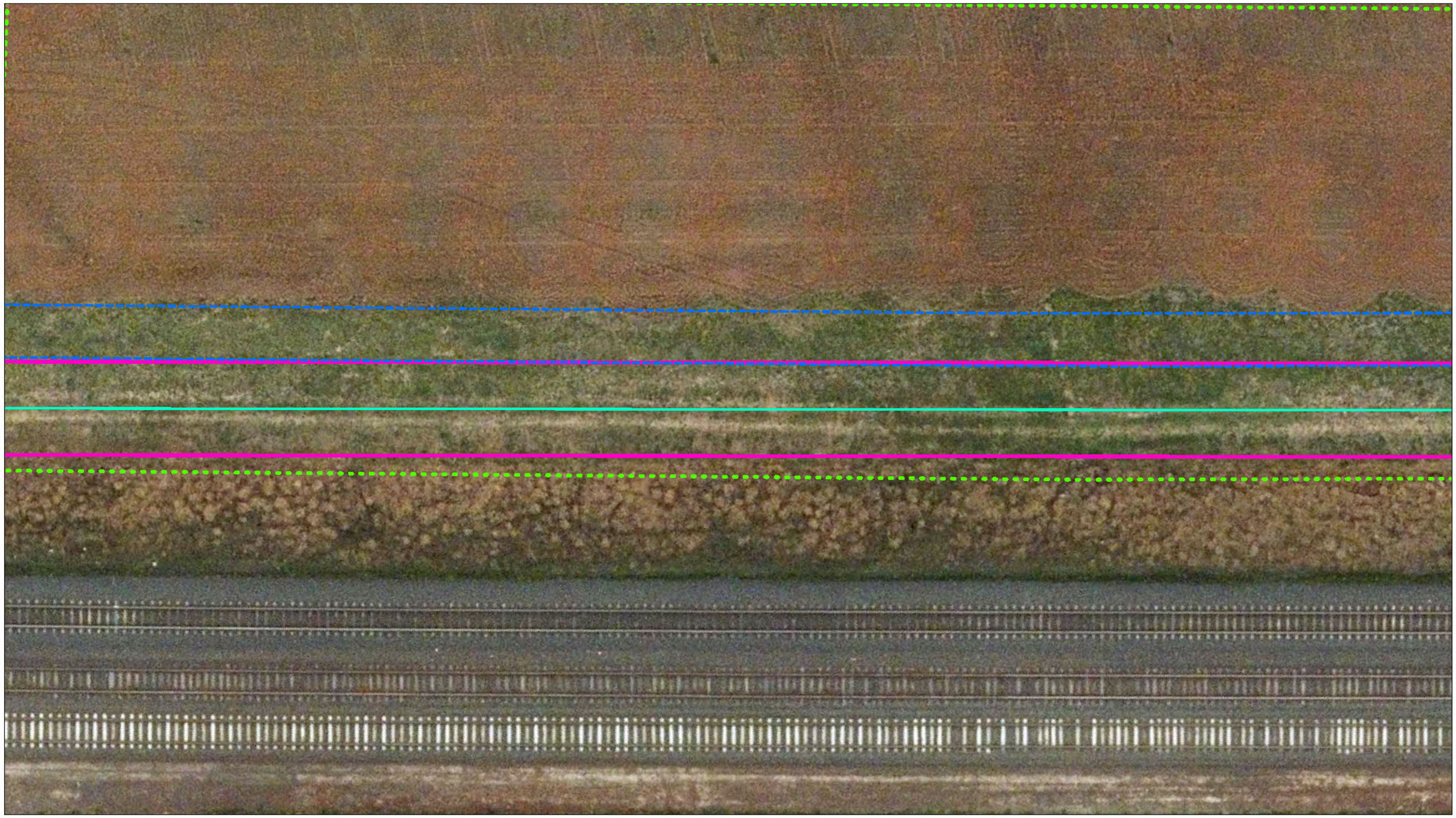

Tree Management & Protection Plan

Aurora to Bald Hill NDW Main
Craigieburn 3064 to Wallan 3756

Map 15 of 111

Project Code:300250055
Drawn By: DS, Checked By: MH
Date: 2025.10.23
Revision: B

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Legend

Construction Corridor Alignment
- Construction Boundary
- Temporary Access Corridor
- Proposed Access Track
- Excavation Zone
- Extent of Hardstand
- Trenchless Shafts and Working Areas
- Indicative Shared User Path

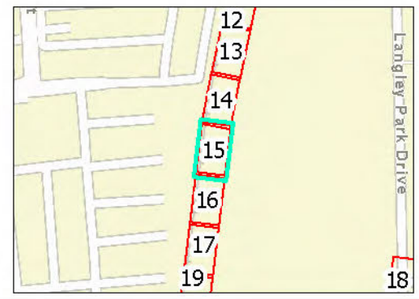
Tree
- Retain (Arboricultural data)
- Retain (Ecology data)
- Retain with supervision (Arboricultural data)
- Retain with supervision (Ecology data)
- Remove (Arboricultural data)
- Remove (Ecology data)
- Absent at time of assessment

Root Zones
- NRZ
- SRZ
- TPZ Fencing

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. MetroMap 2025.

0 2.5 5 7.5 10 Metres
Scale at A3: 1:280



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Tree Management & Protection Plan

Aurora to Bald Hill NDW Main
Craigieburn 3064 to Wallan 3756

Map 16 of 111

Project Code:300250055
Drawn By: DS, Checked By: MH
Date: 2025-10-23
Revision: B

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Legend

Construction Corridor Alignment
- Construction Boundary
- Temporary Access Corridor
- Proposed Access Track
- Excavation Zone
- Trenchless Shafts and Working Areas
- Indicative Shared User Path

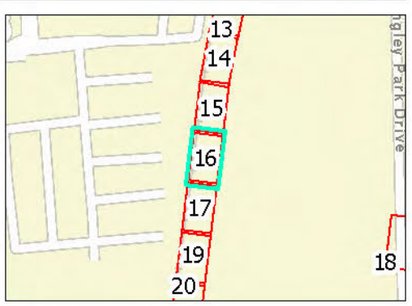
Tree
- Retain (Arboricultural data)
- Retain (Ecology data)
- Retain with supervision (Arboricultural data)
- Retain with supervision (Ecology data)
- Remove (Arboricultural data)
- Remove (Ecology data)
- Absent at time of assessment

Root Zones
- NRZ
- SRZ
- TPZ Fencing

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. MetroMap 2025.

0 2.5 5 7.5 10 Metres
Scale at A3: 1:280



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Tree Management & Protection Plan

Aurora to Bald Hill NDW Main
Craigieburn 3064 to Wallan 3756

Map 17 of 111

Project Code:300250055
Drawn By: DS, Checked By: MH
Date: 2025-10-23
Revision: B

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Legend

Construction Corridor Alignment

- Construction Boundary
- Temporary Access Corridor
- Proposed Access Track
- Excavation Zone
- Extent of Plantation
- Trenchless Shafts and Working Areas
- Indicative Shared User Path

Tree

- Retain (Arboricultural data)
- Retain (Ecology data)
- Retain with supervision (Arboricultural data)
- Retain with supervision (Ecology data)
- Remove (Arboricultural data)
- Remove (Ecology data)
- Absent at time of assessment

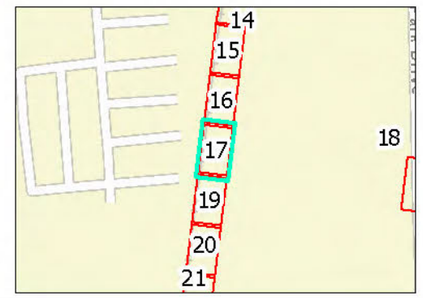
Root Zones

- NRZ
- SRZ
- TPZ Fencing

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. MetroMap 2025.

0 2.5 5 7.5 10 Metres
Scale at A3: 1:280



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Tree Management & Protection Plan

Aurora to Bald Hill NDW Main
Craigieburn 3064 to Wallan 3756

Map 18 of 111

Project Code:300250055
Drawn By: DS, Checked By: MH
Date: 10/25 (A3)
Revision: B

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Legend

Construction Corridor Alignment
- Construction Boundary
- Temporary Access Corridor
- Proposed Access Track
- Excavation Zone
- Trenchless Shafts and Working Areas
- Indicative Shared User Path

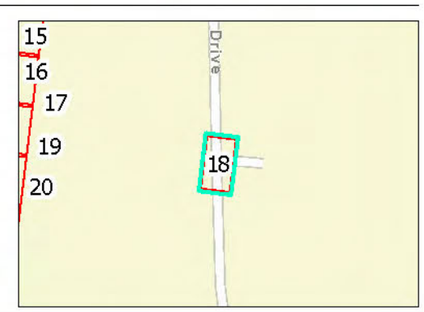
Tree
- Retain (Arboricultural data)
- Retain (Ecology data)
- Retain with supervision (Arboricultural data)
- Retain with supervision (Ecology data)
- Remove (Arboricultural data)
- Remove (Ecology data)
- Absent at time of assessment

Root Zones
- NRZ
- SRZ
- TPZ Fencing

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. MetroMap 2025.

0 2.5 5 7.5 10 Metres
Scale at A3: 1:280



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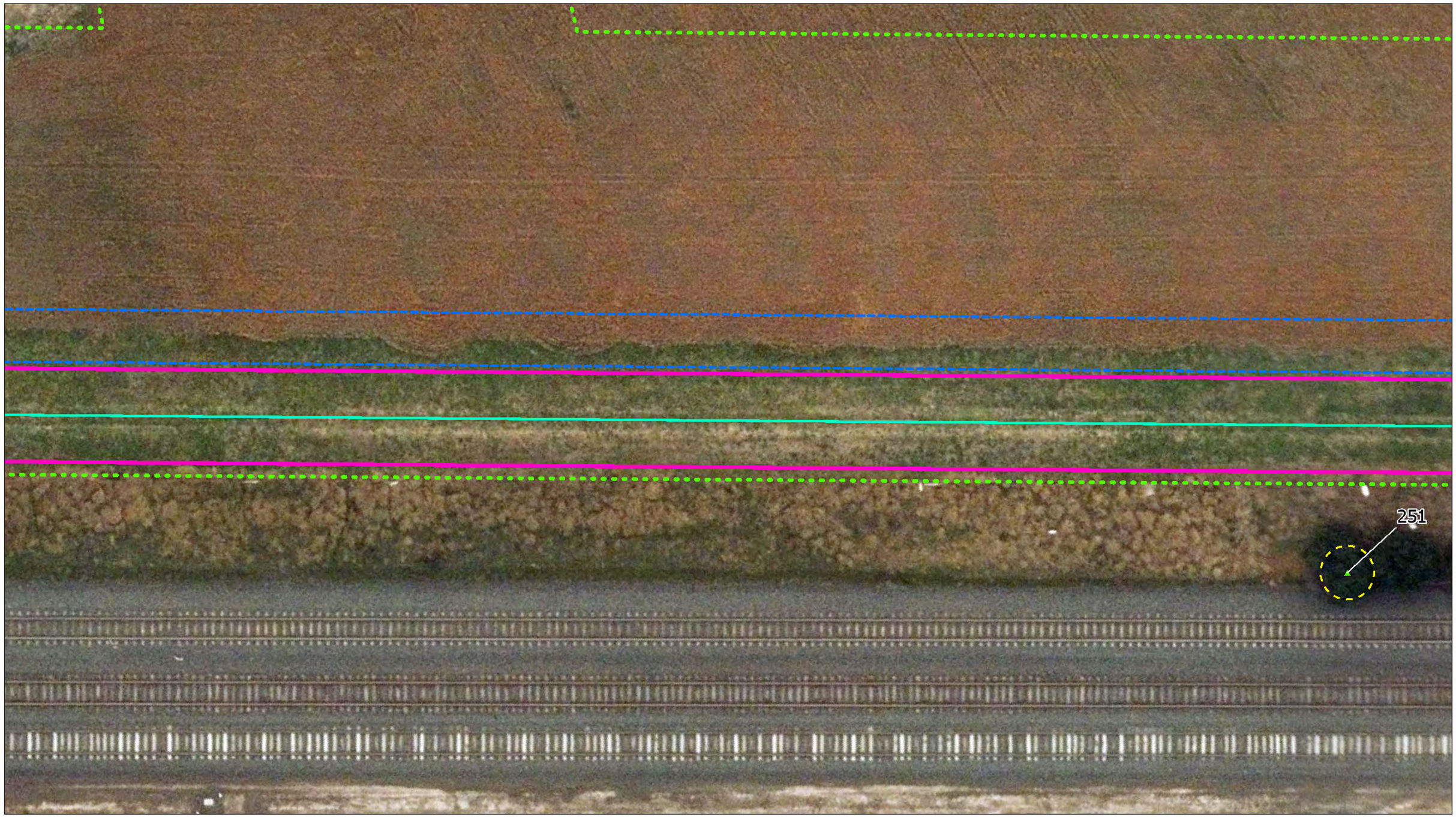

Tree Management & Protection Plan

Aurora to Bald Hill NDW Main
Craigieburn 3064 to Wallan 3756

Map 19 of 111

Project Code:300250055
Drawn By: DS, Checked By: MH
Date: 2025.10.23
Revision: B

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Stantec

Legend

Construction Corridor Alignment
- Construction Boundary
- Temporary Access Corridor
- Proposed Access Track
- Excavation Zone
- Spoil Stockpile Area
- Trenchless Shafts and Working Areas
- Indicative Shared User Path

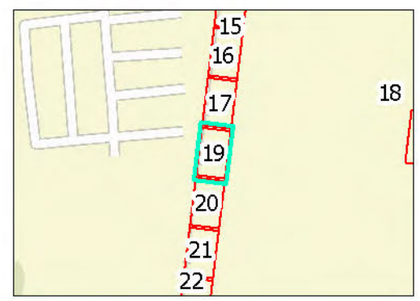
Tree
- Retain (Arboricultural data)
- Retain (Ecology data)
- Retain with supervision (Arboricultural data)
- Retain with supervision (Ecology data)
- Remove (Arboricultural data)
- Remove (Ecology data)
- Absent at time of assessment

Root Zones
- NRZ
- SRZ
- TPZ Fencing

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. MetroMap 2025.

0 2.5 5 7.5 10 Metres
Scale at A3: 1:280



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Tree Management & Protection Plan

Aurora to Bald Hill NDW Main
Craigieburn 3064 to Wallan 3756

Map 20 of 111

Project Code:300250055
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Legend

Construction Corridor Alignment
- Construction Boundary
- Temporary Access Corridor
- Proposed Access Track
- Excavation Zone
- Trenchless Shafts and Working Areas
- Indicative Shared User Path

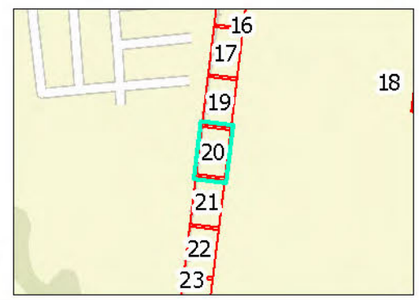
Tree
- Retain (Arboricultural data)
- Retain (Ecology data)
- Retain with supervision (Arboricultural data)
- Retain with supervision (Ecology data)
- Remove (Arboricultural data)
- Remove (Ecology data)
- Absent at time of assessment

Root Zones
- NRZ
- SRZ
- TPZ Fencing

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. MetroMap 2025.

0 2.5 5 7.5 10 Metres
Scale at A3: 1:280



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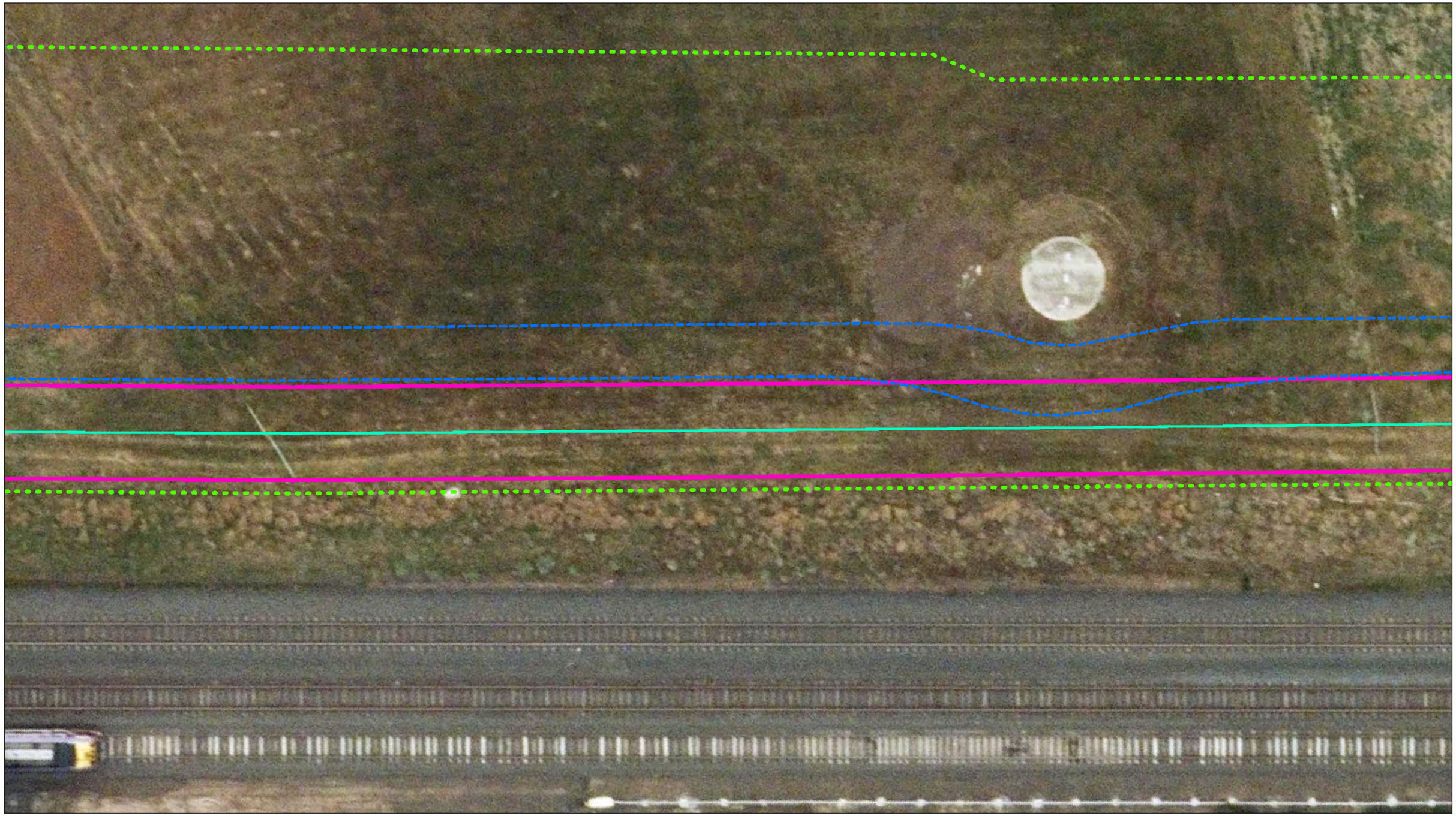


Tree Management & Protection Plan

Aurora to Bald Hill NDW Main
Craigieburn 3064 to Wallan 3756

Map 21 of 111

Project Code:300250055
Drawn By: DS, Checked By: MH
Date: 2025-10-23
Revision: B

Legend

Construction Corridor Alignment
- Construction Boundary
- Temporary Access Corridor
- Proposed Access Track
- Excavation Zone
- Planting Alignments
- Trenchless Shafts and Working Areas
- Indicative Shared User Path

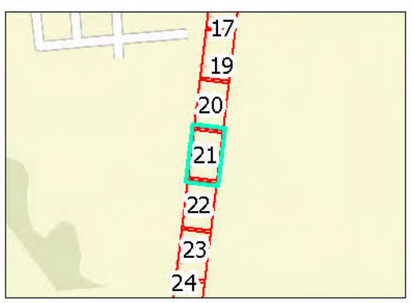
Tree
- Retain (Arboricultural data)
- Retain (Ecology data)
- Retain with supervision (Arboricultural data)
- Retain with supervision (Ecology data)
- Remove (Arboricultural data)
- Remove (Ecology data)
- Absent at time of assessment

Root Zones
- NRZ
- SRZ
- TPZ Fencing

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. MetroMap 2025.

0 2.5 5 7.5 10 Metres
Scale at A3: 1:280



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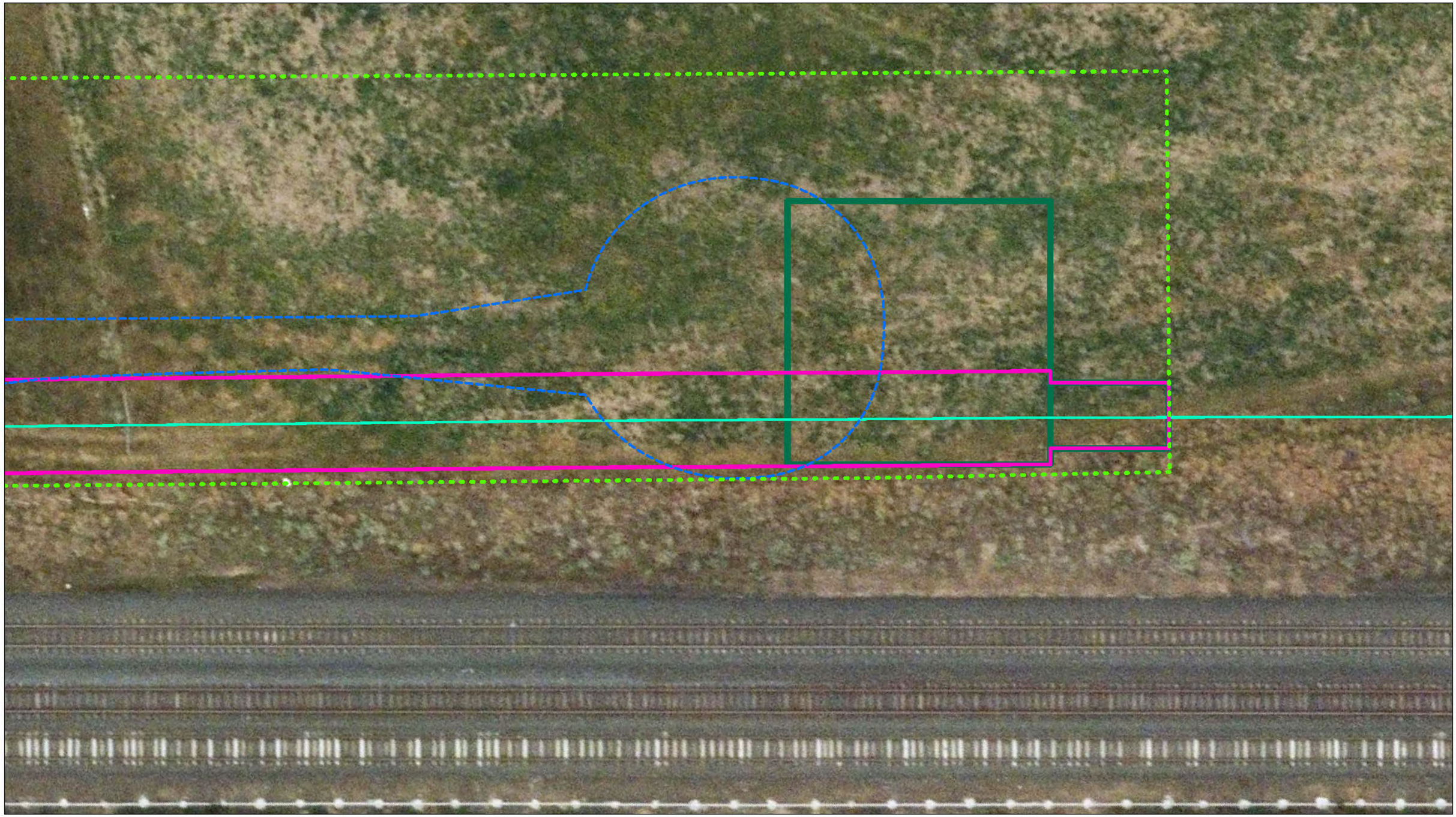


Tree Management & Protection Plan

Aurora to Bald Hill NDW Main
Craigieburn 3064 to Wallan 3756

Map 22 of 111

Project Code:300250055
Drawn By: DS, Checked By: MH
Date: 2025-10-23
Revision: B

Legend

Construction Corridor Alignment
- Construction Boundary
- Temporary Access Corridor
- Proposed Access Track
- Excavation Zone
- Plant Nursery Alignment
- Trenchless Shafts and Working Areas
- Indicative Shared User Path

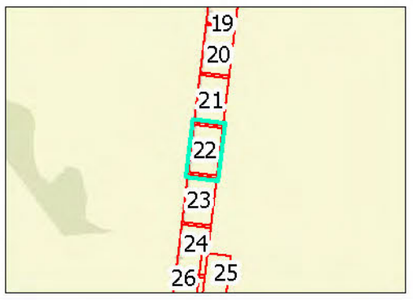
Tree
- Retain (Arboricultural data)
- Retain (Ecology data)
- Retain with supervision (Arboricultural data)
- Retain with supervision (Ecology data)
- Remove (Arboricultural data)
- Remove (Ecology data)
- Absent at time of assessment

Root Zones
- NRZ
- SRZ
- TPZ Fencing

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. MetroMap 2025.

0 2.5 5 7.5 10 Metres
Scale at A3: 1:280



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Tree Management & Protection Plan

Aurora to Bald Hill NDW Main
Craigieburn 3064 to Wallan 3756

Map 23 of 111

Project Code:300250055
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Date: 2025.10.23
Revision: B

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Legend

Construction Corridor Alignment
- Construction Boundary
- Temporary Access Corridor
- Proposed Access Track
- Excavation Zone
- Trenchless Shafts and Working Areas
- Indicative Shared User Path

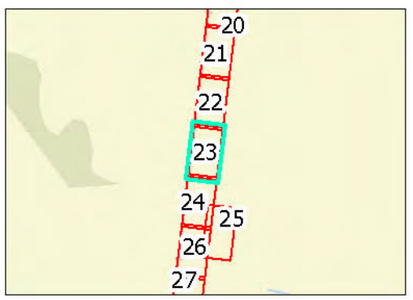
Tree
- Retain (Arboricultural data)
- Retain (Ecology data)
- Retain with supervision (Arboricultural data)
- Retain with supervision (Ecology data)
- Remove (Arboricultural data)
- Remove (Ecology data)
- Absent at time of assessment

Root Zones
- NRZ
- SRZ
- TPZ Fencing

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. MetroMap 2025.

0 2.5 5 7.5 10 Metres
Scale at A3: 1:260



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Tree Management & Protection Plan

Aurora to Bald Hill NDW Main
Craigieburn 3064 to Wallan 3756

Map 24 of 111

Project Code:300250055
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Legend

Construction Corridor Alignment
- Construction Boundary
- Temporary Access Corridor
- Proposed Access Track
- Excavation Zone
- Extent of Trenchless
- Trenchless Shafts and Working Areas
- Indicative Shared User Path

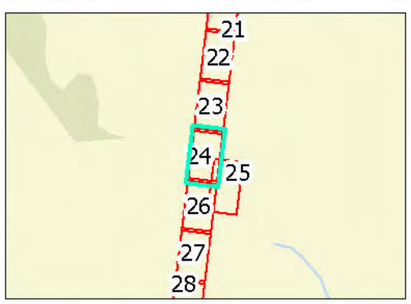
Tree
- Retain (Arboricultural data)
- Retain (Ecology data)
- Retain with supervision (Arboricultural data)
- Retain with supervision (Ecology data)
- Remove (Arboricultural data)
- Remove (Ecology data)
- Absent at time of assessment

Root Zones
- NRZ
- SRZ
- TPZ Fencing

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. MetroMap 2025.

0 2.5 5 7.5 10 Metres
Scale at A3: 1:280



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Tree Management & Protection Plan

Aurora to Bald Hill NDW Main
Craigieburn 3064 to Wallan 3756

Map 25 of 111

Project Code:300250055
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Stantec

Legend

Construction Corridor Alignment
- Construction Boundary
- Temporary Access Corridor
- Proposed Access Track
- Excavation Zone
- Extent of Trenchless Shafts and Working Areas
- Indicative Shared User Path

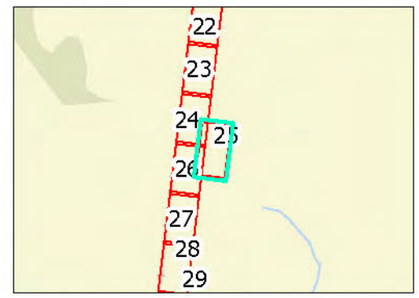
Tree
- Retain (Arboricultural data)
- Retain (Ecology data)
- Retain with supervision (Arboricultural data)
- Retain with supervision (Ecology data)
- Remove (Arboricultural data)
- Remove (Ecology data)
- Absent at time of assessment

Root Zones
- NRZ
- SRZ
- TPZ Fencing

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. MetroMap 2025.

0 2.5 5 7.5 10 Metres
Scale at A3: 1:280



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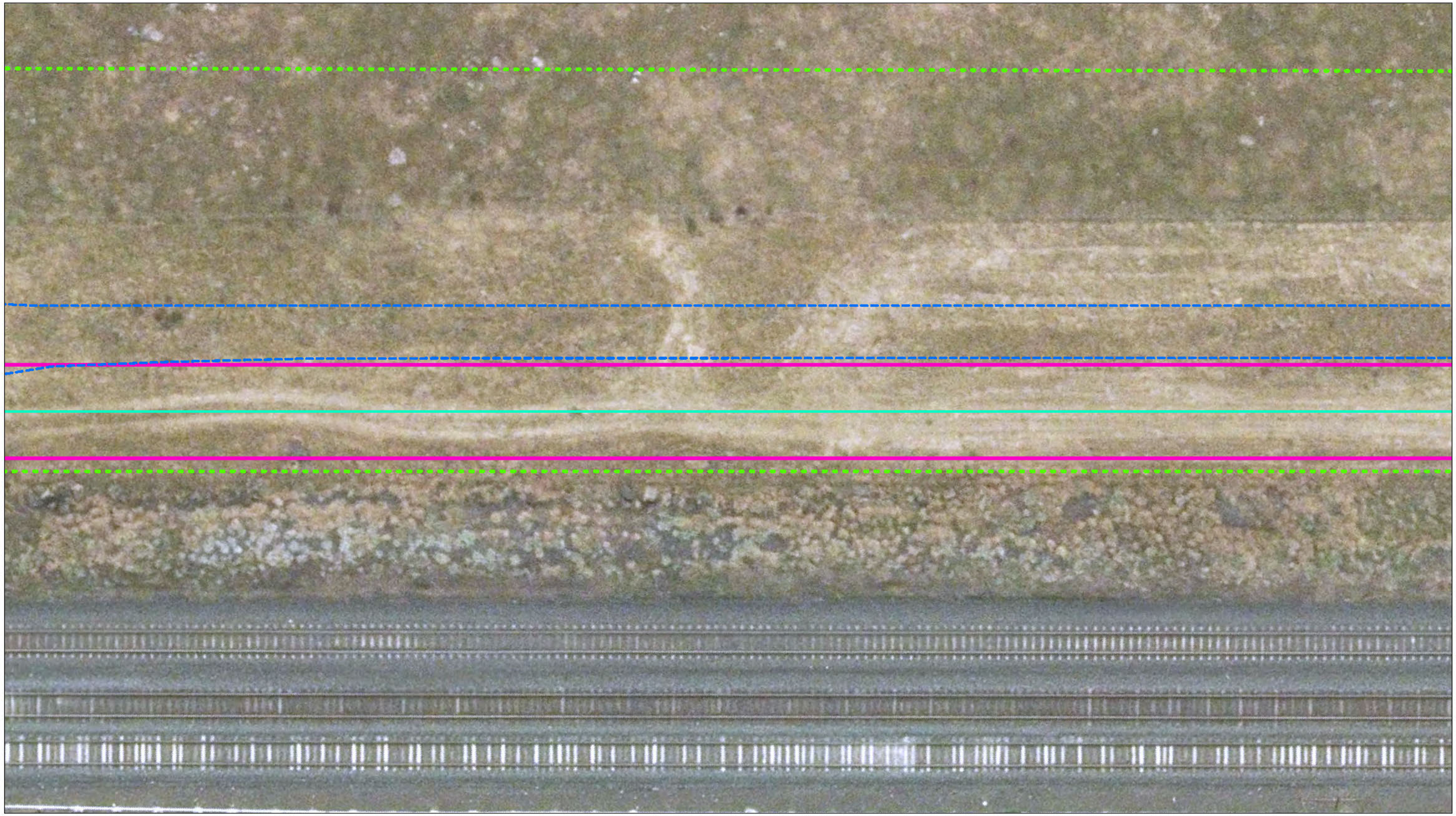

Tree Management & Protection Plan

Aurora to Bald Hill NDW Main
Craigieburn 3064 to Wallan 3756

Map 26 of 111

Project Code:300250055
Drawn By: DS, Checked By: MH
Date: 2025.10.23
Revision B

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Legend

Construction Corridor Alignment
- Construction Boundary
- Temporary Access Corridor
- Proposed Access Track
- Excavation Zone
- Trenchless Shafts and Working Areas
- Indicative Shared User Path

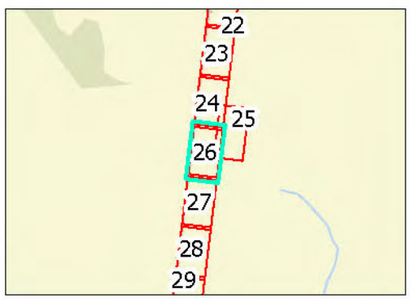
Tree
- Retain (Arboricultural data)
- Retain (Ecology data)
- Retain with supervision (Arboricultural data)
- Retain with supervision (Ecology data)
- Remove (Arboricultural data)
- Remove (Ecology data)
- Absent at time of assessment

Root Zones
- NRZ
- SRZ
- TPZ Fencing

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. MetroMap 2025.

0 2.5 5 7.5 10 Metres
Scale at A3: 1:280



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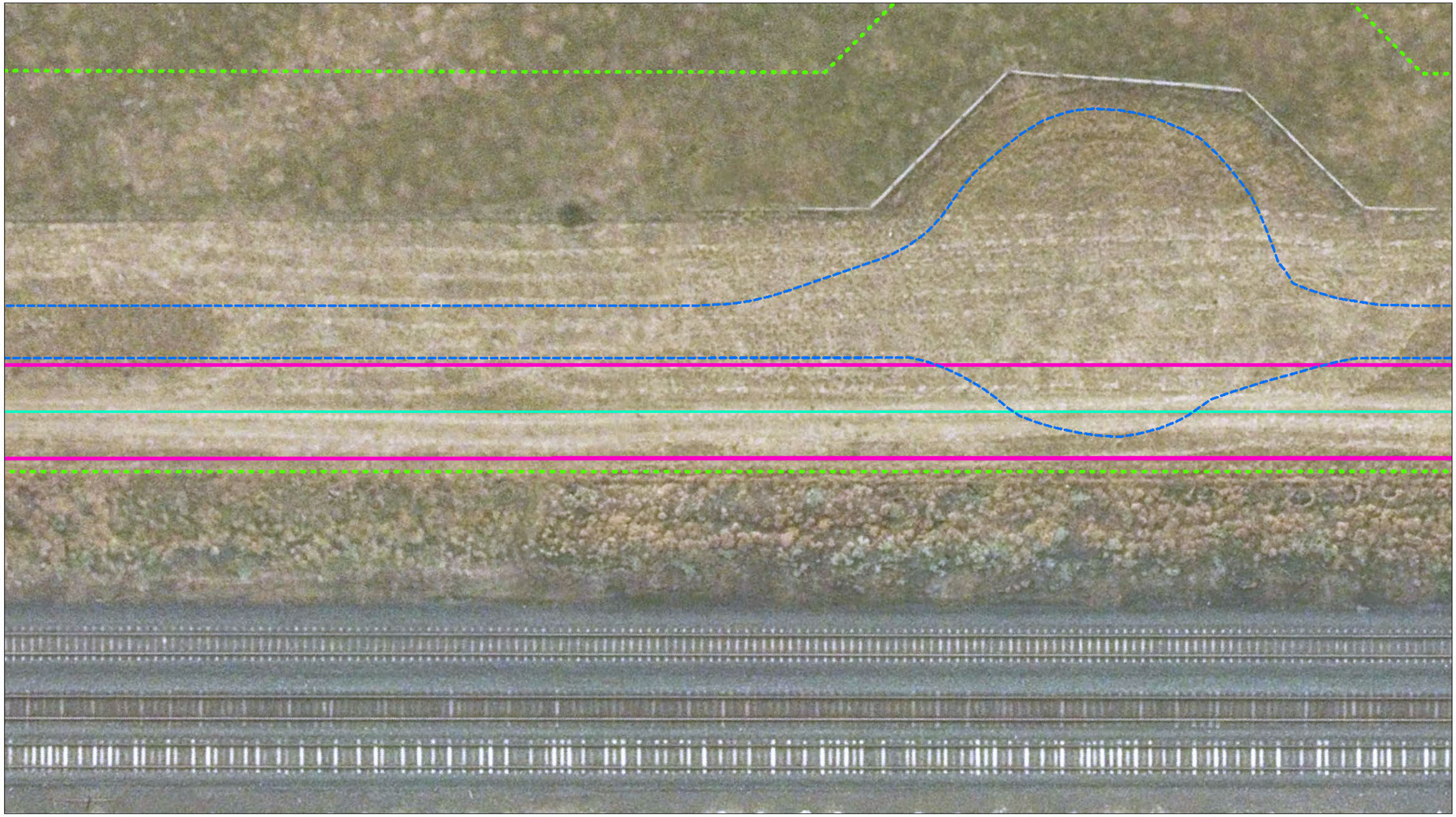

Tree Management & Protection Plan

Aurora to Bald Hill NDW Main
Craigieburn 3064 to Wallan 3756

Map 27 of 111

Project Code:300250055
Drawn By: DS, Checked By: MH
Date: 2025.10.23
Revision: B

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Legend

Construction Corridor Alignment
- Construction Boundary
- Temporary Access Corridor
- Proposed Access Track
- Excavation Zone
- Spoil Stockpile Area
- Trenchless Shafts and Working Areas
- Indicative Shared User Path

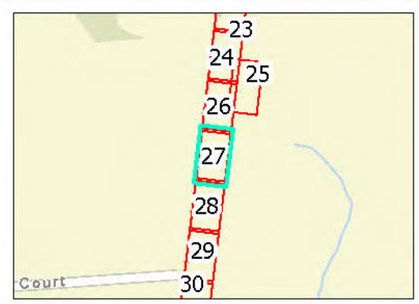
Tree
- Retain (Arboricultural data)
- Retain (Ecology data)
- Retain with supervision (Arboricultural data)
- Retain with supervision (Ecology data)
- Remove (Arboricultural data)
- Remove (Ecology data)
- Absent at time of assessment

Root Zones
- NRZ
- SRZ
- TPZ Fencing

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. MetroMap 2025.

0 2.5 5 7.5 10 Metres
Scale at A3: 1:280



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Tree Management & Protection Plan

Aurora to Bald Hill NDW Main
Craigieburn 3064 to Wallan 3756

Map 28 of 111

Project Code:300250055
Drawn By: DS, Checked By: MH
Date: 2025.10.31
Revision: B

Legend

Construction Corridor Alignment
- Construction Boundary
- Temporary Access Corridor
- Proposed Access Track
- Excavation Zone
- Trenchless Shafts and Working Areas
- Indicative Shared User Path

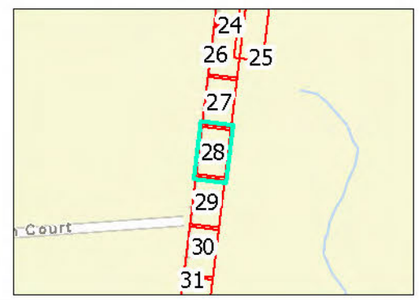
Tree
- Retain (Arboricultural data)
- Retain (Ecology data)
- Retain with supervision (Arboricultural data)
- Retain with supervision (Ecology data)
- Remove (Arboricultural data)
- Remove (Ecology data)
- Absent at time of assessment

Root Zones
- NRZ
- SRZ
- TPZ Fencing

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. MetroMap 2025.

0 2.5 5 7.5 10 Metres
Scale at A3: 1:260



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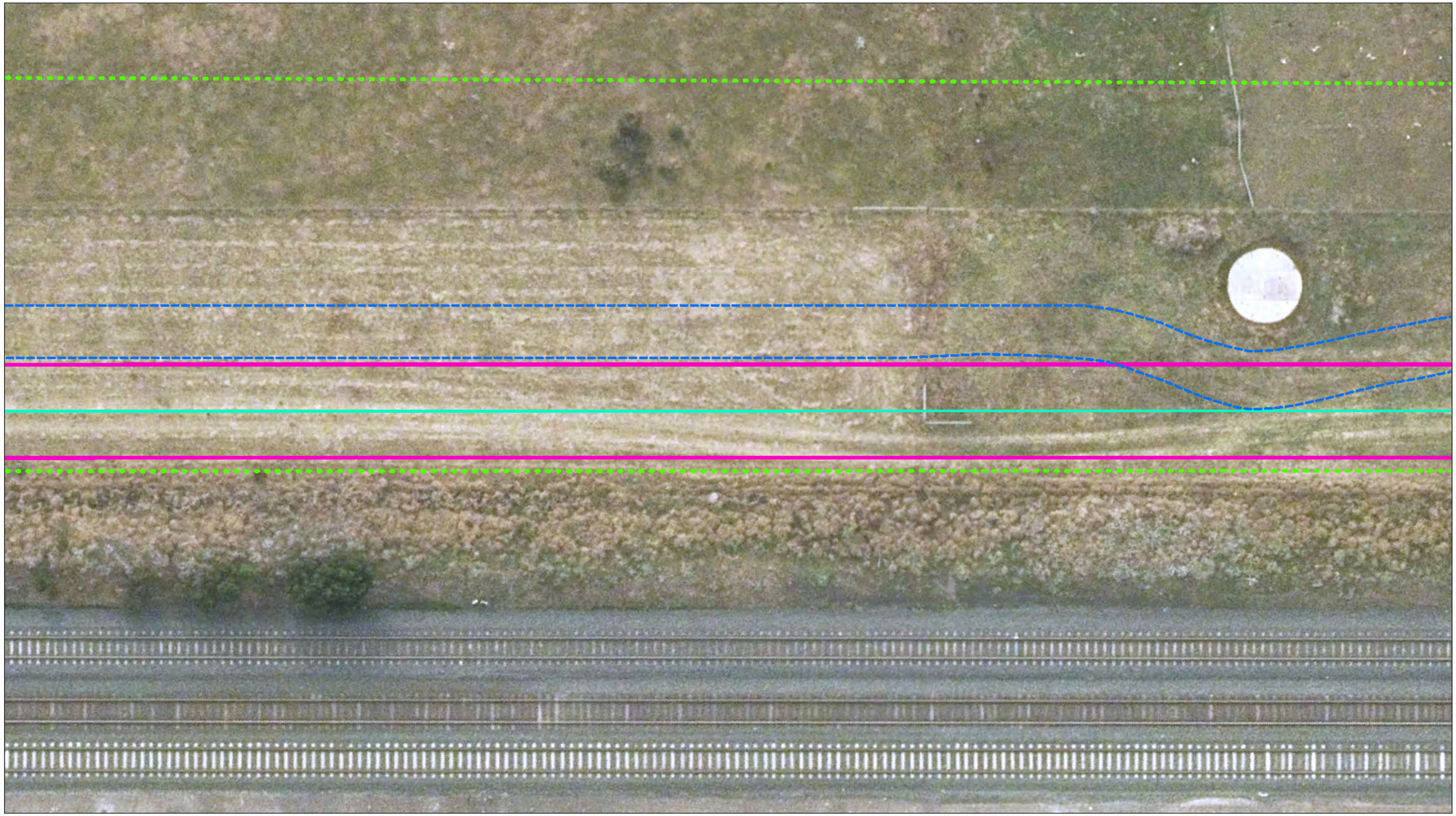

Tree Management & Protection Plan

Aurora to Bald Hill NDW Main
Craigieburn 3064 to Wallan 3756

Map 29 of 111

Project Code:300250055
Drawn By: DS, Checked By: MH
Date: 2025.10.23
Revision: B

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Legend

Construction Corridor Alignment
- Construction Boundary
- Temporary Access Corridor
- Proposed Access Track
- Excavation Zone
- Trenchless Shafts and Working Areas
- Indicative Shared User Path

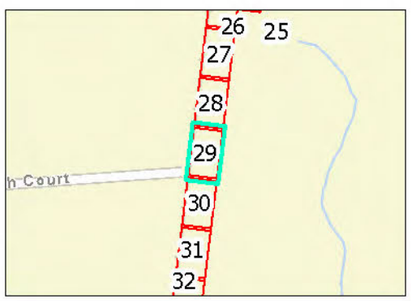
Tree
- Retain (Arboricultural data)
- Retain (Ecology data)
- Retain with supervision (Arboricultural data)
- Retain with supervision (Ecology data)
- Remove (Arboricultural data)
- Remove (Ecology data)
- Absent at time of assessment

Root Zones
- NRZ
- SRZ
- TPZ Fencing

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. MetroMap 2025.

0 2.5 5 7.5 10 Metres
Scale at A3: 1:280



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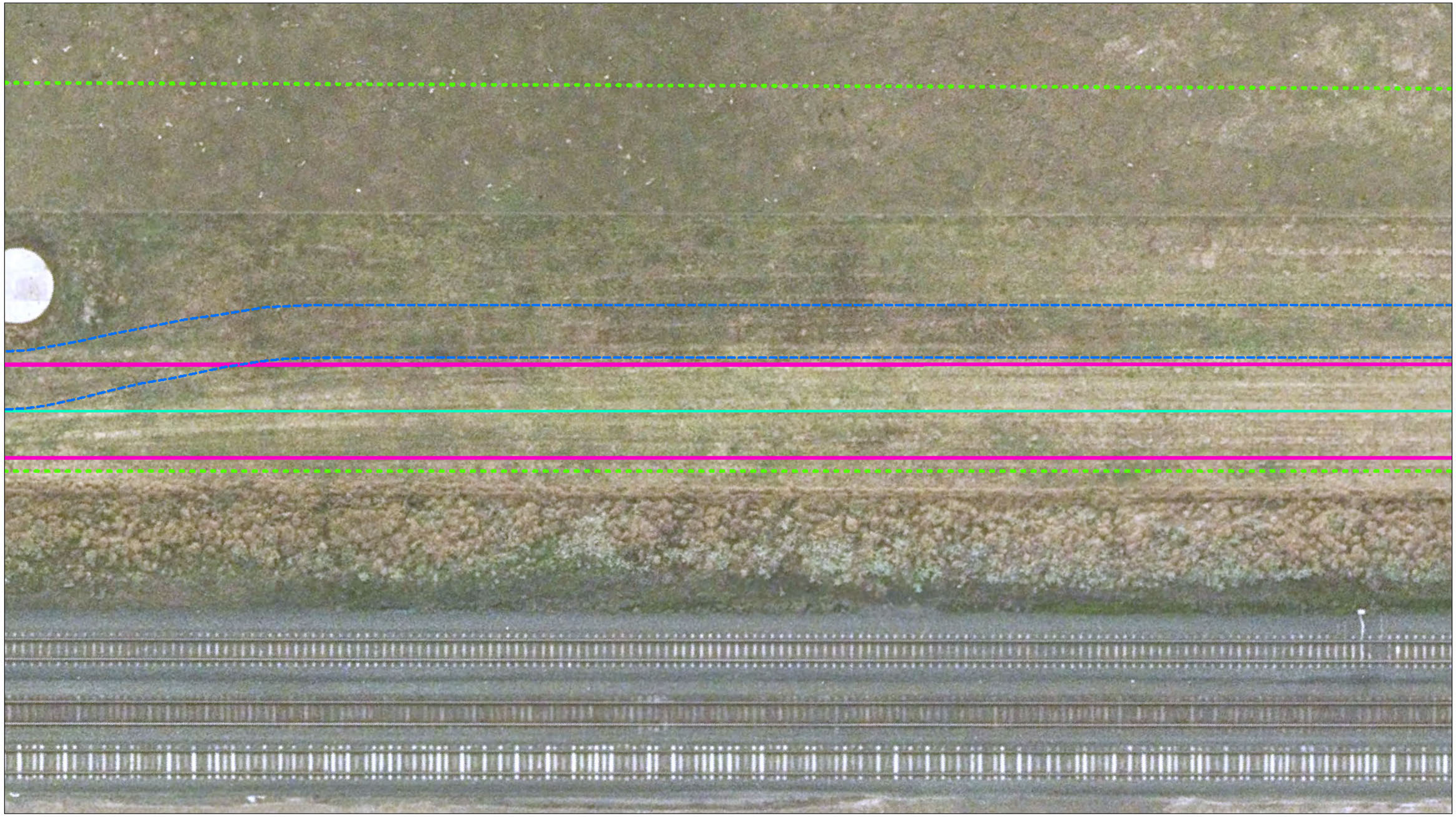

Tree Management & Protection Plan

Aurora to Bald Hill NDW Main
Craigieburn 3064 to Wallan 3756

Map 30 of 111

Project Code:300250055
Drawn By: DS, Checked By: MH
Date: 2025-10-23
Revision: B

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Legend

Construction Corridor Alignment

- Construction Boundary
- Temporary Access Corridor
- Proposed Access Track
- Excavation Zone
- Trenchless Shafts and Working Areas
- Indicative Shared User Path

Tree

- Retain (Arboricultural data)
- Retain (Ecology data)
- Retain with supervision (Arboricultural data)
- Retain with supervision (Ecology data)
- Remove (Arboricultural data)
- Remove (Ecology data)
- Absent at time of assessment

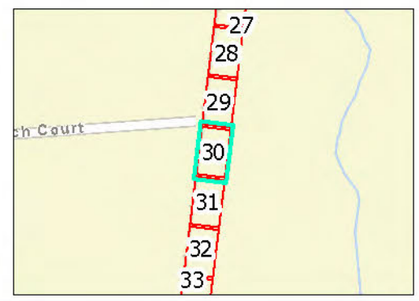
Root Zones

- NRZ
- SRZ
- TPZ Fencing

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. MetroMap 2025.

0 2.5 5 7.5 10 Metres
Scale at A3: 1:260



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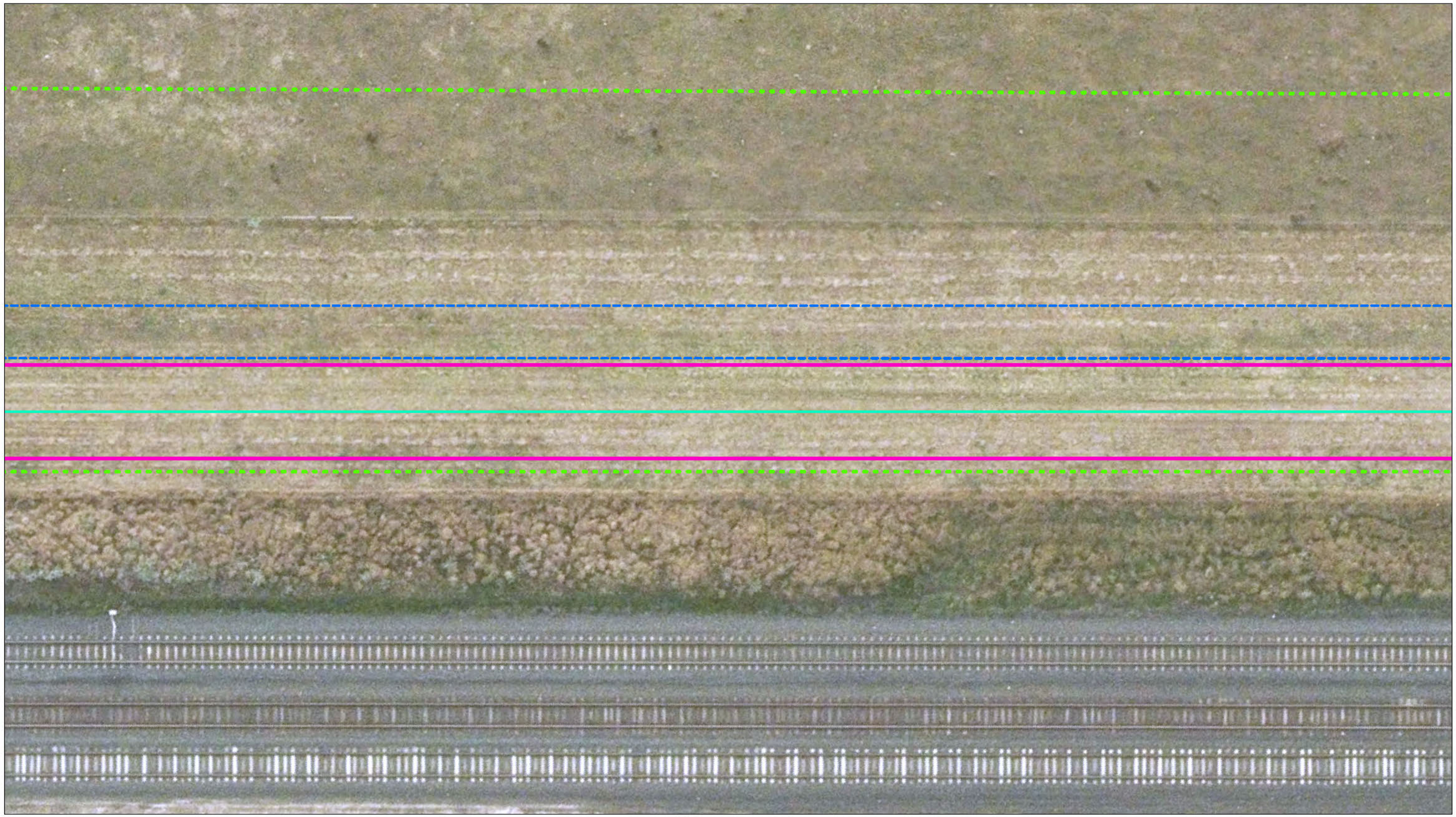

Tree Management & Protection Plan

Aurora to Bald Hill NDW Main
Craigieburn 3064 to Wallan 3756

Map 31 of 111

Project Code:300250055
Drawn By: DS, Checked By: MH
Date: 2025-10-23
Revision: B

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Legend

Construction Corridor Alignment
- Construction Boundary
- Temporary Access Corridor
- Proposed Access Track
- Excavation Zone
- Trenchless Shafts and Working Areas
- Indicative Shared User Path

Tree
- Retain (Arboricultural data)
- Retain (Ecology data)
- Retain with supervision (Arboricultural data)
- Retain with supervision (Ecology data)
- Remove (Arboricultural data)
- Remove (Ecology data)
- Absent at time of assessment

Root Zones
- NRZ
- SRZ
- TPZ Fencing

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. MetroMap 2025.

0 2.5 5 7.5 10 Metres
Scale at A3: 1:280



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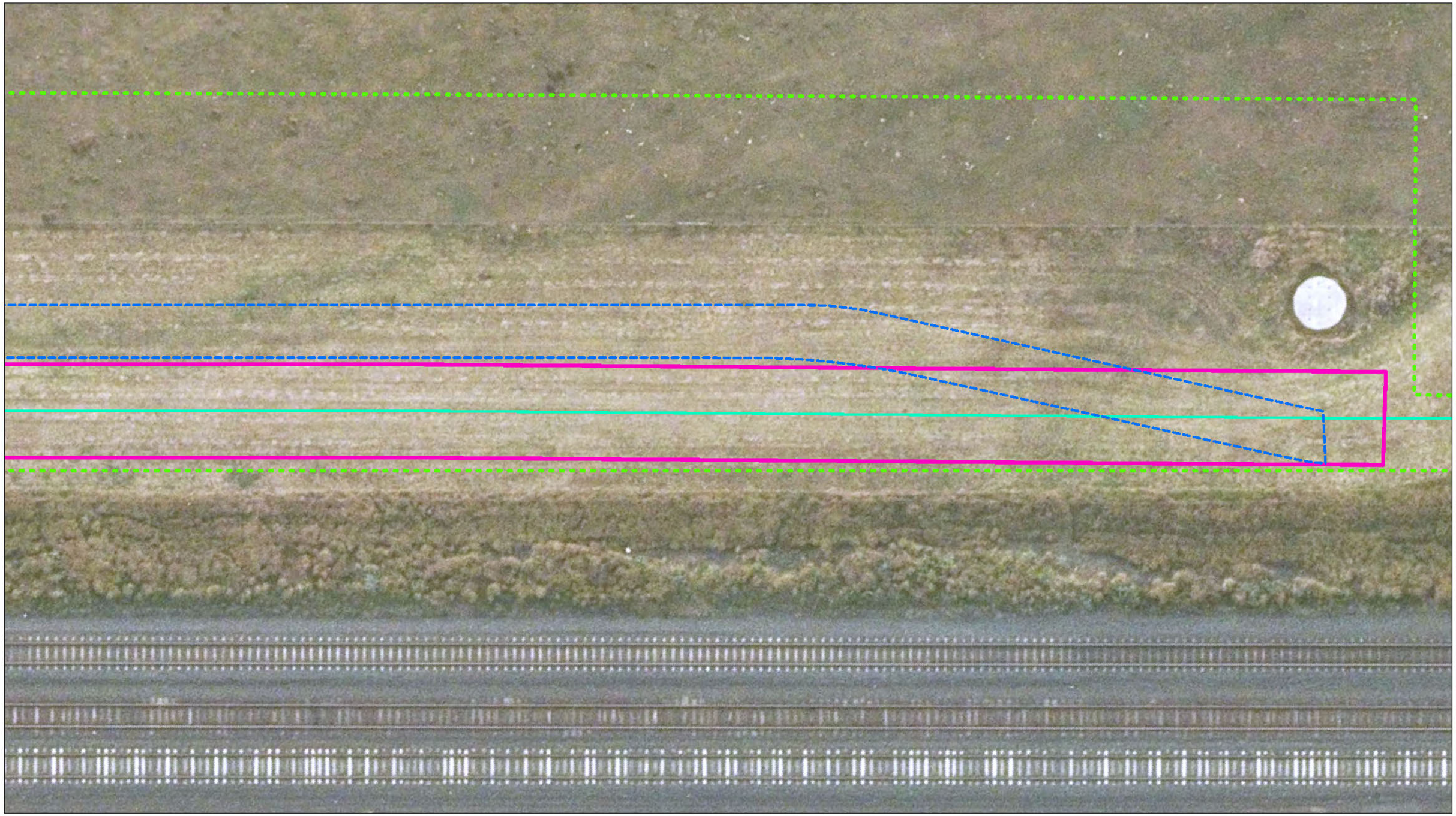


Tree Management & Protection Plan

Aurora to Bald Hill NDW Main
Craigieburn 3064 to Wallan 3756

Map 32 of 111

Project Code:300250055
Drawn By: DS, Checked By: MH
Date: 2025.10.23
Revision: B

Legend

Construction Corridor Alignment
- Construction Boundary
- Temporary Access Corridor
- Proposed Access Track
- Excavation Zone
- Spoil Stockpile Area
- Trenchless Shafts and Working Areas
- Indicative Shared User Path

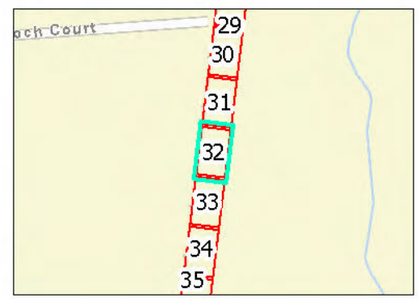
Tree
- Retain (Arboricultural data)
- Retain (Ecology data)
- Retain with supervision (Arboricultural data)
- Retain with supervision (Ecology data)
- Remove (Arboricultural data)
- Remove (Ecology data)
- Absent at time of assessment

Root Zones
- NRZ
- SRZ
- TPZ Fencing

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. MetroMap 2025.

0 2.5 5 7.5 10 Metres
Scale at A3: 1:280



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Tree Management & Protection Plan

Aurora to Bald Hill NDW Main
Craigieburn 3064 to Wallan 3756

Map 33 of 111

Project Code:300250055
Drawn By: DS, Checked By: MH
Date: 10.25 (A3)
Revision: B

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Legend

Construction Corridor Alignment
- Construction Boundary
- Temporary Access Corridor
- Proposed Access Track
- Excavation Zone
- Trenchless Shafts and Working Areas
- Indicative Shared User Path

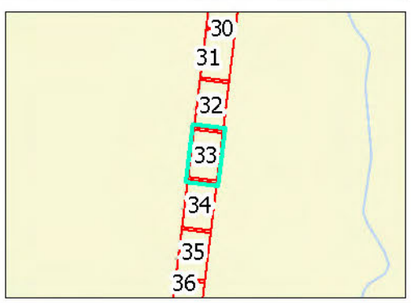
Tree
- Retain (Arboricultural data)
- Retain (Ecology data)
- Retain with supervision (Arboricultural data)
- Retain with supervision (Ecology data)
- Remove (Arboricultural data)
- Remove (Ecology data)
- Absent at time of assessment

Root Zones
- NRZ
- SRZ
- TPZ Fencing

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. MetroMap 2025.

0 2.5 5 7.5 10 Metres
Scale at A3: 1:280



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Tree Management & Protection Plan

Aurora to Bald Hill NDW Main
Craigieburn 3064 to Wallan 3756

Map 34 of 111

Project Code:300250055
Drawn By: DS, Checked By: MH
Date: 2025.10.31
Revision: B

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Stantec

Legend

Construction Corridor Alignment
- Construction Boundary
- Temporary Access Corridor
- Proposed Access Track
- Excavation Zone
- Trenchless Shafts and Working Areas
- Indicative Shared User Path

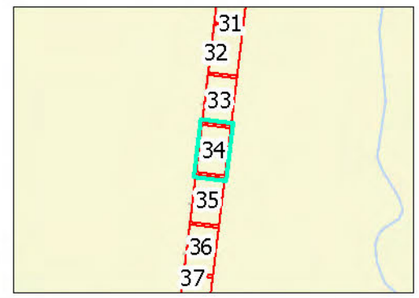
Tree
- Retain (Arboricultural data)
- Retain (Ecology data)
- Retain with supervision (Arboricultural data)
- Retain with supervision (Ecology data)
- Remove (Arboricultural data)
- Remove (Ecology data)
- Absent at time of assessment

Root Zones
- NRZ
- SRZ
- TPZ Fencing

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. MetroMap 2025.

0 2.5 5 7.5 10 Metres
Scale at A3: 1:280



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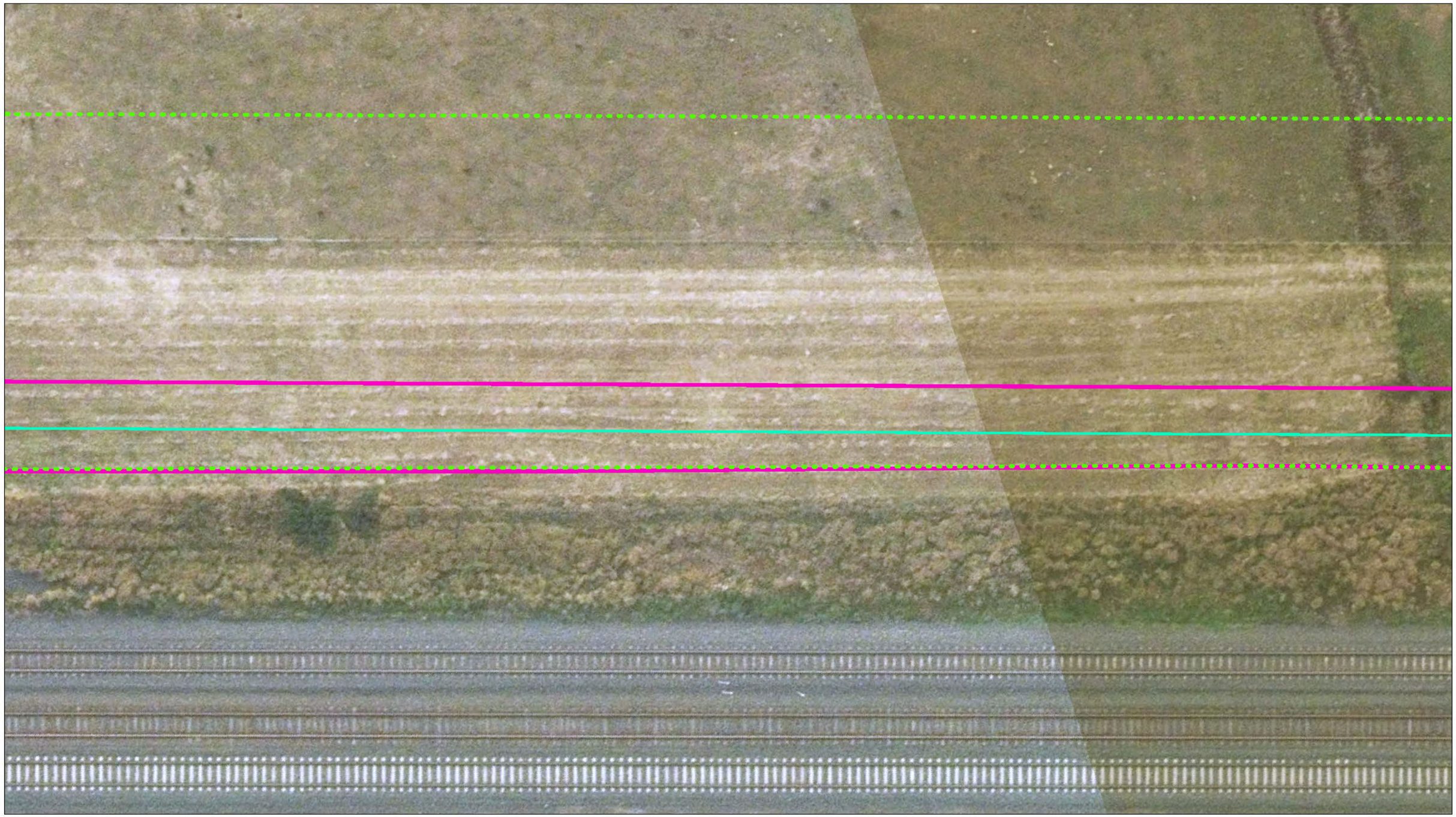

Tree Management & Protection Plan

Aurora to Bald Hill NDW Main
Craigieburn 3064 to Wallan 3756

Map 35 of 111

Project Code:300250055
Drawn By: DS, Checked By: MH
Date: 2025.10.31
Revision: B

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Legend

Construction Corridor Alignment
- Construction Boundary
- Temporary Access Corridor
- Proposed Access Track
- Excavation Zone
- Extent of Impact
- Trenchless Shafts and Working Areas
- Indicative Shared User Path

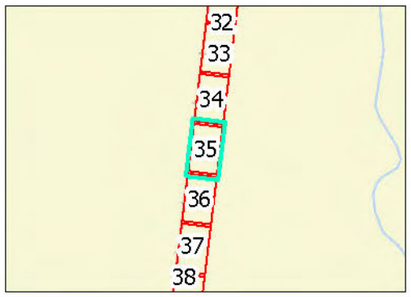
Tree
- Retain (Arboricultural data)
- Retain (Ecology data)
- Retain with supervision (Arboricultural data)
- Retain with supervision (Ecology data)
- Remove (Arboricultural data)
- Remove (Ecology data)
- Absent at time of assessment

Root Zones
- NRZ
- SRZ
- TPZ Fencing

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. MetroMap 2025.

0 2.5 5 7.5 10 Metres
Scale at A3: 1:280



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Tree Management & Protection Plan

Aurora to Bald Hill NDW Main
Craigieburn 3064 to Wallan 3756

Map 36 of 111

Project Code:300250055
Drawn By: DS, Checked By: MH
Date: 2025-10-23
Revision: B

Legend

Construction Corridor Alignment
- Construction Boundary
- Temporary Access Corridor
- Proposed Access Track
- Excavation Zone
- Plant Installation Area
- Trenchless Shafts and Working Areas
- Indicative Shared User Path

Tree
- Retain (Arboricultural data)
- Retain (Ecology data)
- Retain with supervision (Arboricultural data)
- Retain with supervision (Ecology data)
- Remove (Arboricultural data)
- Remove (Ecology data)
- Absent at time of assessment

Root Zones
- NRZ
- SRZ
- TPZ Fencing

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. MetroMap 2025.

0 2.5 5 7.5 10 Metres
Scale at A3: 1:280



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Tree Management & Protection Plan

Aurora to Bald Hill NDW Main
Craigieburn 3064 to Wallan 3756

Map 37 of 111

Project Code:300250055
Drawn By: DS, Checked By: MH
Date:2025.10.23
Revision: B

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Legend

Construction Corridor Alignment
- Construction Boundary
- Temporary Access Corridor
- Proposed Access Track
- Excavation Zone
- Trenchless Shafts and Working Areas
- Indicative Shared User Path

Tree
- Retain (Arboricultural data)
- Retain (Ecology data)
- Retain with supervision (Arboricultural data)
- Retain with supervision (Ecology data)
- Remove (Arboricultural data)
- Remove (Ecology data)
- Absent at time of assessment

Root Zones
- NRZ
- SRZ
- TPZ Fencing

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. MetroMap 2025.

0 2.5 5 7.5 10 Metres
Scale at A3: 1:280



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Tree Management & Protection Plan

Aurora to Bald Hill NDW Main
Craigieburn 3064 to Wallan 3756

Map 38 of 111

Project Code:300250055
Drawn By: DS, Checked By: MH
Date: 2025.10.23
Revision B

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Legend

Construction Corridor Alignment
- Construction Boundary
- Temporary Access Corridor
- Proposed Access Track
- Excavation Zone
- Trenchless Shafts and Working Areas
- Indicative Shared User Path

Tree
- Retain (Arboricultural data)
- Retain (Ecology data)
- Retain with supervision (Arboricultural data)
- Retain with supervision (Ecology data)
- Remove (Arboricultural data)
- Remove (Ecology data)
- Absent at time of assessment

Root Zones
- NRZ
- SRZ
- TPZ Fencing

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. MetroMap 2025.

0 2.5 5 7.5 10 Metres
Scale at A3: 1:280



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Tree Management & Protection Plan

Aurora to Bald Hill NDW Main
Craigieburn 3064 to Wallan 3756

Map 39 of 111

Project Code:300250055
Drawn By: DS, Checked By: MH
Date: 2025.10.23
Revision: B

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Legend

Construction Corridor Alignment
- Construction Boundary
- Temporary Access Corridor
- Proposed Access Track
- Excavation Zone
- Trenchless Shafts and Working Areas
- Indicative Shared User Path

Tree
- Retain (Arboricultural data)
- Retain (Ecology data)
- Retain with supervision (Arboricultural data)
- Retain with supervision (Ecology data)
- Remove (Arboricultural data)
- Remove (Ecology data)
- Absent at time of assessment

Root Zones
- NRZ
- SRZ
- TPZ Fencing

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. MetroMap 2025.

0 2.5 5 7.5 10 Metres
Scale at A3: 1:280



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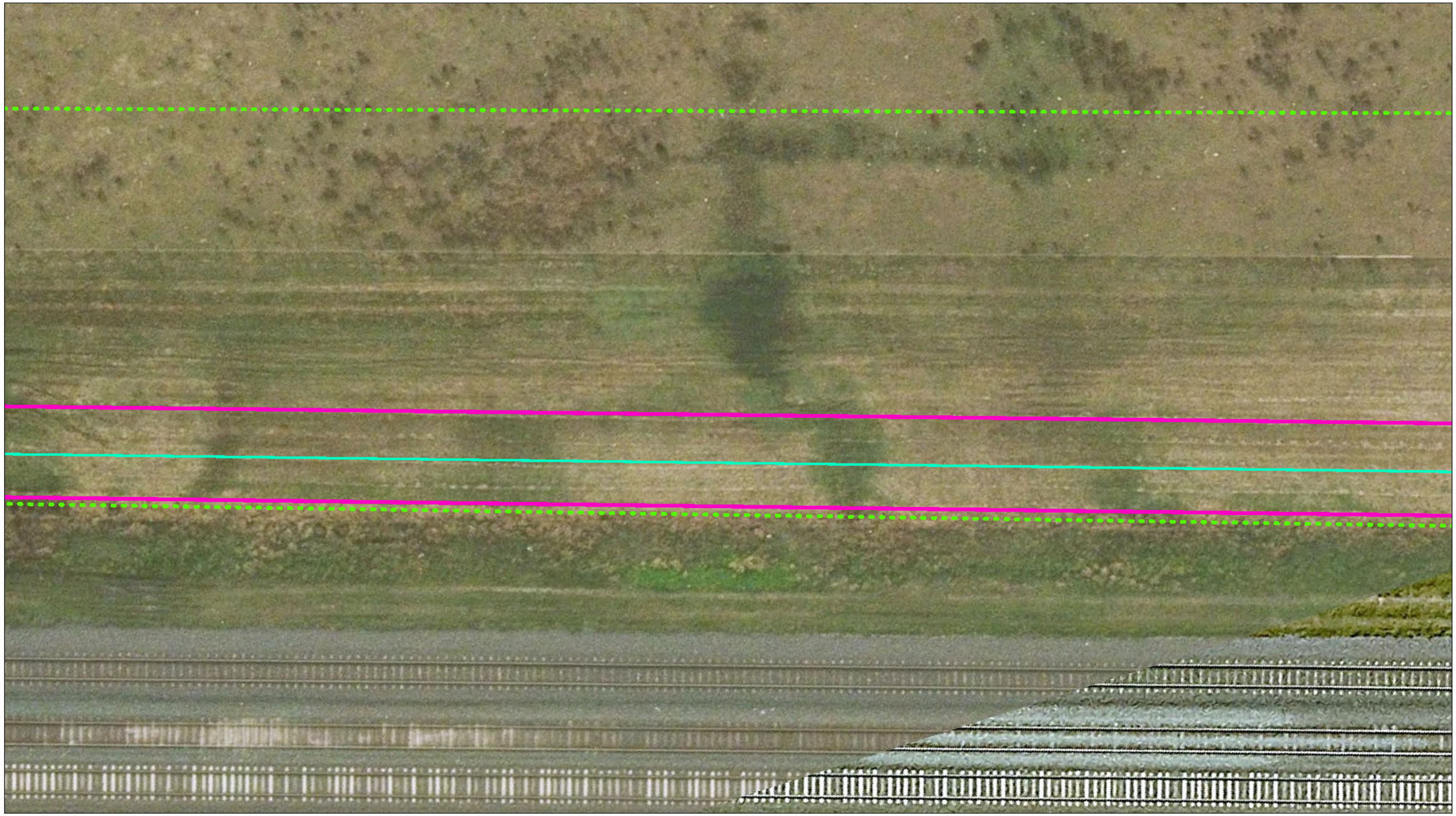

Tree Management & Protection Plan

Aurora to Bald Hill NDW Main
Craigieburn 3064 to Wallan 3756

Map 40 of 111

Project Code:300250055
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Legend

Construction Corridor Alignment
- Construction Boundary
- Temporary Access Corridor
- Proposed Access Track
- Excavation Zone
- Stockpile/Laydown Area
- Trenchless Shafts and Working Areas
- Indicative Shared User Path

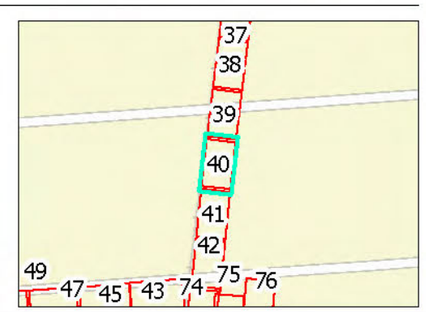
Tree
- Retain (Arboricultural data)
- Retain (Ecology data)
- Retain with supervision (Arboricultural data)
- Retain with supervision (Ecology data)
- Remove (Arboricultural data)
- Remove (Ecology data)
- Absent at time of assessment

Root Zones
- NRZ
- SRZ
- TPZ Fencing

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. MetroMap 2025.

0 2.5 5 7.5 10 Metres
Scale at A3: 1:280



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Tree Management & Protection Plan

Aurora to Bald Hill NDW Main
Craigieburn 3064 to Wallan 3756

Map 41 of 111

Project Code:300250055
Drawn By: DS, Checked By: MH
Date: 2025.10.23
Revision: B

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Stantec

Legend

Construction Corridor Alignment
- Construction Boundary
- Temporary Access Corridor
- Proposed Access Track
- Excavation Zone
- Spoil Stockpile Area
- Trenchless Shafts and Working Areas
- Indicative Shared User Path

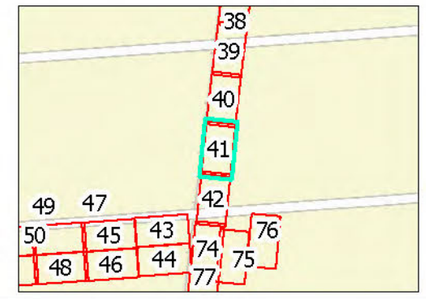
Tree
- Retain (Arboricultural data)
- Retain (Ecology data)
- Retain with supervision (Arboricultural data)
- Retain with supervision (Ecology data)
- Remove (Arboricultural data)
- Remove (Ecology data)
- Absent at time of assessment

Root Zones
- NRZ
- SRZ
- TPZ Fencing

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. MetroMap 2025.

0 2.5 5 7.5 10 Metres
Scale at A3: 1:280



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Tree Management & Protection Plan

Aurora to Bald Hill NDW Main
Craigieburn 3064 to Wallan 3756

Map 42 of 111

Project Code:300250055
Drawn By: DS, Checked By: MH
Date: 2025.10.23
Revision: B

Legend

Construction Corridor Alignment
- Construction Boundary
- Temporary Access Corridor
- Proposed Access Track
- Excavation Zone
- Trenchless Shafts and Working Areas
- Indicative Shared User Path

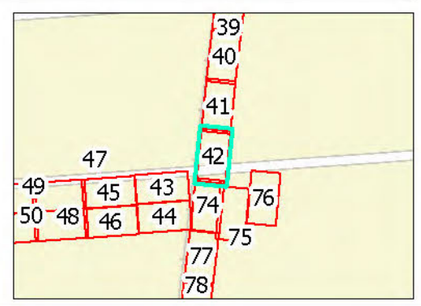
Tree
- Retain (Arboricultural data)
- Retain (Ecology data)
- Retain with supervision (Arboricultural data)
- Retain with supervision (Ecology data)
- Remove (Arboricultural data)
- Remove (Ecology data)
- Absent at time of assessment

Root Zones
- NRZ
- SRZ
- TPZ Fencing

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. MetroMap 2025.

0 2.5 5 7.5 10 Metres
Scale at A3: 1:280



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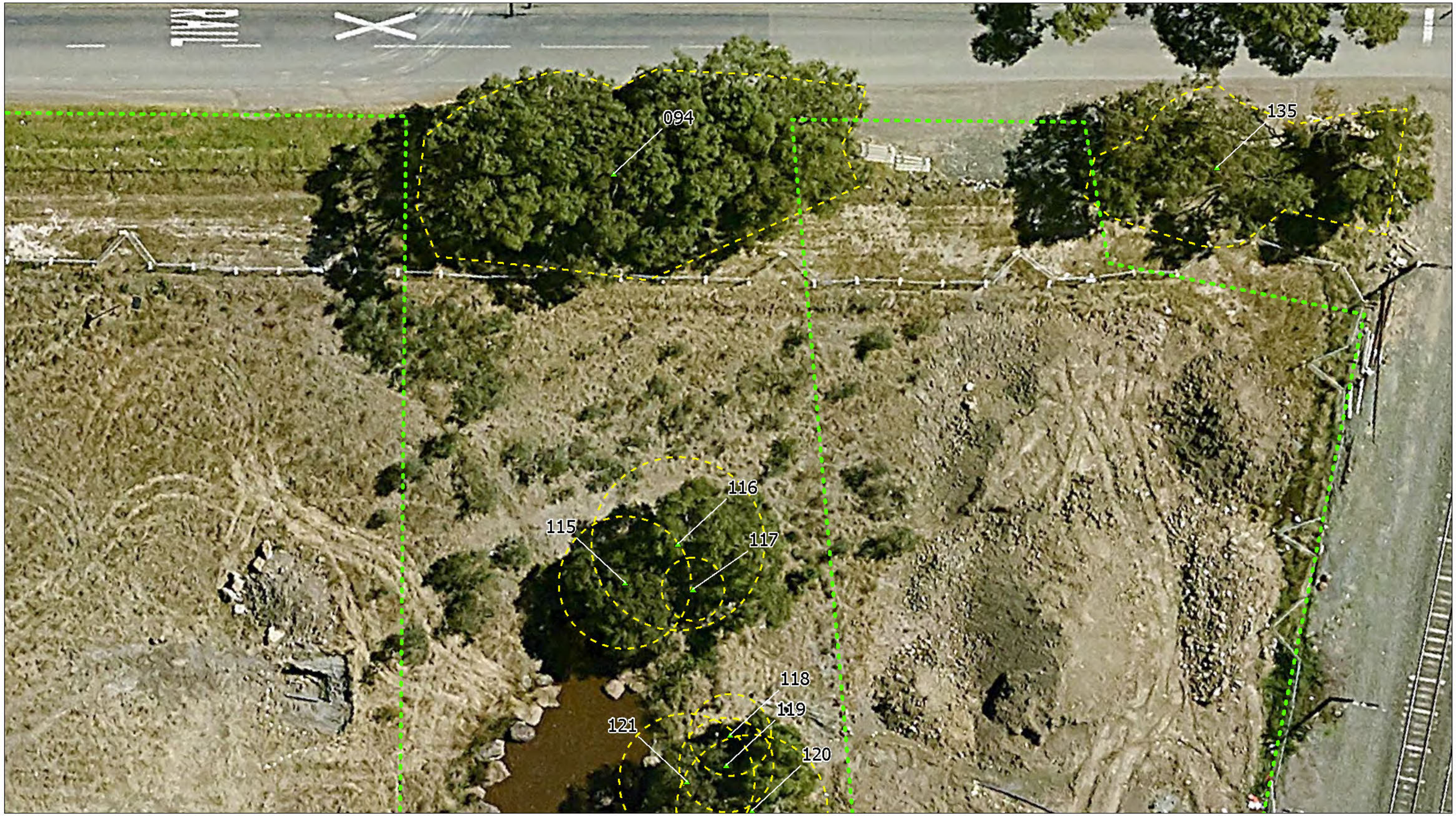


Tree Management & Protection Plan

Aurora to Bald Hill NDW Main
Craigieburn 3064 to Wallan 3756

Map 43 of 111

Project Code:300250055
Drawn By: DS, Checked By: MH
Date: 2025.10.23
Revision: B

Legend

Construction Corridor Alignment
- Construction Boundary
- Temporary Access Corridor
- Proposed Access Track
- Excavation Zone
- Extent of Impact
- Trenchless Shafts and Working Areas
- Indicative Shared User Path

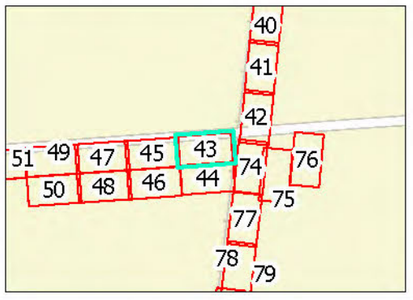
Tree
- Retain (Arboricultural data)
- Retain (Ecology data)
- Retain with supervision (Arboricultural data)
- Retain with supervision (Ecology data)
- Remove (Arboricultural data)
- Remove (Ecology data)
- Absent at time of assessment

Root Zones
- NRZ
- SRZ
- TPZ Fencing

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. MetroMap 2025.

0 2.5 5 7.5 10 Metres
Scale at A3: 1:280



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Tree Management & Protection Plan

Aurora to Bald Hill NDW Main
Craigieburn 3064 to Wallan 3756

Map 44 of 111

Project Code:300250055
Drawn By: DS, Checked By: MH
Date: 2025.10.23
Revision: B

Legend

Construction Corridor Alignment
- Construction Boundary
- Temporary Access Corridor
- Proposed Access Track
- Excavation Zone
- Trenchless Shafts and Working Areas
- Indicative Shared User Path

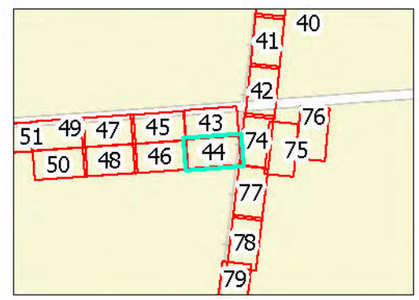
Tree
- Retain (Arboricultural data)
- Retain (Ecology data)
- Retain with supervision (Arboricultural data)
- Retain with supervision (Ecology data)
- Remove (Arboricultural data)
- Remove (Ecology data)
- Absent at time of assessment

Root Zones
- NRZ
- SRZ
- TPZ Fencing

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. MetroMap 2025.

0 2.5 5 7.5 10 Metres
Scale at A3: 1:280



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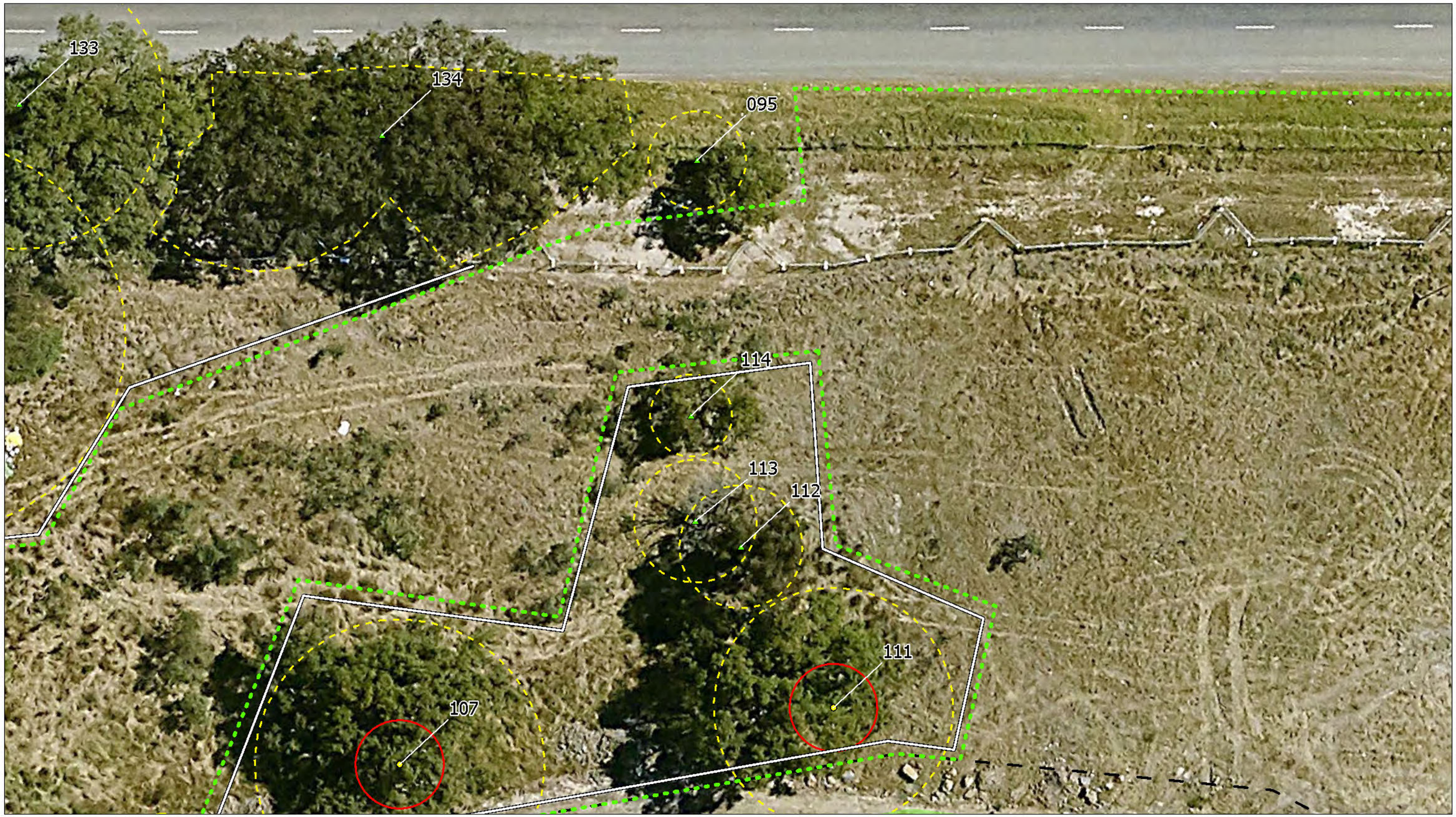

Tree Management & Protection Plan

Aurora to Bald Hill NDW Main
Craigieburn 3064 to Wallan 3756

Map 45 of 111

Project Code:300250055
Drawn By: DS, Checked By: MH
Date: 10/25 10:31
Revision: B

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Legend

Construction Corridor Alignment
- Construction Boundary
- Temporary Access Corridor
- Proposed Access Track
- Excavation Zone
- Trenchless Shafts and Working Areas
- Indicative Shared User Path

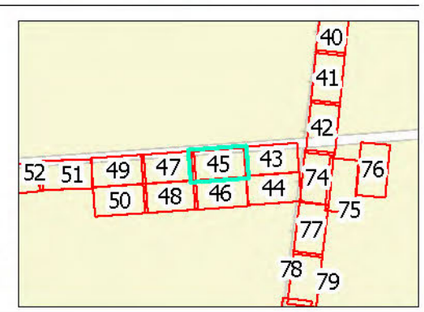
Tree
- Retain (Arboricultural data)
- Retain (Ecology data)
- Retain with supervision (Arboricultural data)
- Retain with supervision (Ecology data)
- Remove (Arboricultural data)
- Remove (Ecology data)
- Absent at time of assessment

Root Zones
- NRZ
- SRZ
- TPZ Fencing

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. MetroMap 2025.

0 2.5 5 7.5 10 Metres
Scale at A3: 1:280



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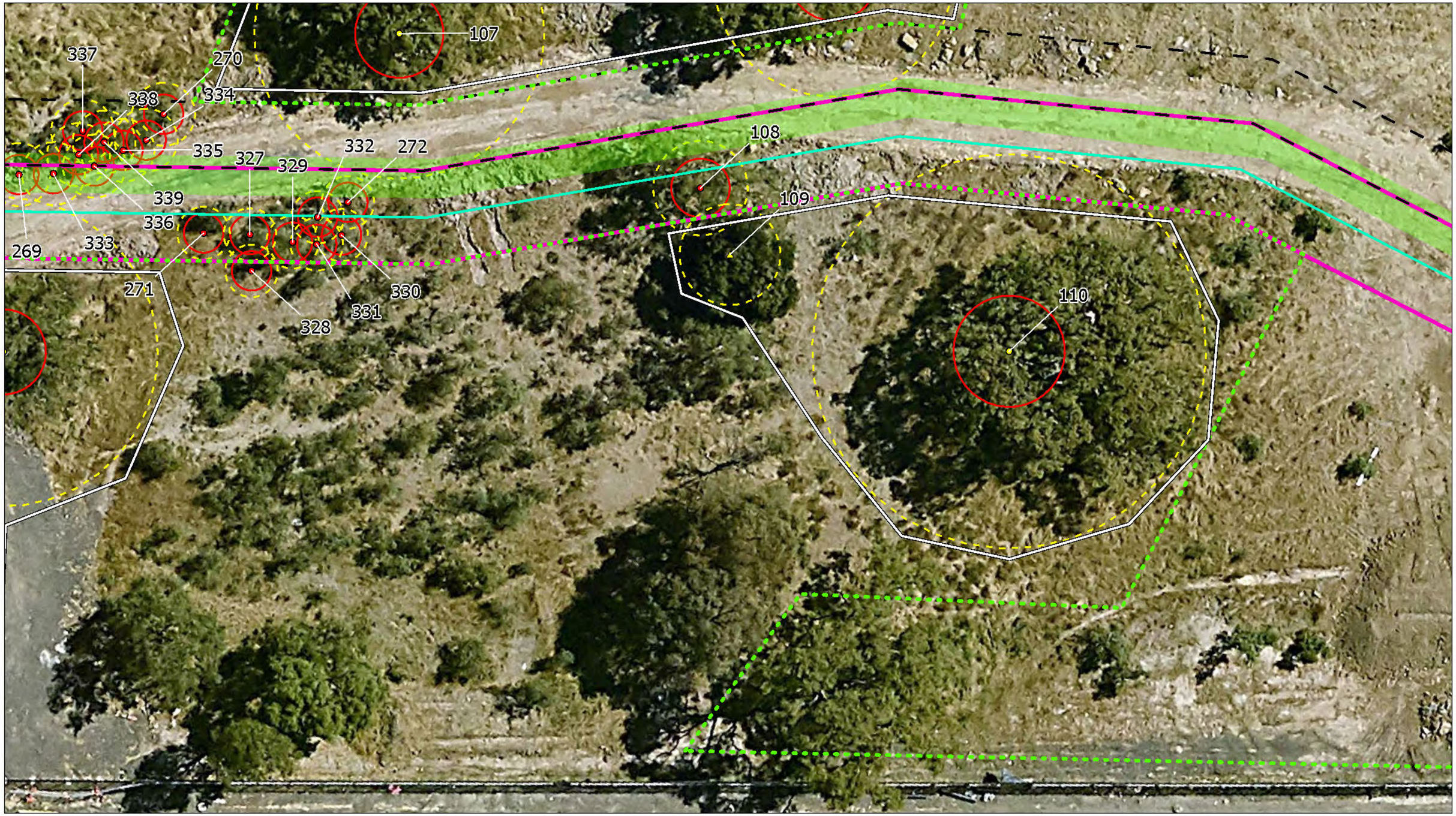

Tree Management & Protection Plan

Aurora to Bald Hill NDW Main
Craigieburn 3064 to Wallan 3756

Map 46 of 111

Project Code:300250055
Drawn By: DS, Checked By: MH
Date: 2025.10.31
Revision: B

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Legend

Construction Corridor Alignment
- Construction Boundary
- Temporary Access Corridor
- Proposed Access Track
- Excavation Zone
- Stockpile/Laydown Area
- Trenchless Shafts and Working Areas
- Indicative Shared User Path

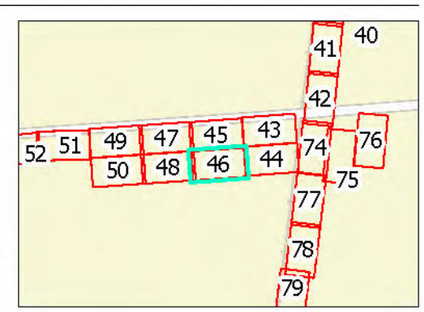
Tree
- Retain (Arboricultural data)
- Retain (Ecology data)
- Retain with supervision (Arboricultural data)
- Retain with supervision (Ecology data)
- Remove (Arboricultural data)
- Remove (Ecology data)
- Absent at time of assessment

Root Zones
- NRZ
- SRZ
- TPZ Fencing

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. MetroMap 2025.

0 2.5 5 7.5 10
Metres
Scale at A3: 1:280



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Tree Management & Protection Plan

Aurora to Bald Hill NDW Main
Craigieburn 3064 to Wallan 3756

Map 47 of 111

Project Code:300250055
Drawn By: DS, Checked By: MH
Date: 2025-10-31
Revision: B

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Legend

Construction Corridor Alignment
- Construction Boundary
- Temporary Access Corridor
- Proposed Access Track
- Excavation Zone
- Trenchless Shafts and Working Areas
- Indicative Shared User Path

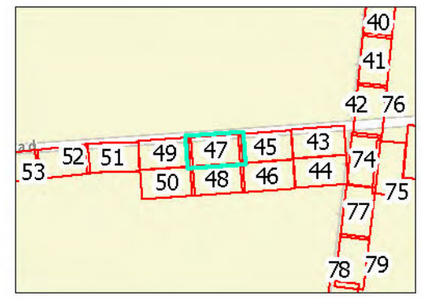
Tree
- Retain (Arboricultural data)
- Retain (Ecology data)
- Retain with supervision (Arboricultural data)
- Retain with supervision (Ecology data)
- Remove (Arboricultural data)
- Remove (Ecology data)
- Absent at time of assessment

Root Zones
- NRZ
- SRZ
- TPZ Fencing

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. MetroMap 2025.

0 2.5 5 7.5 10 Metres
Scale at A3: 1:280



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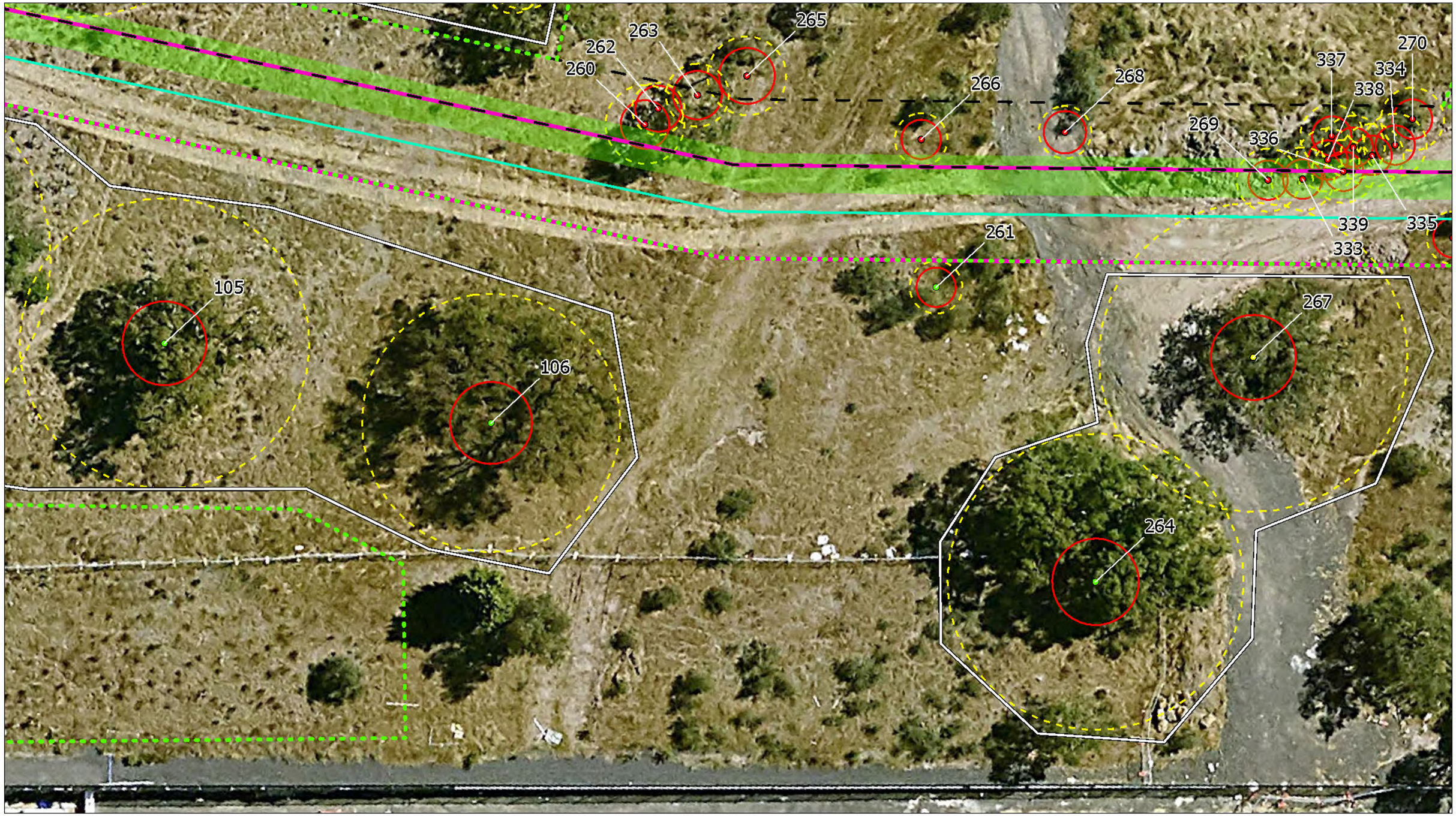


Tree Management & Protection Plan

Aurora to Bald Hill NDW Main
Craigieburn 3064 to Wallan 3756

Map 48 of 111

Project Code:300250055
Drawn By: DS, Checked By: MH
Date: 2025-10-23
Revision: B

Legend

Construction Corridor Alignment
- Construction Boundary
- Temporary Access Corridor
- Proposed Access Track
- Excavation Zone
- Other Alignments
- Trenchless Shafts and Working Areas
- Indicative Shared User Path

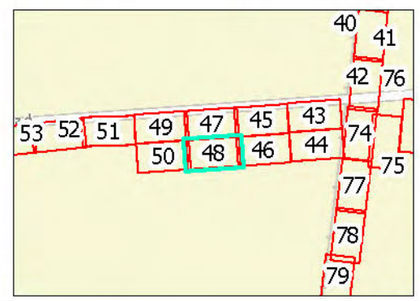
Tree
- Retain (Arboricultural data)
- Retain (Ecology data)
- Retain with supervision (Arboricultural data)
- Retain with supervision (Ecology data)
- Remove (Arboricultural data)
- Remove (Ecology data)
- Absent at time of assessment

Root Zones
- NRZ
- SRZ
- TPZ Fencing

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. MetroMap 2025.

0 2.5 5 7.5 10 Metres
Scale at A3: 1:280



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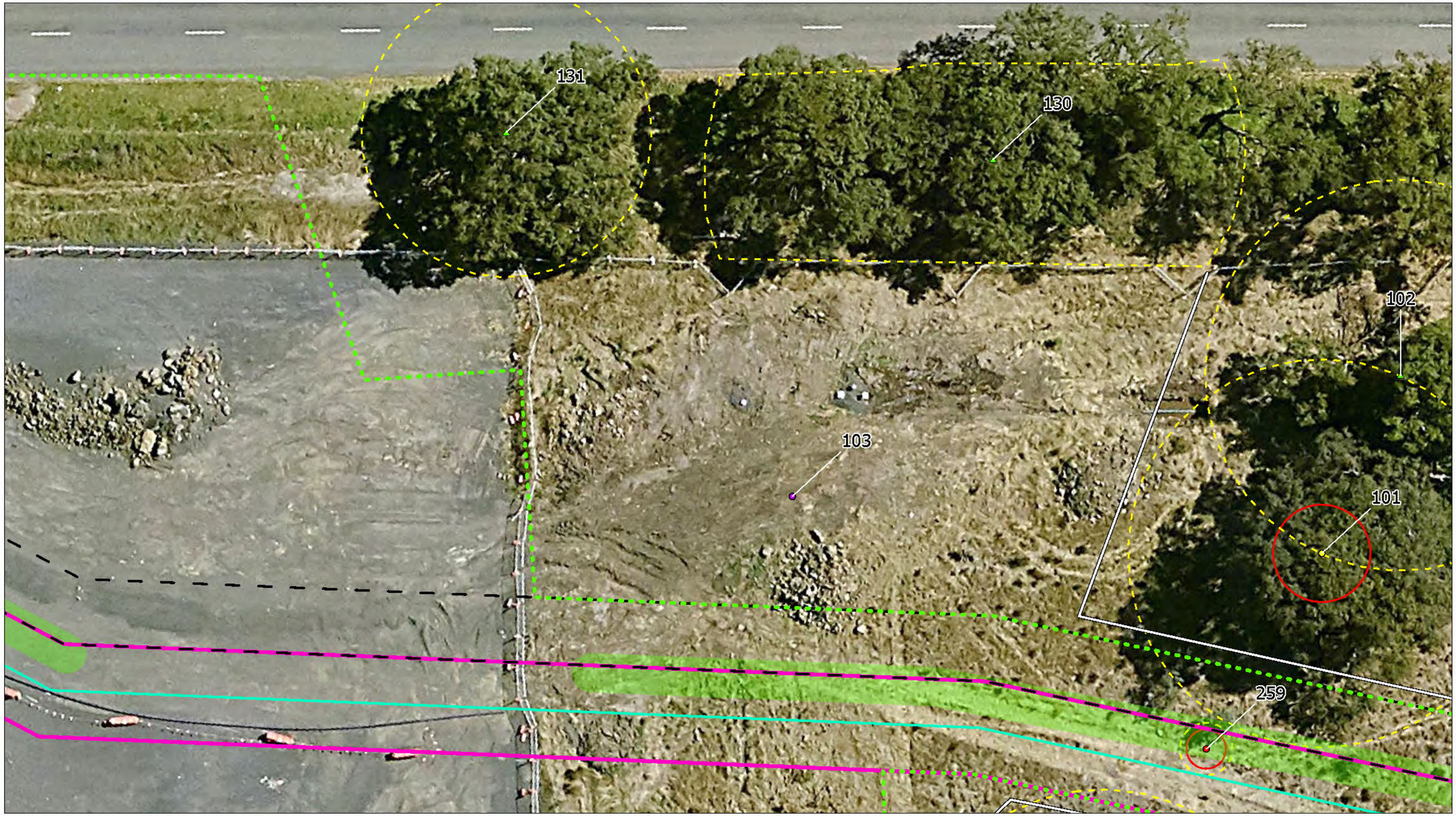


Tree Management & Protection Plan

Aurora to Bald Hill NDW Main
Craigieburn 3064 to Wallan 3756

Map 49 of 111

Project Code:300250055
Drawn By: DS, Checked By: MH
Date: 2025.10.23
Revision: B

Legend

Construction Corridor Alignment
- Construction Boundary
- Temporary Access Corridor
- Proposed Access Track
- Excavation Zone
- Spoil Stockpile Location
- Trenchless Shafts and Working Areas
- Indicative Shared User Path

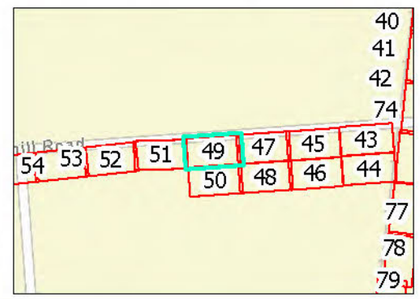
Tree
- Retain (Arboricultural data)
- Retain (Ecology data)
- Retain with supervision (Arboricultural data)
- Retain with supervision (Ecology data)
- Remove (Arboricultural data)
- Remove (Ecology data)
- Absent at time of assessment

Root Zones
- NRZ
- SRZ
- TPZ Fencing

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. MetroMap 2025.

0 2.5 5 7.5 10 Metres
Scale at A3: 1:280



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Tree Management & Protection Plan

Aurora to Bald Hill NDW Main
Craigieburn 3064 to Wallan 3756

Map 50 of 111

Project Code:300250055
Drawn By: DS, Checked By: MH
Date: 2025.10.23
Revision: B

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Legend

Construction Corridor Alignment
- Construction Boundary
- Temporary Access Corridor
- Proposed Access Track
- Excavation Zone
- Trenchless Shafts and Working Areas
- Indicative Shared User Path

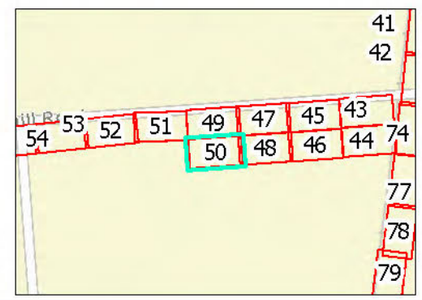
Tree
- Retain (Arboricultural data)
- Retain (Ecology data)
- Retain with supervision (Arboricultural data)
- Retain with supervision (Ecology data)
- Remove (Arboricultural data)
- Remove (Ecology data)
- Absent at time of assessment

Root Zones
- NRZ
- SRZ
- TPZ Fencing

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. MetroMap 2025.

0 2.5 5 7.5 10 Metres
Scale at A3: 1:280



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Tree Management & Protection Plan

Aurora to Bald Hill NDW Main
Craigieburn 3064 to Wallan 3756

Map 51 of 111

Project Code:300250055
Drawn By: DS, Checked By: MH
Date: 2025-10-23
Revision: B

Legend

Construction Corridor Alignment
- Construction Boundary
- Temporary Access Corridor
- Proposed Access Track
- Excavation Zone
- Trenchless Shafts and Working Areas
- Indicative Shared User Path

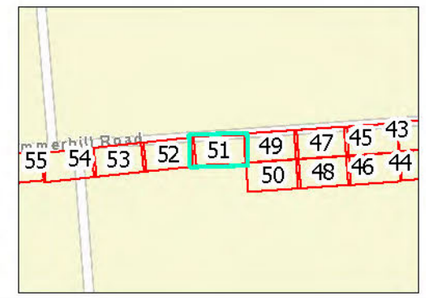
Tree
- Retain (Arboricultural data)
- Retain (Ecology data)
- Retain with supervision (Arboricultural data)
- Retain with supervision (Ecology data)
- Remove (Arboricultural data)
- Remove (Ecology data)
- Absent at time of assessment

Root Zones
- NRZ
- SRZ
- TPZ Fencing

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. MetroMap 2025.

0 2.5 5 7.5 10 Metres
Scale at A3: 1:280



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Tree Management & Protection Plan

Aurora to Bald Hill NDW Main
Craigieburn 3064 to Wallan 3756

Map 52 of 111

Project Code:300250055
Drawn By: DS, Checked By: MH
Date: 2025-10-21
Revision: B

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Stantec

Legend

Construction Corridor Alignment
- Construction Boundary
- Temporary Access Corridor
- Proposed Access Track
- Excavation Zone
- Stockpile/Laydown Area
- Trenchless Shafts and Working Areas
- Indicative Shared User Path

Tree
- Retain (Arboricultural data)
- Retain (Ecology data)
- Retain with supervision (Arboricultural data)
- Retain with supervision (Ecology data)
- Remove (Arboricultural data)
- Remove (Ecology data)
- Absent at time of assessment

Root Zones
- NRZ
- SRZ
- TPZ Fencing

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. MetroMap 2025.

0 2.5 5 7.5 10 Metres
Scale at A3: 1:280



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Tree Management & Protection Plan

Aurora to Bald Hill NDW Main
Craigieburn 3064 to Wallan 3756

Map 53 of 111

Project Code:300250055
Drawn By: DS, Checked By: MH
Date: 2025.10.23
Revision B

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Legend

Construction Corridor Alignment
- Construction Boundary
- Temporary Access Corridor
- Proposed Access Track
- Excavation Zone
- Trenchless Shafts and Working Areas
- Indicative Shared User Path

Tree
- Retain (Arboricultural data)
- Retain (Ecology data)
- Retain with supervision (Arboricultural data)
- Retain with supervision (Ecology data)
- Remove (Arboricultural data)
- Remove (Ecology data)
- Absent at time of assessment

Root Zones
- NRZ
- SRZ
- TPZ Fencing

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. MetroMap 2025.

0 2.5 5 7.5 10 Metres
Scale at A3: 1:280



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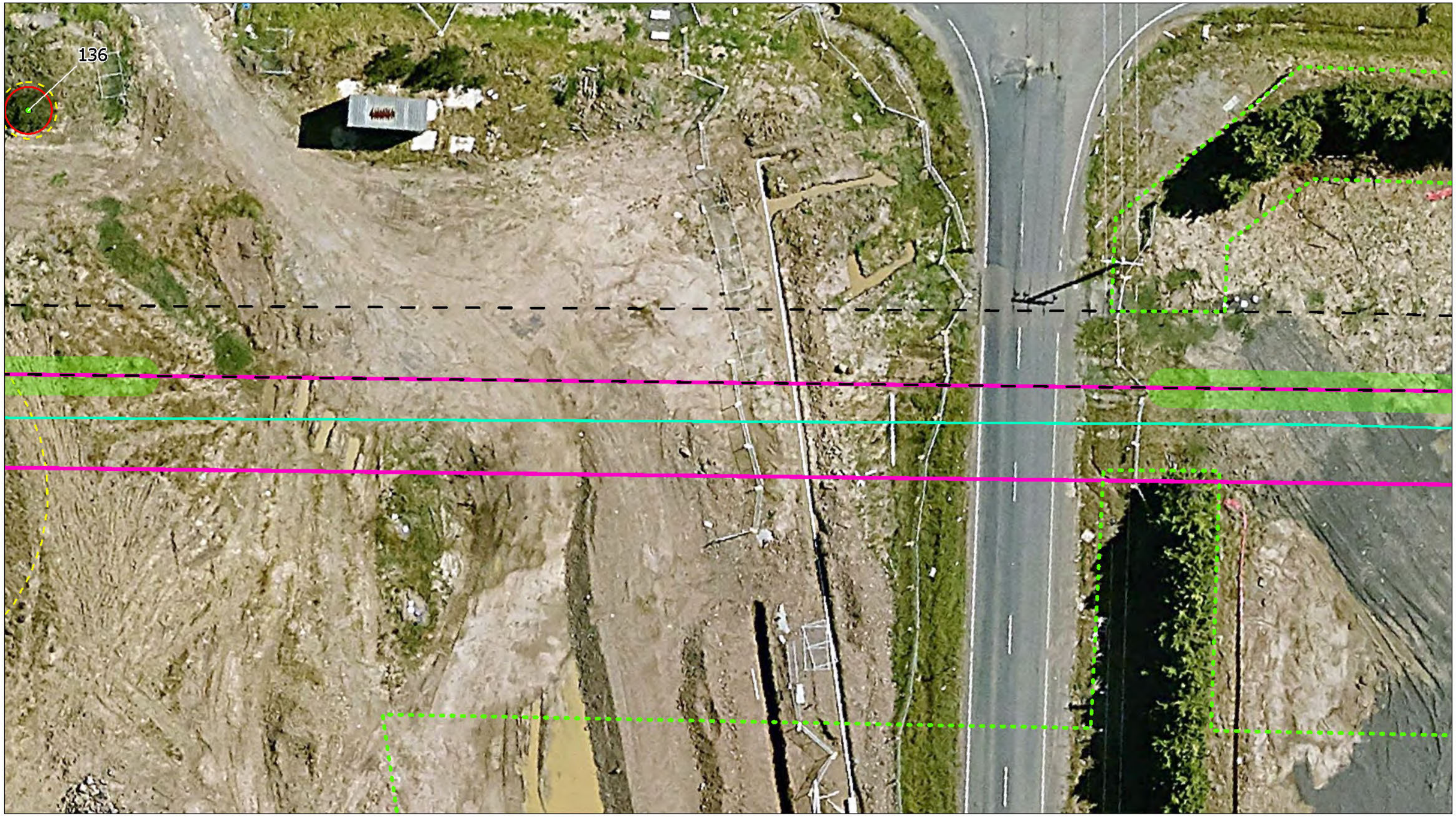

Tree Management & Protection Plan

Aurora to Bald Hill NDW Main
Craigieburn 3064 to Wallan 3756

Map 54 of 111

Project Code:300250055
Drawn By: DS, Checked By: MH
Date: 2025.10.23
Revision: B

Legend

Construction Corridor Alignment
- Construction Boundary
- Temporary Access Corridor
- Proposed Access Track
- Excavation Zone
- Trenchless Shafts and Working Areas
- Indicative Shared User Path

Tree
- Retain (Arboricultural data)
- Retain (Ecology data)
- Retain with supervision (Arboricultural data)
- Retain with supervision (Ecology data)
- Remove (Arboricultural data)
- Remove (Ecology data)
- Absent at time of assessment

Root Zones
- NRZ
- SRZ
- TPZ Fencing

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. MetroMap 2025.

0 2.5 5 7.5 10
Metres
Scale at A3: 1:280



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Tree Management & Protection Plan

Aurora to Bald Hill NDW Main
Craigieburn 3064 to Wallan 3756

Map 55 of 111

Project Code:300250055
Drawn By: DS, Checked By: MH
Date: 2025.10.23
Revision: B

Legend

Construction Corridor Alignment
- Construction Boundary
- Temporary Access Corridor
- Proposed Access Track
- Excavation Zone
- Stockpile/Laydown Area
- Trenchless Shafts and Working Areas
- Indicative Shared User Path

Tree
- Retain (Arboricultural data)
- Retain (Ecology data)
- Retain with supervision (Arboricultural data)
- Retain with supervision (Ecology data)
- Remove (Arboricultural data)
- Remove (Ecology data)
- Absent at time of assessment

Root Zones
- NRZ
- SRZ
- TPZ Fencing

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. MetroMap 2025.

0 2.5 5 7.5 10 Metres
Scale at A3: 1:280



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Tree Management & Protection Plan

Aurora to Bald Hill NDW Main
Craigieburn 3064 to Wallan 3756

Map 56 of 111

Project Code:300250055
Drawn By: DS, Checked By: MH
Date: 2025.10.23
Revision: B

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Legend

Construction Corridor Alignment
- Construction Boundary
- Temporary Access Corridor
- Proposed Access Track
- Excavation Zone
- Trenchless Shafts and Working Areas
- Indicative Shared User Path

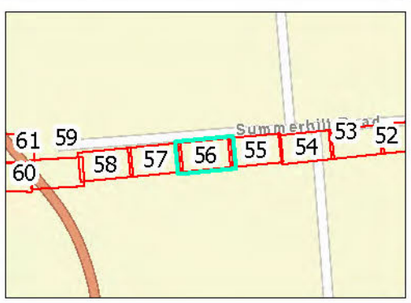
Tree
- Retain (Arboricultural data)
- Retain (Ecology data)
- Retain with supervision (Arboricultural data)
- Retain with supervision (Ecology data)
- Remove (Arboricultural data)
- Remove (Ecology data)
- Absent at time of assessment

Root Zones
- NRZ
- SRZ
- TPZ Fencing

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. MetroMap 2025.

0 2.5 5 7.5 10
Metres
Scale at A3: 1:280



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Tree Management & Protection Plan

Aurora to Bald Hill NDW Main
Craigieburn 3064 to Wallan 3756

Map 57 of 111

Project Code:300250055
Drawn By: DS, Checked By: MH
Date: 2025.10.23
Revision: B

Legend

Construction Corridor Alignment
- Construction Boundary
- Temporary Access Corridor
- Proposed Access Track
- Excavation Zone
- Earth Retaining Wall
- Trenchless Shafts and Working Areas
- Indicative Shared User Path

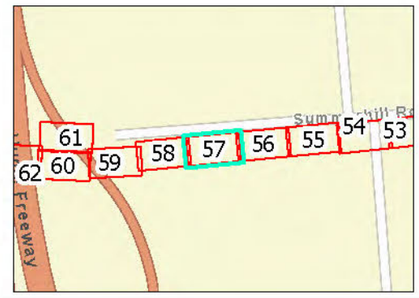
Tree
- Retain (Arboricultural data)
- Retain (Ecology data)
- Retain with supervision (Arboricultural data)
- Retain with supervision (Ecology data)
- Remove (Arboricultural data)
- Remove (Ecology data)
- Absent at time of assessment

Root Zones
- NRZ
- SRZ
- TPZ Fencing

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. MetroMap 2025.

0 2.5 5 7.5 10 Metres
Scale at A3: 1:280



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Tree Management & Protection Plan

Aurora to Bald Hill NDW Main
Craigieburn 3064 to Wallan 3756

Map 58 of 111

Project Code:300250055
Drawn By: DS, Checked By: MH
Date: 2025.10.23
Revision: B

Legend

Construction Corridor Alignment
- Construction Boundary
- Temporary Access Corridor
- Proposed Access Track
- Excavation Zone
- Earth Retaining Wall
- Trenchless Shafts and Working Areas
- Indicative Shared User Path

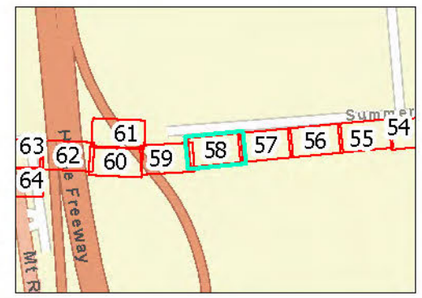
Tree
- Retain (Arboricultural data)
- Retain (Ecology data)
- Retain with supervision (Arboricultural data)
- Retain with supervision (Ecology data)
- Remove (Arboricultural data)
- Remove (Ecology data)
- Absent at time of assessment

Root Zones
- NRZ
- SRZ
- TPZ Fencing

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. MetroMap 2025.

0 2.5 5 7.5 10 Metres
Scale at A3: 1:280



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Tree Management & Protection Plan

Aurora to Bald Hill NDW Main
Craigieburn 3064 to Wallan 3756

Map 59 of 111

Project Code:300250055
Drawn By: DS, Checked By: MH
Date: 2025.10.23
Revision: B

Legend

Construction Corridor Alignment
- Construction Boundary
- Temporary Access Corridor
- Proposed Access Track
- Excavation Zone
- Extent of Impacts
- Trenchless Shafts and Working Areas
- Indicative Shared User Path

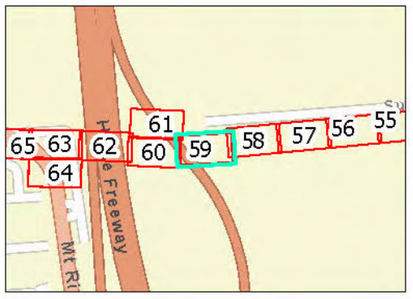
Tree
- Retain (Arboricultural data)
- Retain (Ecology data)
- Retain with supervision (Arboricultural data)
- Retain with supervision (Ecology data)
- Remove (Arboricultural data)
- Remove (Ecology data)
- Absent at time of assessment

Root Zones
- NRZ
- SRZ
- TPZ Fencing

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. MetroMap 2025.

0 2.5 5 7.5 10 Metres
Scale at A3: 1:280



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Tree Management & Protection Plan

Aurora to Bald Hill NDW Main
Craigieburn 3064 to Wallan 3756

Map 60 of 111

Project Code:300250055
Drawn By: DS, Checked By: MH
Date: 2025.10.23
Revision: B

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Legend

Construction Corridor Alignment
- Construction Boundary
- Temporary Access Corridor
- Proposed Access Track
- Excavation Zone
- Stockpile/Laydown Area
- Trenchless Shafts and Working Areas
- Indicative Shared User Path

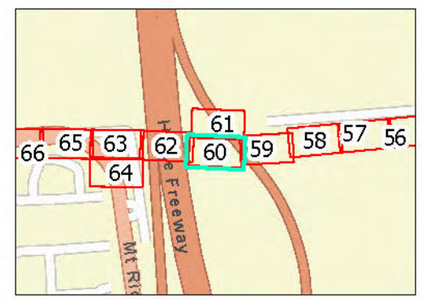
Tree
- Retain (Arboricultural data)
- Retain (Ecology data)
- Retain with supervision (Arboricultural data)
- Retain with supervision (Ecology data)
- Remove (Arboricultural data)
- Remove (Ecology data)
- Absent at time of assessment

Root Zones
- NRZ
- SRZ
- TPZ Fencing

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. MetroMap 2025.

0 2.5 5 7.5 10 Metres
Scale at A3: 1:280



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Tree Management & Protection Plan

Aurora to Bald Hill NDW Main
Craigieburn 3064 to Wallan 3756

Map 61 of 111

Project Code:300250055
Drawn By: DS, Checked By: MH
Date: 2025-10-23
Revision: B

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Legend

Construction Corridor Alignment
- Construction Boundary
- Temporary Access Corridor
- Proposed Access Track
- Excavation Zone
- Trenchless Shafts and Working Areas
- Indicative Shared User Path

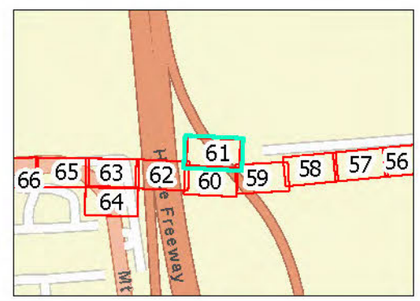
Tree
- Retain (Arboricultural data)
- Retain (Ecology data)
- Retain with supervision (Arboricultural data)
- Retain with supervision (Ecology data)
- Remove (Arboricultural data)
- Remove (Ecology data)
- Absent at time of assessment

Root Zones
- NRZ
- SRZ
- TPZ Fencing

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. MetroMap 2025.

0 2.5 5 7.5 10
Metres
Scale at A3: 1:280



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Tree Management & Protection Plan

Aurora to Bald Hill NDW Main
Craigieburn 3064 to Wallan 3756

Map 62 of 111

Project Code:300250055
Drawn By: DS, Checked By: MH
Date: 2025-10-23
Revision: B

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Legend

Construction Corridor Alignment
- Construction Boundary
- Temporary Access Corridor
- Proposed Access Track
- Excavation Zone
- Trenchless Shafts and Working Areas
- Indicative Shared User Path

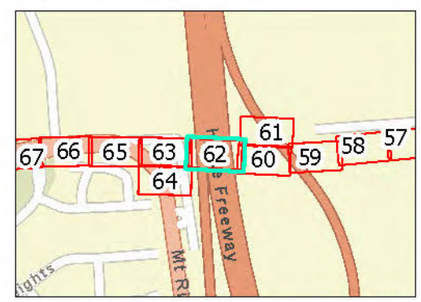
Tree
- Retain (Arboricultural data)
- Retain (Ecology data)
- Retain with supervision (Arboricultural data)
- Retain with supervision (Ecology data)
- Remove (Arboricultural data)
- Remove (Ecology data)
- Absent at time of assessment

Root Zones
- NRZ
- SRZ
- TPZ Fencing

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. MetroMap 2025.

0 2.5 5 7.5 10 Metres
Scale at A3: 1:260



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Tree Management & Protection Plan

Aurora to Bald Hill NDW Main
Craigieburn 3064 to Wallan 3756

Map 63 of 111

Project Code:300250055
Drawn By: DS, Checked By: MH
Date: 2025.10.23
Revision: B

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Legend

Construction Corridor Alignment
- Construction Boundary
- Temporary Access Corridor
- Proposed Access Track
- Excavation Zone
- Trenchless Shafts and Working Areas
- Indicative Shared User Path

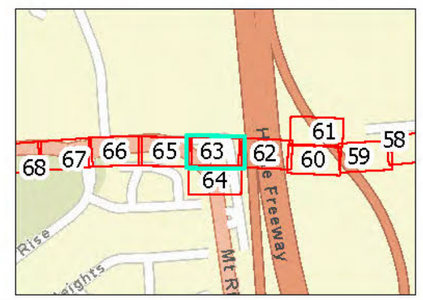
Tree
- Retain (Arboricultural data)
- Retain (Ecology data)
- Retain with supervision (Arboricultural data)
- Retain with supervision (Ecology data)
- Remove (Arboricultural data)
- Remove (Ecology data)
- Absent at time of assessment

Root Zones
- NRZ
- SRZ
- TPZ Fencing

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. MetroMap 2025.

0 2.5 5 7.5 10 Metres
Scale at A3: 1:280



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Tree Management & Protection Plan

Aurora to Bald Hill NDW Main
Craigieburn 3064 to Wallan 3756

Map 64 of 111

Project Code:300250055
Drawn By: DS, Checked By: MH
Date: 2025-10-23
Revision: B

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Legend

Construction Corridor Alignment
- Construction Boundary
- Temporary Access Corridor
- Proposed Access Track
- Excavation Zone
- Stockpile/Laydown Area
- Trenchless Shafts and Working Areas
- Indicative Shared User Path

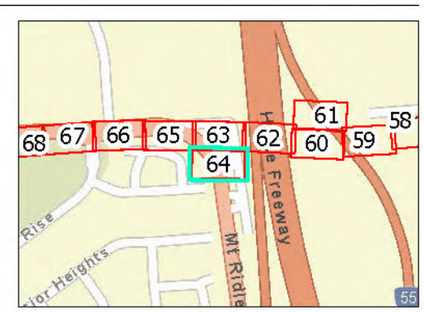
Tree
- Retain (Arboricultural data)
- Retain (Ecology data)
- Retain with supervision (Arboricultural data)
- Retain with supervision (Ecology data)
- Remove (Arboricultural data)
- Remove (Ecology data)
- Absent at time of assessment

Root Zones
- NRZ
- SRZ
- TPZ Fencing

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. MetroMap 2025.

0 2.5 5 7.5 10 Metres
Scale at A3: 1:280



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Tree Management & Protection Plan

Aurora to Bald Hill NDW Main
Craigieburn 3064 to Wallan 3756

Map 65 of 111

Project Code:300250055
Drawn By: DS, Checked By: MH
Date: 2025-10-23
Revision: B

Legend

Construction Corridor Alignment
- Construction Boundary
- Temporary Access Corridor
- Proposed Access Track
- Excavation Zone
- Trenchless Shafts and Working Areas
- Indicative Shared User Path

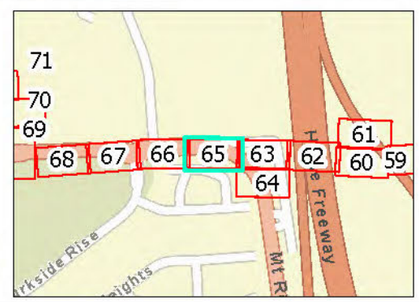
Tree
- Retain (Arboricultural data)
- Retain (Ecology data)
- Retain with supervision (Arboricultural data)
- Retain with supervision (Ecology data)
- Remove (Arboricultural data)
- Remove (Ecology data)
- Absent at time of assessment

Root Zones
- NRZ
- SRZ
- TPZ Fencing

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. MetroMap 2025.

0 2.5 5 7.5 10 Metres
Scale at A3: 1:280



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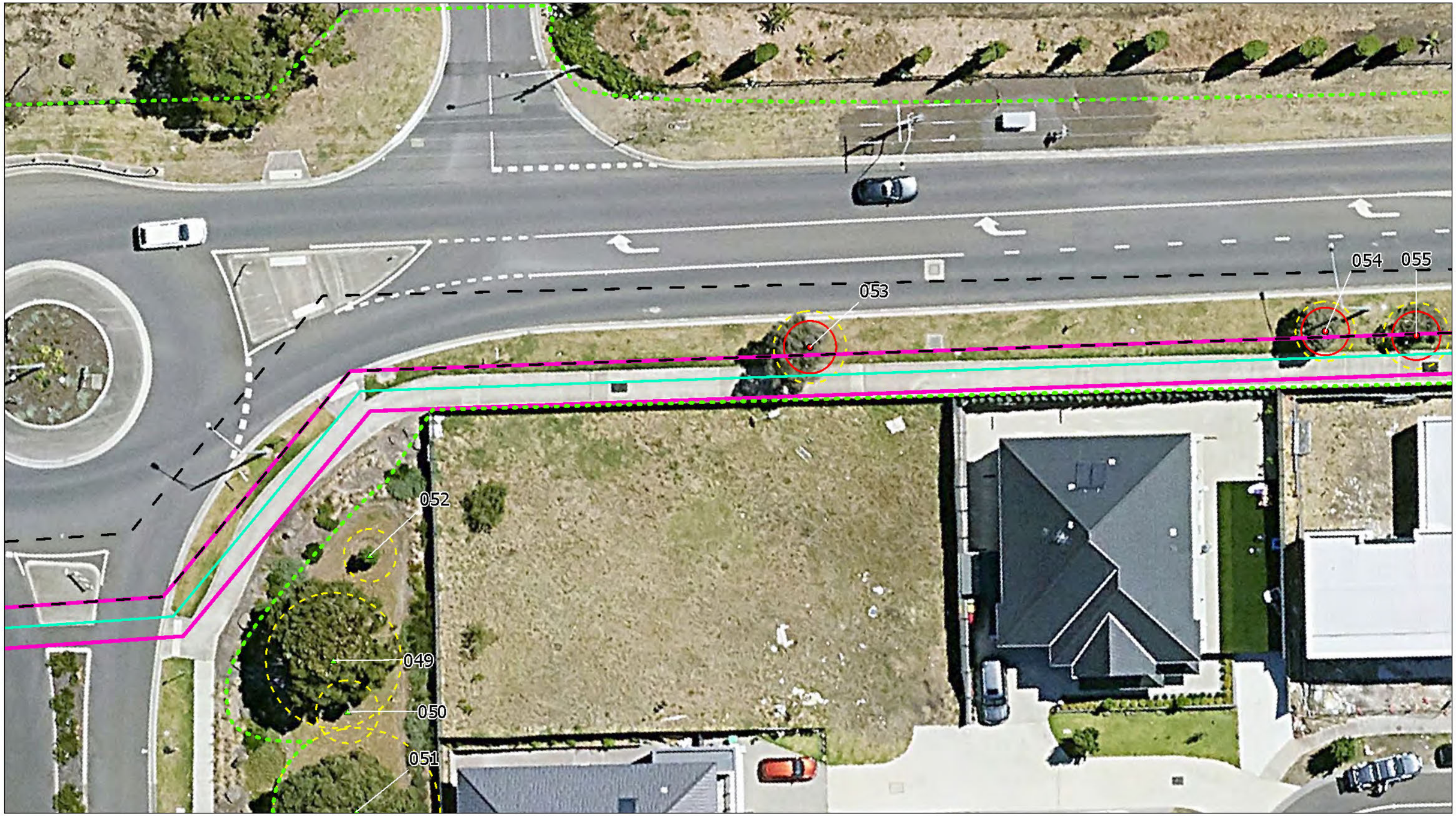


Tree Management & Protection Plan

Aurora to Bald Hill NDW Main
Craigieburn 3064 to Wallan 3756

Map 66 of 111

Project Code:300250055
Drawn By: DS, Checked By: MH
Date: 2025-10-23
Revision: B

Legend

Construction Corridor Alignment
- Construction Boundary
- Temporary Access Corridor
- Proposed Access Track
- Excavation Zone
- Pipeline Alignment
- Trenchless Shafts and Working Areas
- Indicative Shared User Path

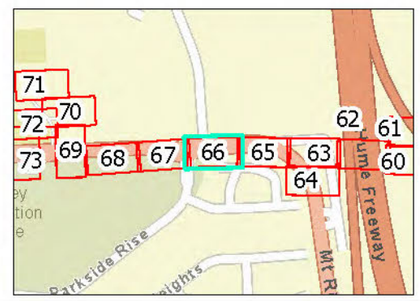
Tree
- Retain (Arboricultural data)
- Retain (Ecology data)
- Retain with supervision (Arboricultural data)
- Retain with supervision (Ecology data)
- Remove (Arboricultural data)
- Remove (Ecology data)
- Absent at time of assessment

Root Zones
- NRZ
- SRZ
- TPZ Fencing

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. MetroMap 2025.

0 2.5 5 7.5 10 Metres
Scale at A3: 1:280



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Tree Management & Protection Plan

Aurora to Bald Hill NDW Main
Craigieburn 3064 to Wallan 3756

Map 67 of 111

Project Code:300250055
Drawn By: DS, Checked By: MH
Date: 2025-10-23
Revision: B

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Legend

Construction Corridor Alignment
- Construction Boundary
- Temporary Access Corridor
- Proposed Access Track
- Excavation Zone
- Trenchless Shafts and Working Areas
- Indicative Shared User Path

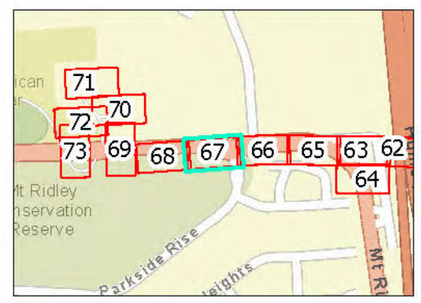
Tree
- Retain (Arboricultural data)
- Retain (Ecology data)
- Retain with supervision (Arboricultural data)
- Retain with supervision (Ecology data)
- Remove (Arboricultural data)
- Remove (Ecology data)
- Absent at time of assessment

Root Zones
- NRZ
- SRZ
- TPZ Fencing

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. MetroMap 2025.

0 2.5 5 7.5 10 Metres
Scale at A3: 1:280



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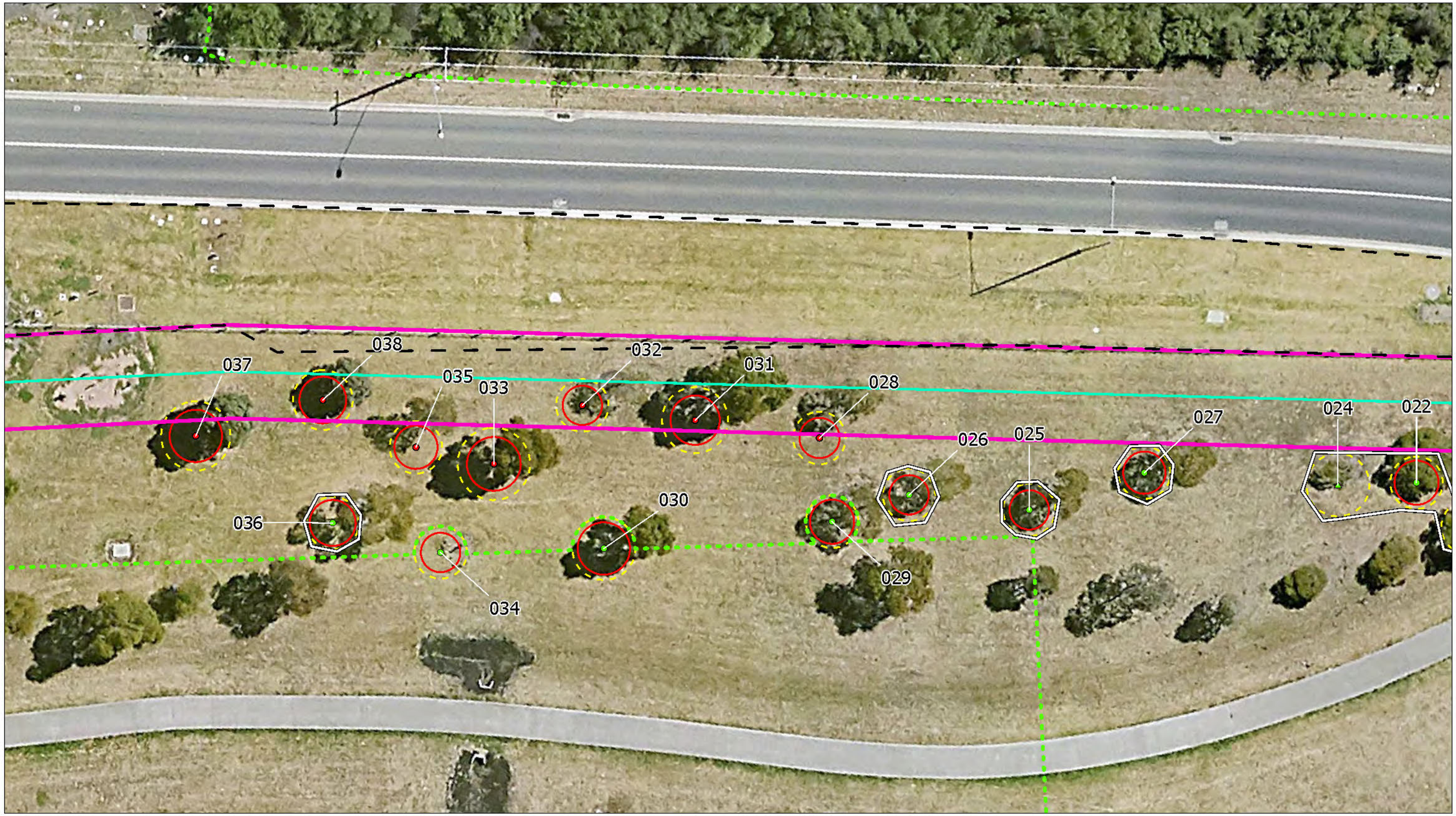


Tree Management & Protection Plan

Aurora to Bald Hill NDW Main
Craigieburn 3064 to Wallan 3756

Map 68 of 111

Project Code:300250055
Drawn By: DS, Checked By: MH
Date: 2025-10-23
Revision: B

Legend

Construction Corridor Alignment
- Construction Boundary
- Temporary Access Corridor
- Proposed Access Track
- Excavation Zone
- Stockpile/Laydown Area
- Trenchless Shafts and Working Areas
- Indicative Shared User Path

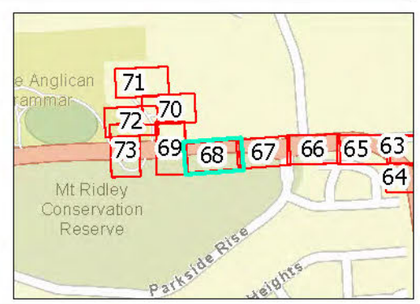
Tree
- Retain (Arboricultural data)
- Retain (Ecology data)
- Retain with supervision (Arboricultural data)
- Retain with supervision (Ecology data)
- Remove (Arboricultural data)
- Remove (Ecology data)
- Absent at time of assessment

Root Zones
- NRZ
- SRZ
- TPZ Fencing

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. MetroMap 2025.

0 2.5 5 7.5 10
Metres
Scale at A3: 1:280



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Tree Management & Protection Plan

Aurora to Bald Hill NDW Main
Craigieburn 3064 to Wallan 3756

Map 69 of 111

Project Code:300250055
Drawn By: DS, Checked By: MH
Date: 2025.10.23
Revision B

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Legend

Construction Corridor Alignment
- Construction Boundary
- Temporary Access Corridor
- Proposed Access Track
- Excavation Zone
- Trenchless Shafts and Working Areas
- Indicative Shared User Path

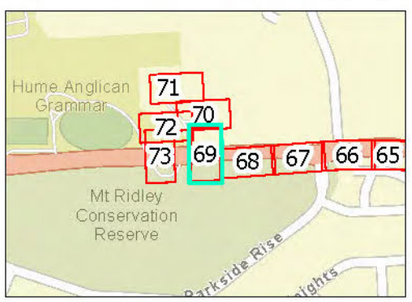
Tree
- Retain (Arboricultural data)
- Retain (Ecology data)
- Retain with supervision (Arboricultural data)
- Retain with supervision (Ecology data)
- Remove (Arboricultural data)
- Remove (Ecology data)
- Absent at time of assessment

Root Zones
- NRZ
- SRZ
- TPZ Fencing

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. MetroMap 2025.

0 2.5 5 7.5 10 Metres
Scale at A3: 1:280



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Tree Management & Protection Plan

Aurora to Bald Hill NDW Main
Craigieburn 3064 to Wallan 3756

Map 70 of 111

Project Code:300250055
Drawn By: DS, Checked By: MH
Date: 2025-10-23
Revision: B

Legend

Construction Corridor Alignment
- Construction Boundary
- Temporary Access Corridor
- Proposed Access Track
- Excavation Zone
- Pipeline Alignment
- Trenchless Shafts and Working Areas
- Indicative Shared User Path

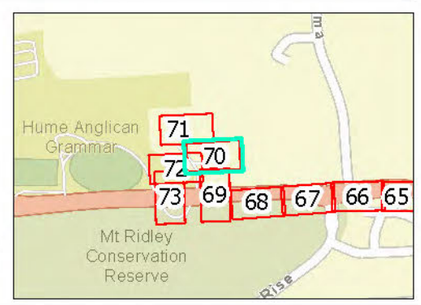
Tree
- Retain (Arboricultural data)
- Retain (Ecology data)
- Retain with supervision (Arboricultural data)
- Retain with supervision (Ecology data)
- Remove (Arboricultural data)
- Remove (Ecology data)
- Absent at time of assessment

Root Zones
- NRZ
- SRZ
- TPZ Fencing

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. MetroMap 2025.

0 2.5 5 7.5 10 Metres
Scale at A3: 1:280



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Tree Management & Protection Plan

Aurora to Bald Hill NDW Main
Craigieburn 3064 to Wallan 3756

Map 71 of 111

Project Code:300250055
Drawn By: DS, Checked By: MH
Date: 2025-10-23
Revision: B

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Legend

Construction Corridor Alignment
- Construction Boundary
- Temporary Access Corridor
- Proposed Access Track
- Excavation Zone
- Trenchless Shafts and Working Areas
- Indicative Shared User Path

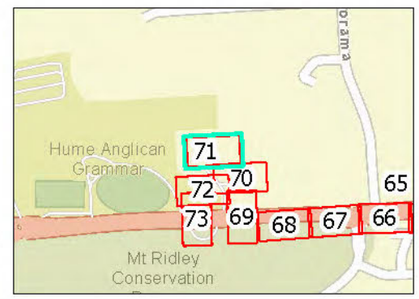
Tree
- Retain (Arboricultural data)
- Retain (Ecology data)
- Retain with supervision (Arboricultural data)
- Retain with supervision (Ecology data)
- Remove (Arboricultural data)
- Remove (Ecology data)
- Absent at time of assessment

Root Zones
- NRZ
- SRZ
- TPZ Fencing

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. MetroMap 2025.

0 2.5 5 7.5 10 Metres
Scale at A3: 1:280



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Tree Management & Protection Plan

Aurora to Bald Hill NDW Main
Craigieburn 3064 to Wallan 3756

Map 72 of 111

Project Code:300250055
Drawn By: DS, Checked By: MH
Date: 2025-10-23
Revision: B

Legend

Construction Corridor Alignment
- Construction Boundary
- Temporary Access Corridor
- Proposed Access Track
- Excavation Zone
- Other Alignments
- Trenchless Shafts and Working Areas
- Indicative Shared User Path

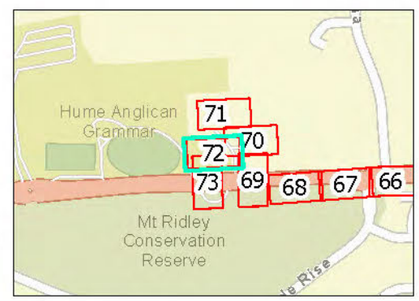
Tree
- Retain (Arboricultural data)
- Retain (Ecology data)
- Retain with supervision (Arboricultural data)
- Retain with supervision (Ecology data)
- Remove (Arboricultural data)
- Remove (Ecology data)
- Absent at time of assessment

Root Zones
- NRZ
- SRZ
- TPZ Fencing

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. MetroMap 2025.

0 2.5 5 7.5 10 Metres
Scale at A3: 1:280



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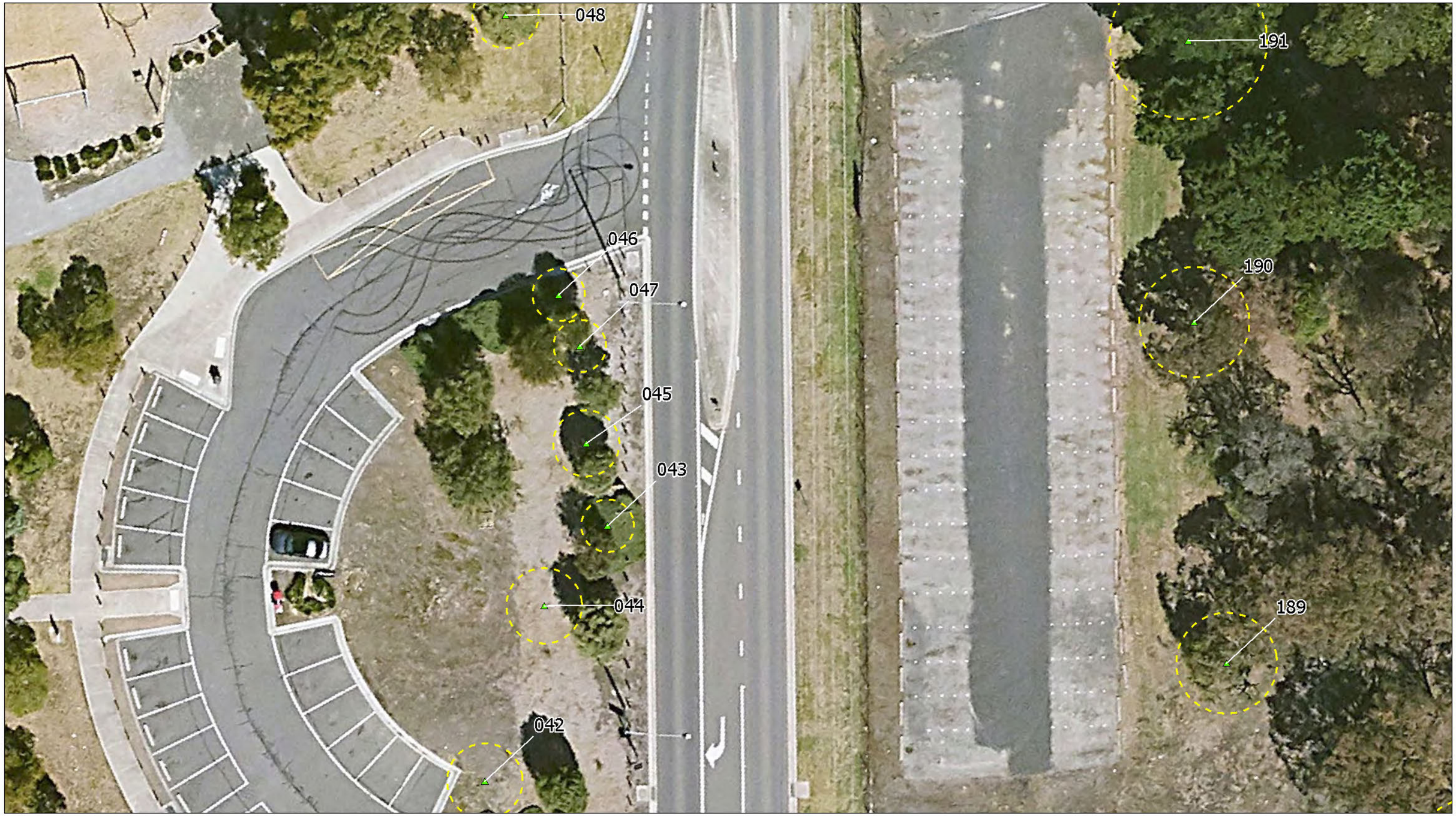


Tree Management & Protection Plan

Aurora to Bald Hill NDW Main
Craigieburn 3064 to Wallan 3756

Map 73 of 111

Project Code:300250055
Drawn By: DS, Checked By: MH
Date: 2025-10-23
Revision: B

Legend

Construction Corridor Alignment
- Construction Boundary
- Temporary Access Corridor
- Proposed Access Track
- Excavation Zone
- Pipeline Alignment
- Trenchless Shafts and Working Areas
- Indicative Shared User Path

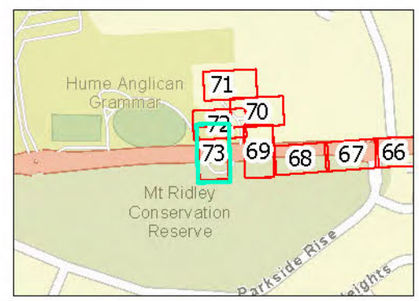
Tree
- Retain (Arboricultural data)
- Retain (Ecology data)
- Retain with supervision (Arboricultural data)
- Retain with supervision (Ecology data)
- Remove (Arboricultural data)
- Remove (Ecology data)
- Absent at time of assessment

Root Zones
- NRZ
- SRZ
- TPZ Fencing

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. MetroMap 2025.

0 2.5 5 7.5 10 Metres
Scale at A3: 1:280



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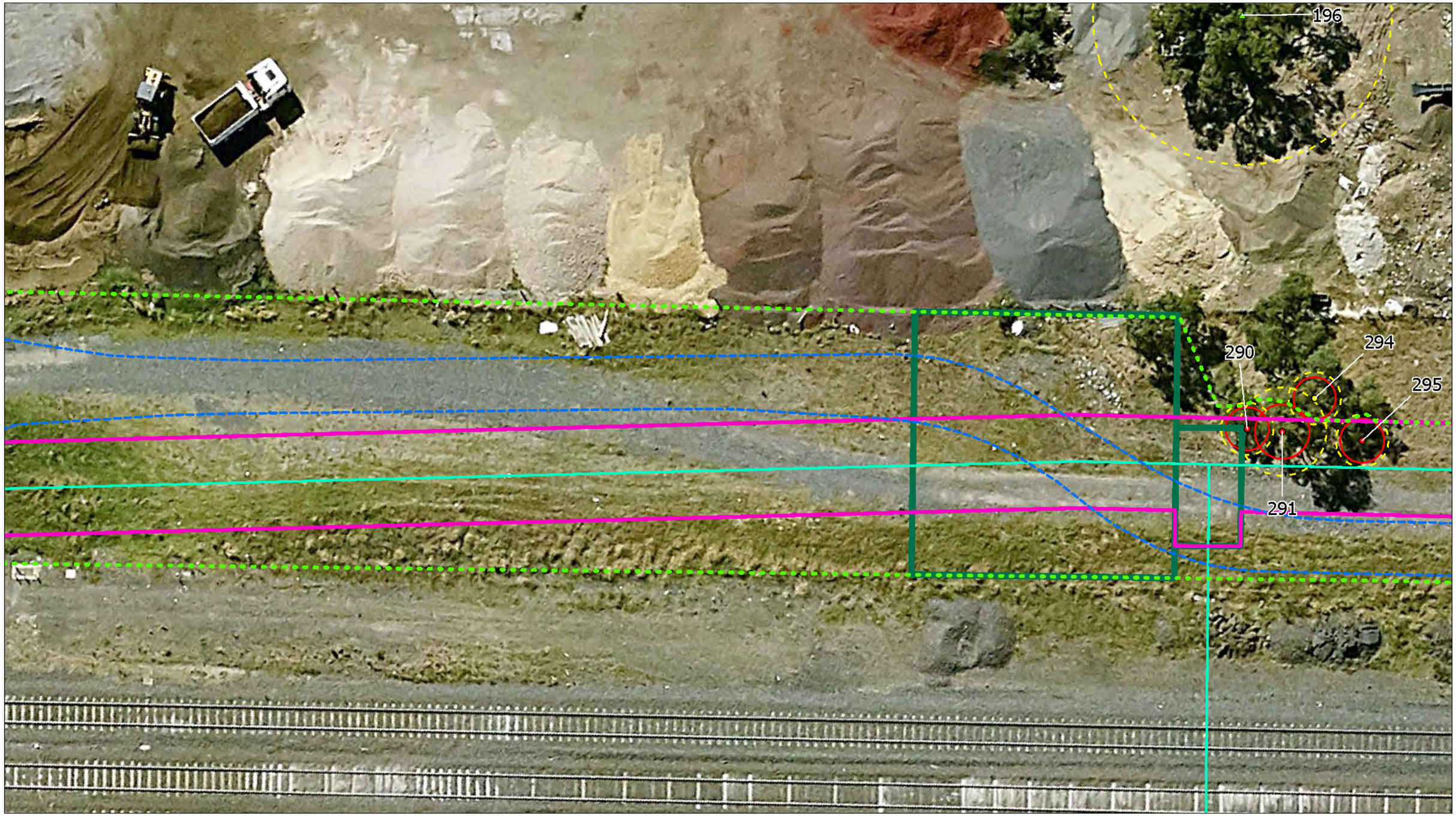


Tree Management & Protection Plan

Aurora to Bald Hill NDW Main
Craigieburn 3064 to Wallan 3756

Map 74 of 111

Project Code:300250055
Drawn By: DS, Checked By: MH
Date: 2025.10.31
Revision: B

Legend

Construction Corridor Alignment
- Construction Boundary
- Temporary Access Corridor
- Proposed Access Track
- Excavation Zone
- Trenchless Shafts and Working Areas
- Indicative Shared User Path

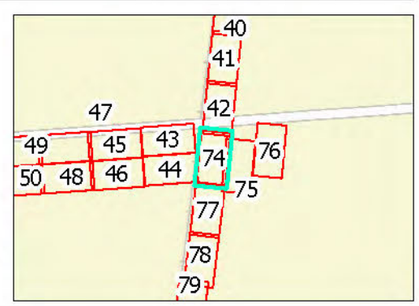
Tree
- Retain (Arboricultural data)
- Retain (Ecology data)
- Retain with supervision (Arboricultural data)
- Retain with supervision (Ecology data)
- Remove (Arboricultural data)
- Remove (Ecology data)
- Absent at time of assessment

Root Zones
- NRZ
- SRZ
- TPZ Fencing

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. MetroMap 2025.

0 2.5 5 7.5 10 Metres
Scale at A3: 1:280



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Tree Management & Protection Plan

Aurora to Bald Hill NDW Main
Craigieburn 3064 to Wallan 3756

Map 75 of 111

Project Code:300250055
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Date: 2025.10.23
Revision: B

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Legend

Construction Corridor Alignment
- Construction Boundary
- Temporary Access Corridor
- Proposed Access Track
- Excavation Zone
- Trenchless Shafts and Working Areas
- Indicative Shared User Path

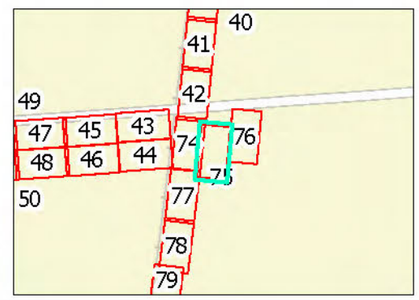
Tree
- Retain (Arboricultural data)
- Retain (Ecology data)
- Retain with supervision (Arboricultural data)
- Retain with supervision (Ecology data)
- Remove (Arboricultural data)
- Remove (Ecology data)
- Absent at time of assessment

Root Zones
- NRZ
- SRZ
- TPZ Fencing

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. MetroMap 2025.

0 2.5 5 7.5 10 Metres
Scale at A3: 1:280



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Tree Management & Protection Plan

Aurora to Bald Hill NDW Main
Craigieburn 3064 to Wallan 3756

Map 76 of 111

Project Code:300250055
Drawn By: DS, Checked By: MH
Date: 10/25 10:31
Revision: B

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Legend

Construction Corridor Alignment
- Construction Boundary
- Temporary Access Corridor
- Proposed Access Track
- Excavation Zone
- Trenchless Shafts and Working Areas
- Indicative Shared User Path

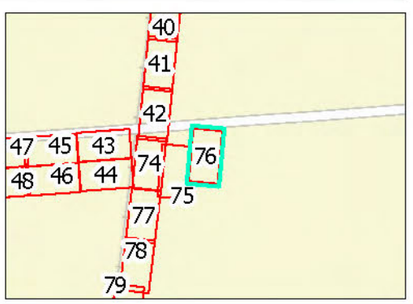
Tree
- Retain (Arboricultural data)
- Retain (Ecology data)
- Retain with supervision (Arboricultural data)
- Retain with supervision (Ecology data)
- Remove (Arboricultural data)
- Remove (Ecology data)
- Absent at time of assessment

Root Zones
- NRZ
- SRZ
- TPZ Fencing

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. MetroMap 2025.

0 2.5 5 7.5 10 Metres
Scale at A3: 1:280



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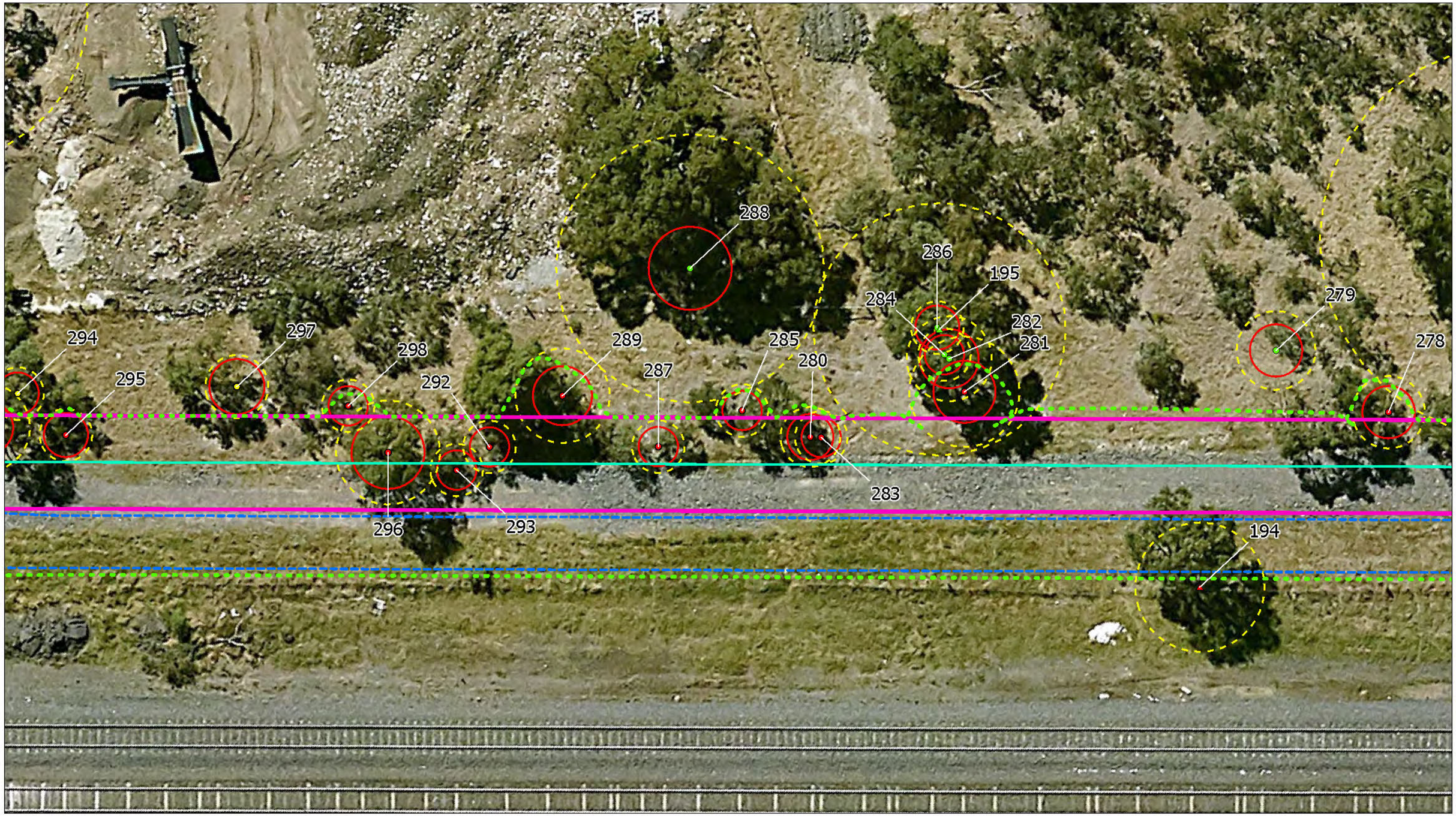


Tree Management & Protection Plan

Aurora to Bald Hill NDW Main
Craigieburn 3064 to Wallan 3756

Map 77 of 111

Project Code:300250055
Drawn By: DS, Checked By: MH
Date: 10.25 (A3)
Revision: B

Legend

Construction Corridor Alignment
- Construction Boundary
- Temporary Access Corridor
- Proposed Access Track
- Excavation Zone
- Trenchless Shafts and Working Areas
- Indicative Shared User Path

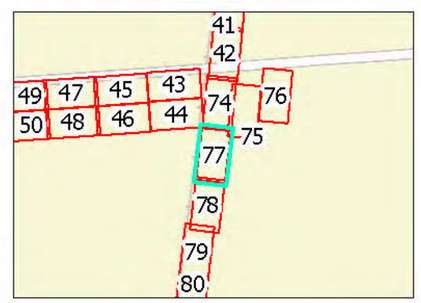
Tree
- Retain (Arboricultural data)
- Retain (Ecology data)
- Retain with supervision (Arboricultural data)
- Retain with supervision (Ecology data)
- Remove (Arboricultural data)
- Remove (Ecology data)
- Absent at time of assessment

Root Zones
- NRZ
- SRZ
- TPZ Fencing

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. MetroMap 2025.

0 2.5 5 7.5 10
Metres
Scale at A3: 1:280



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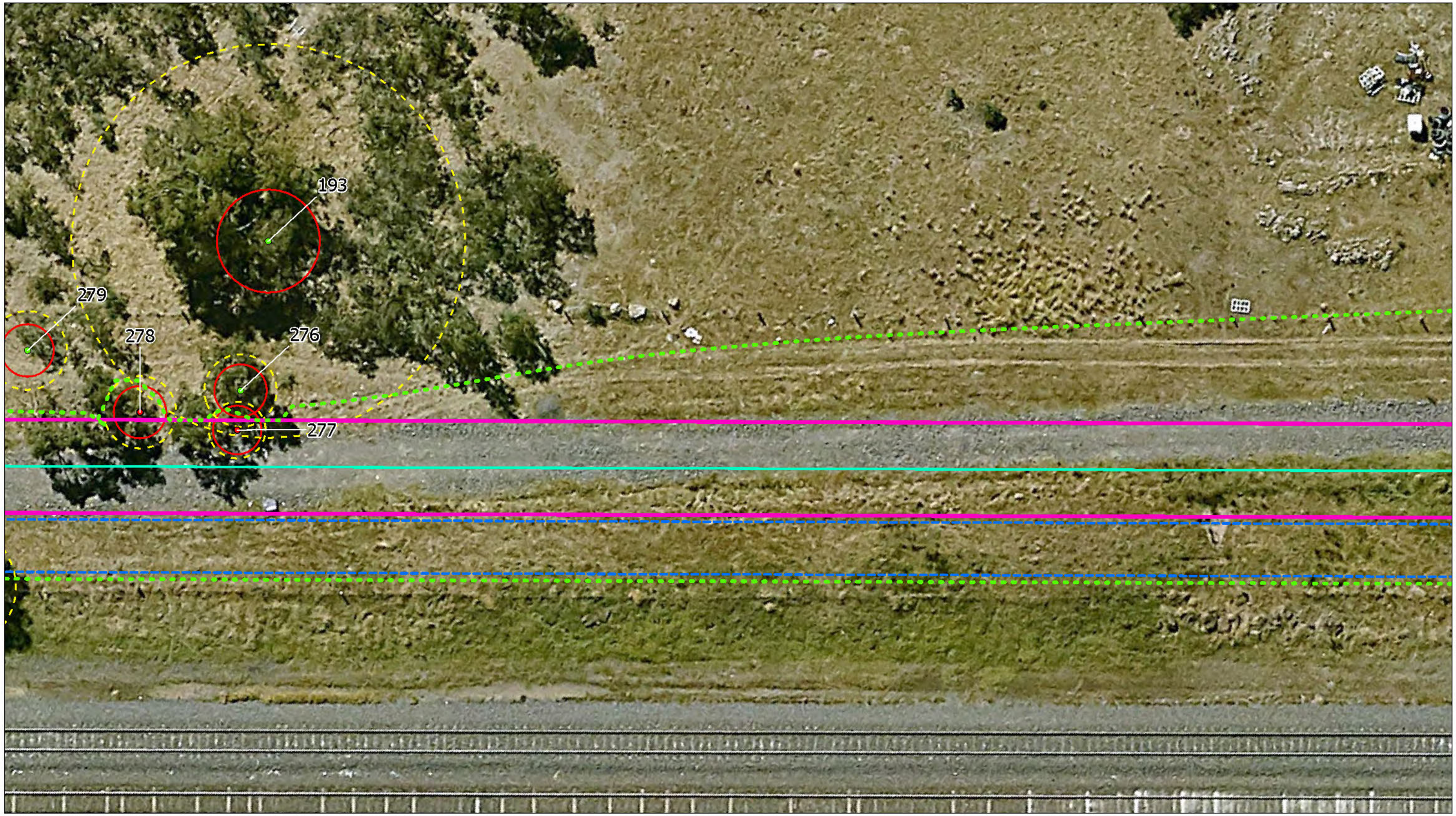


Tree Management & Protection Plan

Aurora to Bald Hill NDW Main
Craigieburn 3064 to Wallan 3756

Map 78 of 111

Project Code:300250055
Drawn By: DS, Checked By: MH
Date: 2025-10-23
Revision: B

Legend

Construction Corridor Alignment
- Construction Boundary
- Temporary Access Corridor
- Proposed Access Track
- Excavation Zone
- Pipeline Alignment
- Trenchless Shafts and Working Areas
- Indicative Shared User Path

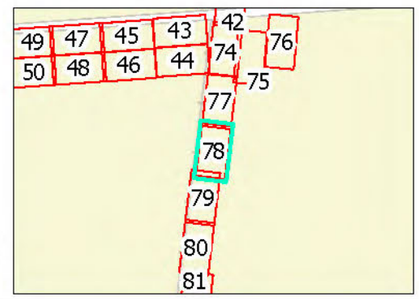
Tree
- Retain (Arboricultural data)
- Retain (Ecology data)
- Retain with supervision (Arboricultural data)
- Retain with supervision (Ecology data)
- Remove (Arboricultural data)
- Remove (Ecology data)
- Absent at time of assessment

Root Zones
- NRZ
- SRZ
- TPZ Fencing

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. MetroMap 2025.

0 2.5 5 7.5 10 Metres
Scale at A3: 1:280



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Tree Management & Protection Plan

Aurora to Bald Hill NDW Main
Craigieburn 3064 to Wallan 3756

Map 79 of 111

Project Code:300250055
Drawn By: DS, Checked By: MH
Date: 2025.10.23
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Legend

Construction Corridor Alignment
- Construction Boundary
- Temporary Access Corridor
- Proposed Access Track
- Excavation Zone
- Stockpile/Laydown Area
- Trenchless Shafts and Working Areas
- Indicative Shared User Path

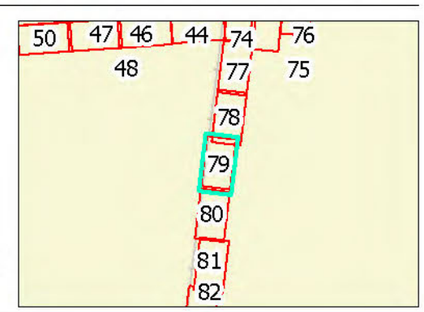
Tree
- Retain (Arboricultural data)
- Retain (Ecology data)
- Retain with supervision (Arboricultural data)
- Retain with supervision (Ecology data)
- Remove (Arboricultural data)
- Remove (Ecology data)
- Absent at time of assessment

Root Zones
- NRZ
- SRZ
- TPZ Fencing

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. MetroMap 2025.

0 2.5 5 7.5 10 Metres
Scale at A3: 1:280



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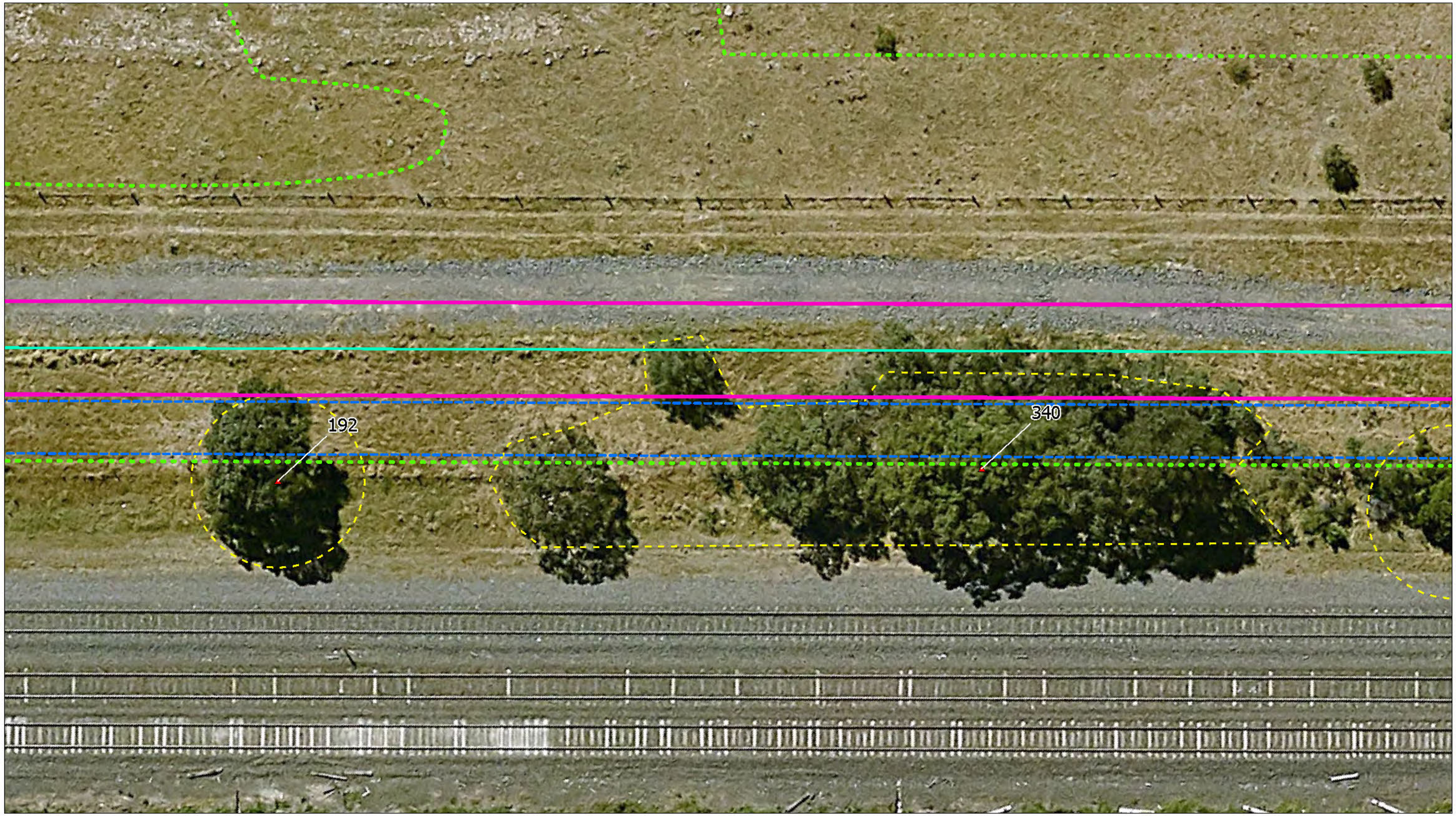

Tree Management & Protection Plan

Aurora to Bald Hill NDW Main
Craigieburn 3064 to Wallan 3756

Map 80 of 111

Project Code:300250055
Drawn By: DS, Checked By: MH
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Legend

Construction Corridor Alignment
- Construction Boundary
- Temporary Access Corridor
- Proposed Access Track
- Excavation Zone
- Trenchless Shafts and Working Areas
- Indicative Shared User Path

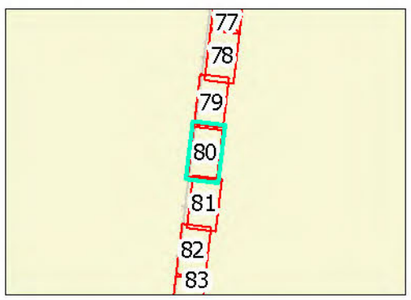
Tree
- Retain (Arboricultural data)
- Retain (Ecology data)
- Retain with supervision (Arboricultural data)
- Retain with supervision (Ecology data)
- Remove (Arboricultural data)
- Remove (Ecology data)
- Absent at time of assessment

Root Zones
- NRZ
- SRZ
- TPZ Fencing

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. MetroMap 2025.

0 2.5 5 7.5 10 Metres
Scale at A3: 1:280



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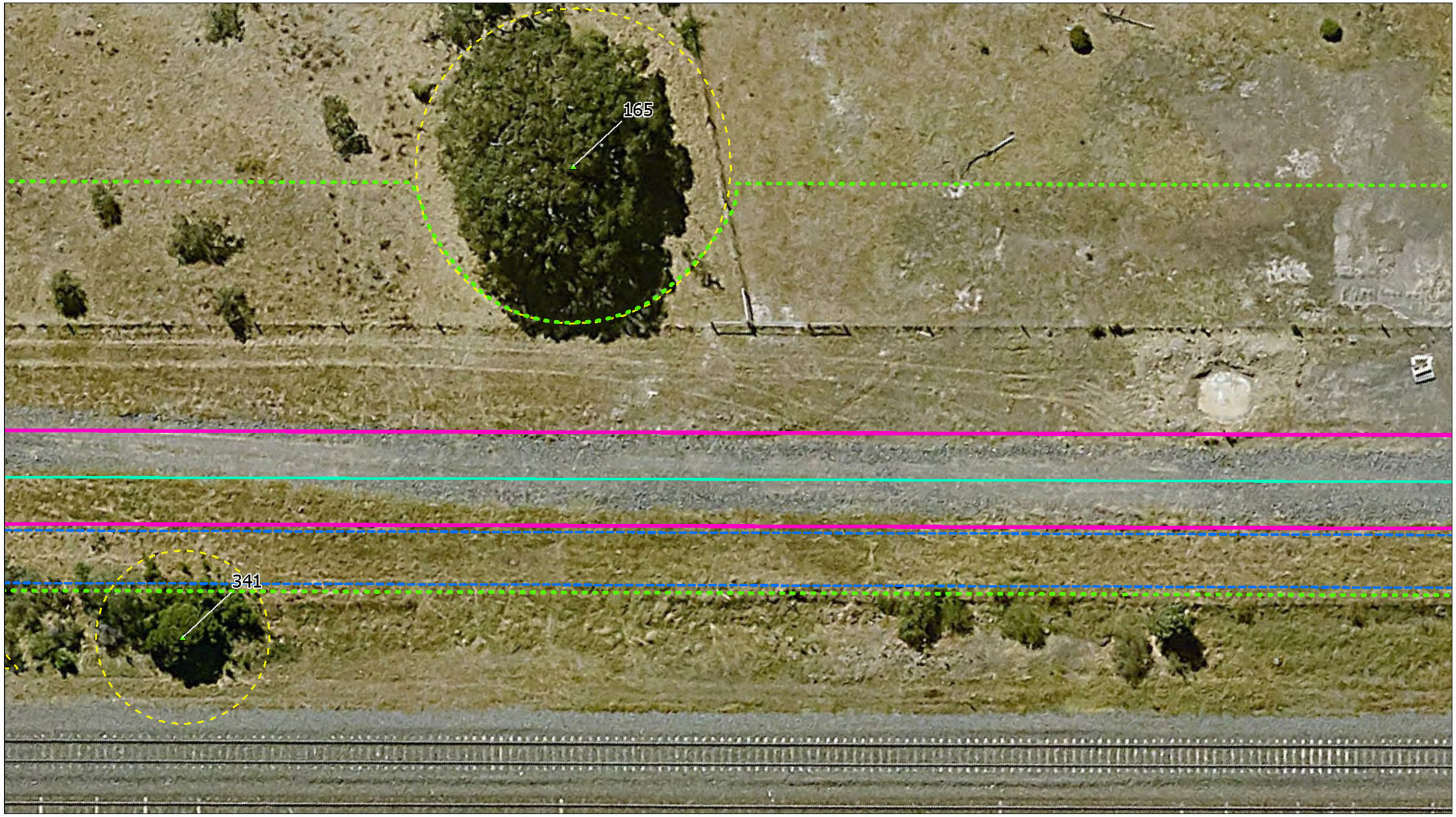


Tree Management & Protection Plan

Aurora to Bald Hill NDW Main
Craigieburn 3064 to Wallan 3756

Map 81 of 111

Project Code:300250055
Drawn By: DS, Checked By: MH
Date:2025.10.23
Revision: B

Legend

Construction Corridor Alignment
- Construction Boundary
- Temporary Access Corridor
- Proposed Access Track
- Excavation Zone
- Spoil Stockpile Area
- Trenchless Shafts and Working Areas
- Indicative Shared User Path

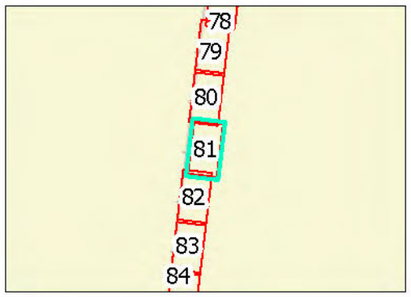
Tree
- Retain (Arboricultural data)
- Retain (Ecology data)
- Retain with supervision (Arboricultural data)
- Retain with supervision (Ecology data)
- Remove (Arboricultural data)
- Remove (Ecology data)
- Absent at time of assessment

Root Zones
- NRZ
- SRZ
- TPZ Fencing

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. MetroMap 2025.

0 2.5 5 7.5 10 Metres
Scale at A3: 1:280



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Tree Management & Protection Plan

Aurora to Bald Hill NDW Main
Craigieburn 3064 to Wallan 3756

Map 82 of 111

Project Code:300250055
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Legend

Construction Corridor Alignment
- Construction Boundary
- Temporary Access Corridor
- Proposed Access Track
- Excavation Zone
- Trenchless Shafts and Working Areas
- Indicative Shared User Path

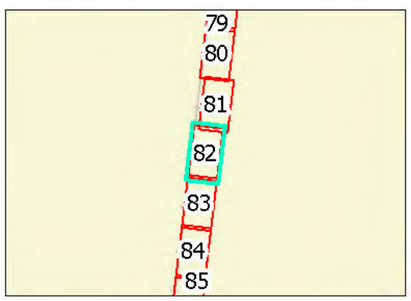
Tree
- Retain (Arboricultural data)
- Retain (Ecology data)
- Retain with supervision (Arboricultural data)
- Retain with supervision (Ecology data)
- Remove (Arboricultural data)
- Remove (Ecology data)
- Absent at time of assessment

Root Zones
- NRZ
- SRZ
- TPZ Fencing

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. MetroMap 2025.

0 2.5 5 7.5 10 Metres
Scale at A3: 1:280



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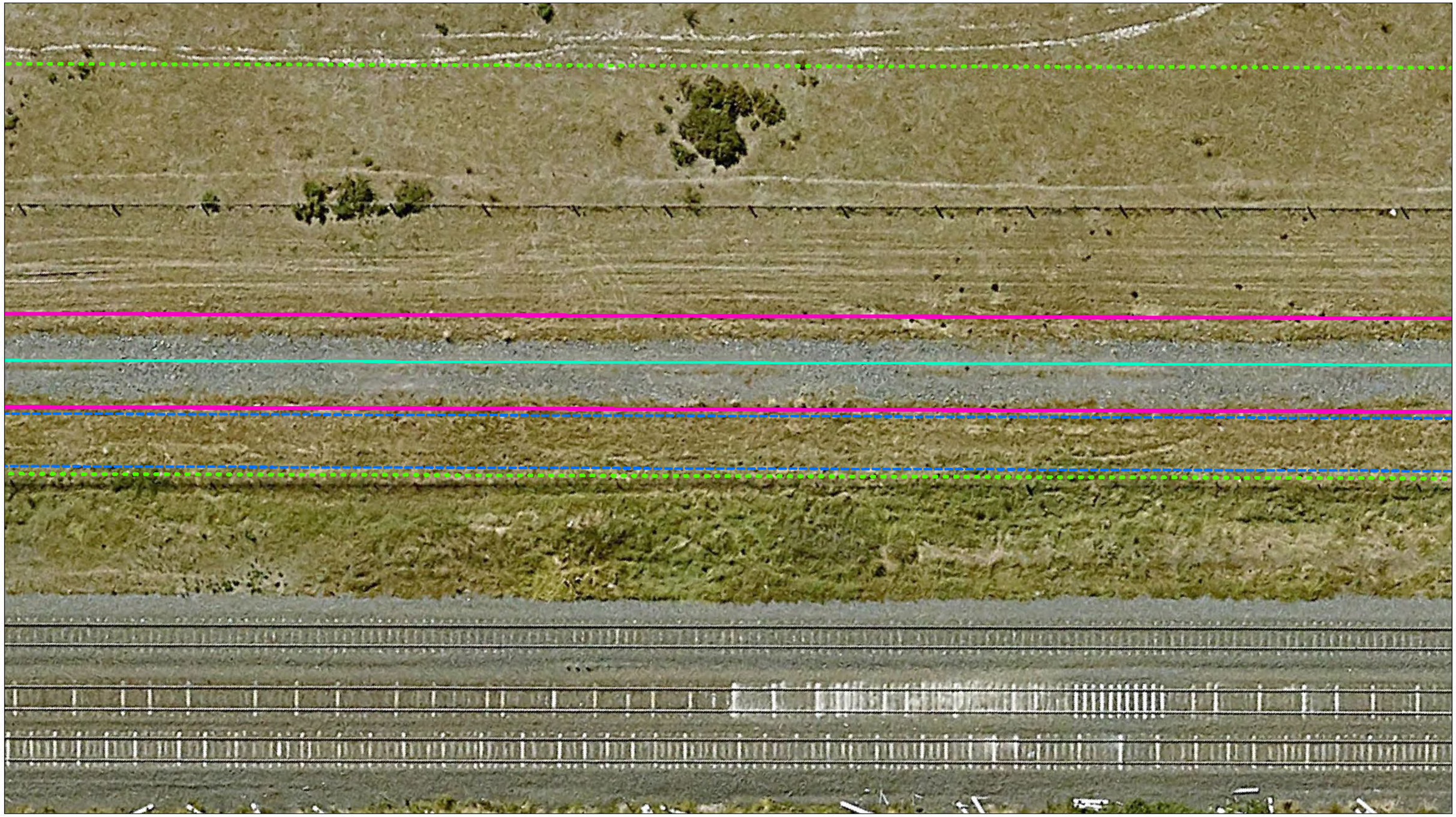

Tree Management & Protection Plan

Aurora to Bald Hill NDW Main
Craigieburn 3064 to Wallan 3756

Map 83 of 111

Project Code:300250055
Drawn By: DS, Checked By: MH
Date: 2025.10.23
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Legend

Construction Corridor Alignment
- Construction Boundary
- Temporary Access Corridor
- Proposed Access Track
- Excavation Zone
- Extent of Plant Area
- Trenchless Shafts and Working Areas
- Indicative Shared User Path

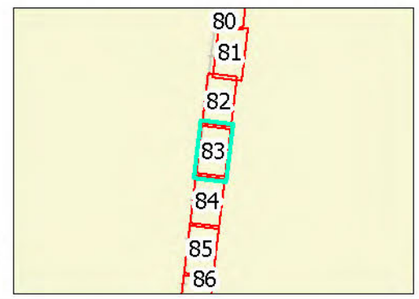
Tree
- Retain (Arboricultural data)
- Retain (Ecology data)
- Retain with supervision (Arboricultural data)
- Retain with supervision (Ecology data)
- Remove (Arboricultural data)
- Remove (Ecology data)
- Absent at time of assessment

Root Zones
- NRZ
- SRZ
- TPZ Fencing

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. MetroMap 2025.

0 2.5 5 7.5 10 Metres
Scale at A3: 1:280



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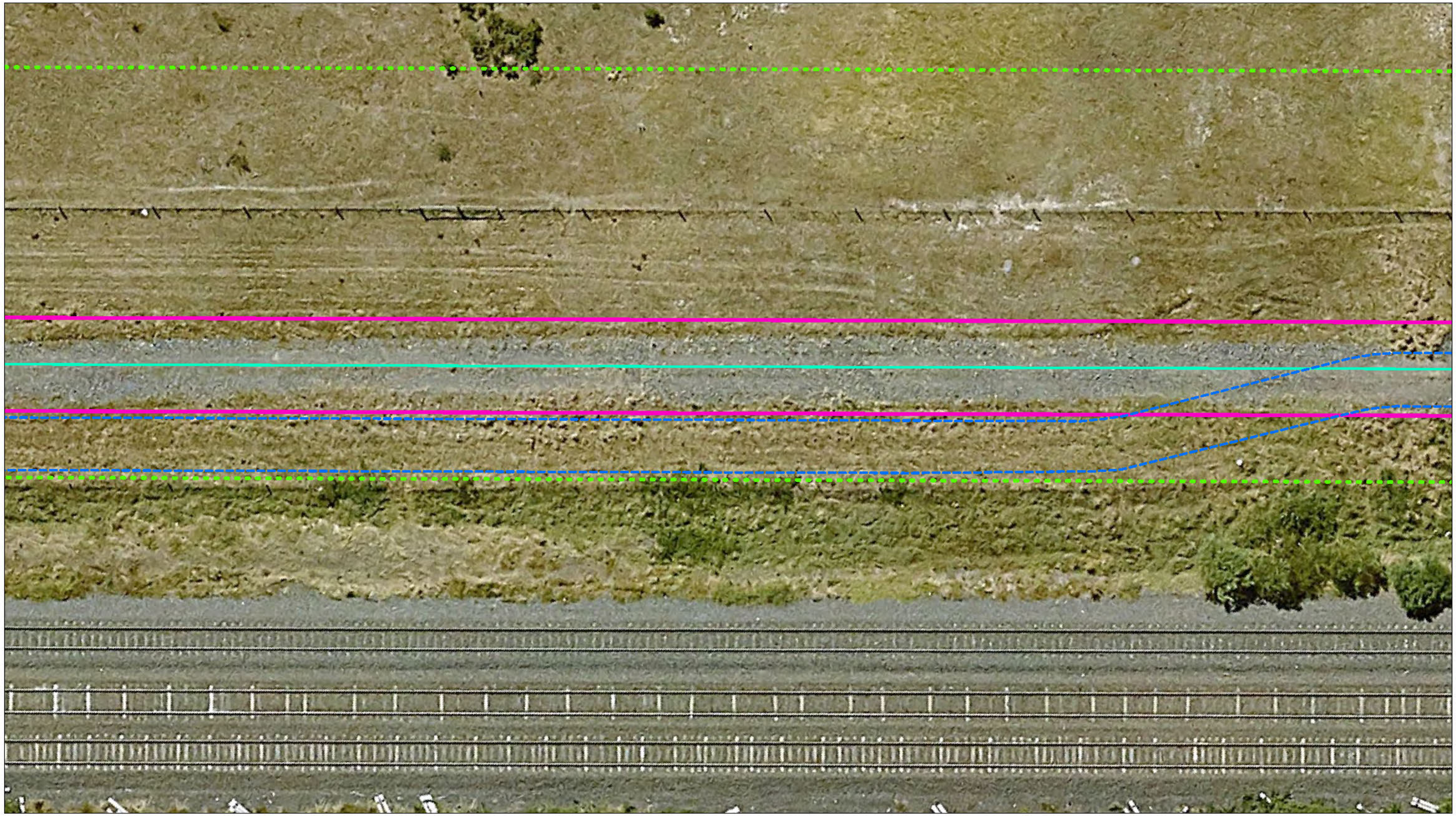


Tree Management & Protection Plan

Aurora to Bald Hill NDW Main
Craigieburn 3064 to Wallan 3756

Map 84 of 111

Project Code:300250055
Drawn By: DS, Checked By: MH
Date: 10/25 (A3)
Revision: B

Legend

Construction Corridor Alignment
- Construction Boundary
- Temporary Access Corridor
- Proposed Access Track
- Excavation Zone
- Extent of Impact
- Trenchless Shafts and Working Areas
- Indicative Shared User Path

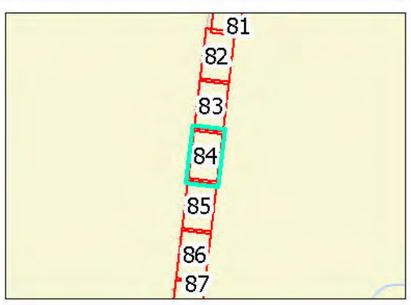
Tree
- Retain (Arboricultural data)
- Retain (Ecology data)
- Retain with supervision (Arboricultural data)
- Retain with supervision (Ecology data)
- Remove (Arboricultural data)
- Remove (Ecology data)
- Absent at time of assessment

Root Zones
- NRZ
- SRZ
- TPZ Fencing

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. MetroMap 2025.

0 2.5 5 7.5 10 Metres
Scale at A3: 1:280



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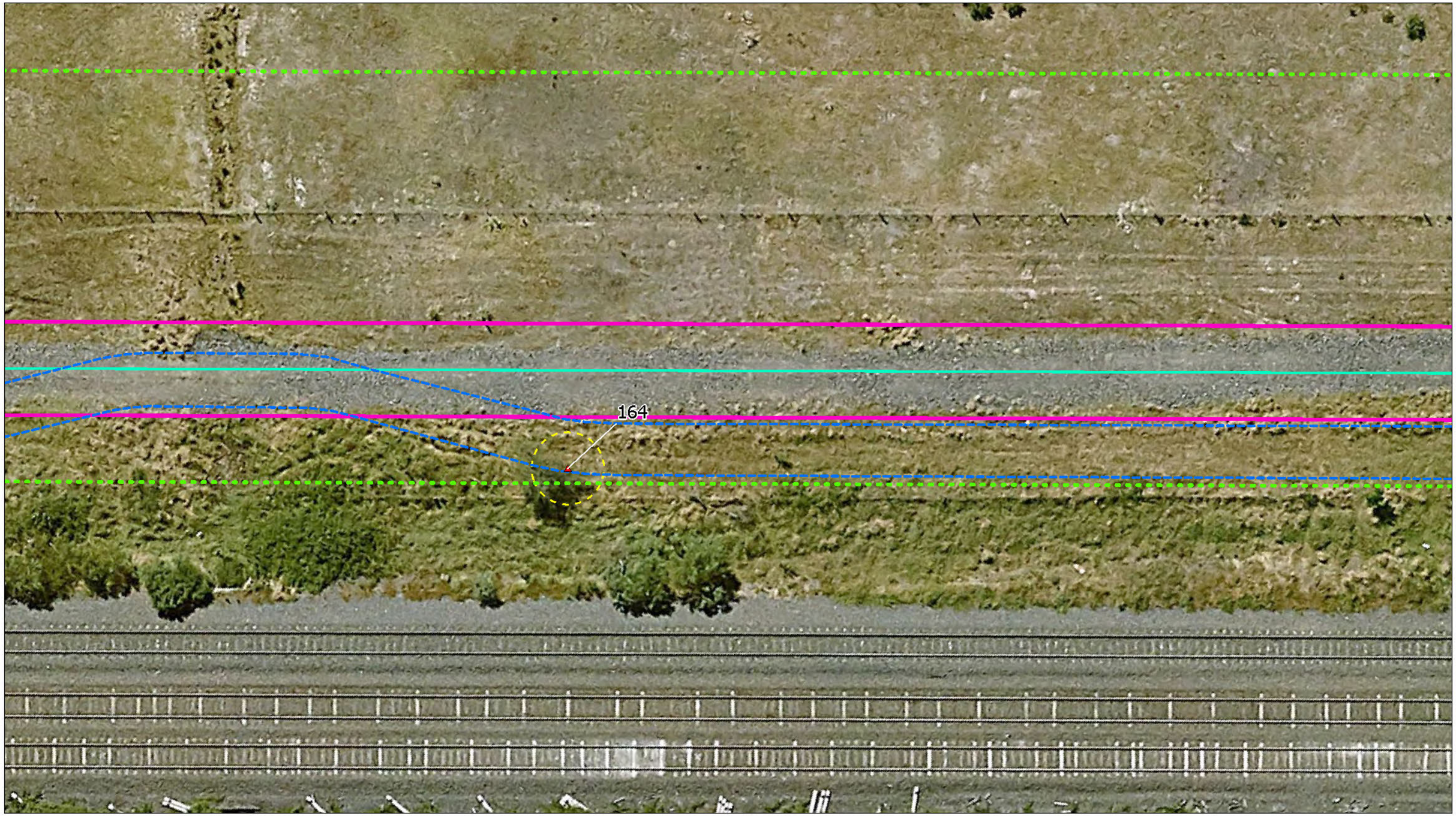


Tree Management & Protection Plan

Aurora to Bald Hill NDW Main
Craigieburn 3064 to Wallan 3756

Map 85 of 111

Project Code:300250055
Drawn By: DS, Checked By: MH
Date: 2025-10-31
Revision: B

Legend

Construction Corridor Alignment
- Construction Boundary
- Temporary Access Corridor
- Proposed Access Track
- Excavation Zone
- Depth of Excavation
- Trenchless Shafts and Working Areas
- Indicative Shared User Path

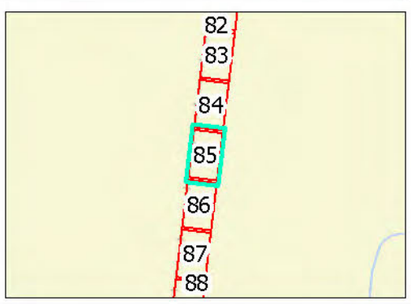
Tree
- Retain (Arboricultural data)
- Retain (Ecology data)
- Retain with supervision (Arboricultural data)
- Retain with supervision (Ecology data)
- Remove (Arboricultural data)
- Remove (Ecology data)
- Absent at time of assessment

Root Zones
- NRZ
- SRZ
- TPZ Fencing

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. MetroMap 2025.

0 2.5 5 7.5 10 Metres
Scale at A3: 1:280



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Tree Management & Protection Plan

Aurora to Bald Hill NDW Main
Craigieburn 3064 to Wallan 3756

Map 86 of 111

Project Code:300250055
Drawn By: DS, Checked By: MH
Date: 2025-10-23
Revision: B

Legend

Construction Corridor Alignment
- Construction Boundary
- Temporary Access Corridor
- Proposed Access Track
- Excavation Zone
- Plant Site Alignments
- Trenchless Shafts and Working Areas
- Indicative Shared User Path

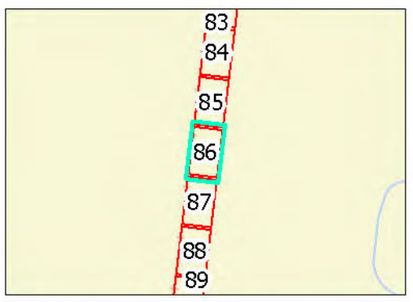
Tree
- Retain (Arboricultural data)
- Retain (Ecology data)
- Retain with supervision (Arboricultural data)
- Retain with supervision (Ecology data)
- Remove (Arboricultural data)
- Remove (Ecology data)
- Absent at time of assessment

Root Zones
- NRZ
- SRZ
- TPZ Fencing

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. MetroMap 2025.

0 2.5 5 7.5 10 Metres
Scale at A3: 1:280



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Tree Management & Protection Plan

Aurora to Bald Hill NDW Main
Craigieburn 3064 to Wallan 3756

Map 87 of 111

Project Code:300250055
Drawn By: DS, Checked By: MH
Date: 2025.10.23
Revision: B

Legend

Construction Corridor Alignment

- Construction Boundary
- Temporary Access Corridor
- Proposed Access Track
- Excavation Zone
- Trenchless Shafts and Working Areas
- Indicative Shared User Path

Tree

- Retain (Arboricultural data)
- Retain (Ecology data)
- Retain with supervision (Arboricultural data)
- Retain with supervision (Ecology data)
- Remove (Arboricultural data)
- Remove (Ecology data)
- Absent at time of assessment

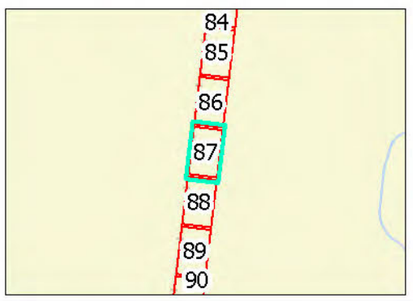
Root Zones

- NRZ
- SRZ
- TPZ Fencing

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. MetroMap 2025.

0 2.5 5 7.5 10
Metres
Scale at A3: 1:260



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Tree Management & Protection Plan

Aurora to Bald Hill NDW Main
Craigieburn 3064 to Wallan 3756

Map 88 of 111

Project Code:300250055
Drawn By: DS, Checked By: MH
Date: 2025-10-23
Revision: B

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Legend

Construction Corridor Alignment
- Construction Boundary
- Temporary Access Corridor
- Proposed Access Track
- Excavation Zone
- Trenchless Shafts and Working Areas
- Indicative Shared User Path

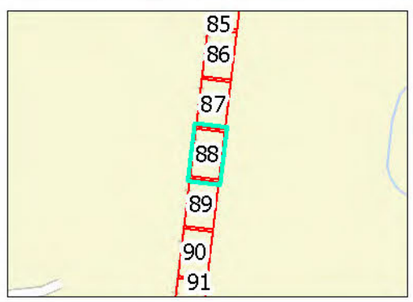
Tree
- Retain (Arboricultural data)
- Retain (Ecology data)
- Retain with supervision (Arboricultural data)
- Retain with supervision (Ecology data)
- Remove (Arboricultural data)
- Remove (Ecology data)
- Absent at time of assessment

Root Zones
- NRZ
- SRZ
- TPZ Fencing

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. MetroMap 2025.

0 2.5 5 7.5 10 Metres
Scale at A3: 1:280



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Tree Management & Protection Plan

Aurora to Bald Hill NDW Main
Craigieburn 3064 to Wallan 3756

Map 89 of 111

Project Code:300250055
Drawn By: DS, Checked By: MH
Date: 2025.10.31
Revision: B

Legend

Construction Corridor Alignment
- Construction Boundary
- Temporary Access Corridor
- Proposed Access Track
- Excavation Zone
- Extent of Impact
- Trenchless Shafts and Working Areas
- Indicative Shared User Path

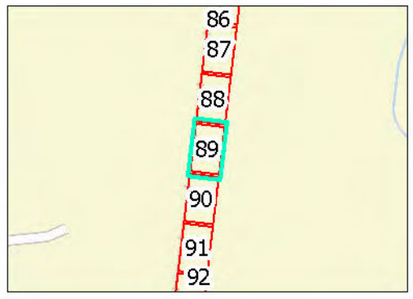
Tree
- Retain (Arboricultural data)
- Retain (Ecology data)
- Retain with supervision (Arboricultural data)
- Retain with supervision (Ecology data)
- Remove (Arboricultural data)
- Remove (Ecology data)
- Absent at time of assessment

Root Zones
- NRZ
- SRZ
- TPZ Fencing

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. MetroMap 2025.

0 2.5 5 7.5 10 Metres
Scale at A3: 1:280



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Tree Management & Protection Plan

Aurora to Bald Hill NDW Main
Craigieburn 3064 to Wallan 3756

Map 90 of 111

Project Code:300250055
Drawn By: DS, Checked By: MH
Date: 2025.10.23
Revision: B

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Legend

Construction Corridor Alignment
- Construction Boundary
- Temporary Access Corridor
- Proposed Access Track
- Excavation Zone
- Trenchless Shafts and Working Areas
- Indicative Shared User Path

Tree
- Retain (Arboricultural data)
- Retain (Ecology data)
- Retain with supervision (Arboricultural data)
- Retain with supervision (Ecology data)
- Remove (Arboricultural data)
- Remove (Ecology data)
- Absent at time of assessment

Root Zones
- NRZ
- SRZ
- TPZ Fencing

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. MetroMap 2025.

0 2.5 5 7.5 10 Metres
Scale at A3: 1:280



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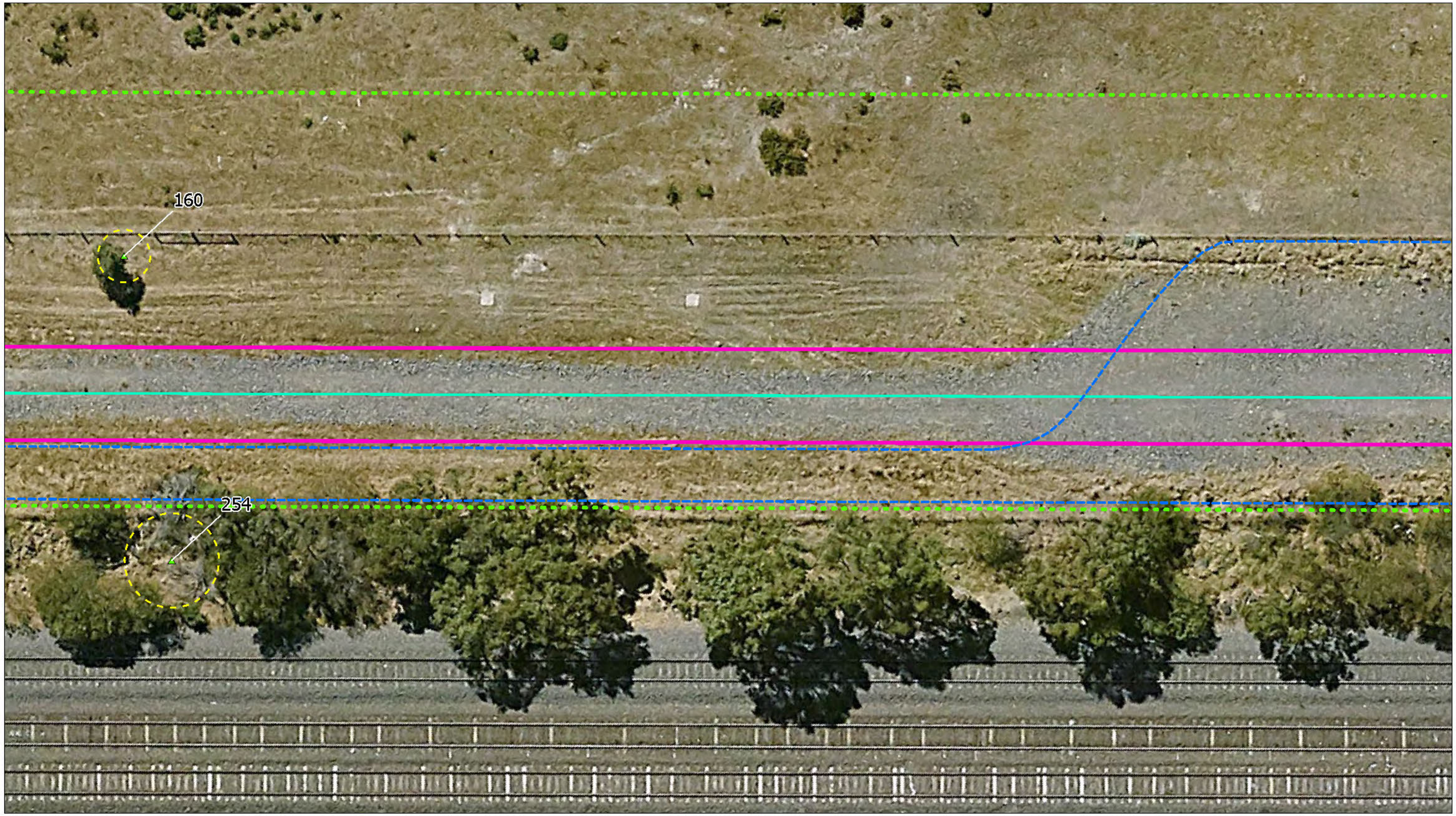

Tree Management & Protection Plan

Aurora to Bald Hill NDW Main
Craigieburn 3064 to Wallan 3756

Map 91 of 111

Project Code:300250055
Drawn By: DS, Checked By: MH
Date: 2025-10-23
Revision: B

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Legend

Construction Corridor Alignment
- Construction Boundary
- Temporary Access Corridor
- Proposed Access Track
- Excavation Zone
- Trenchless Shafts and Working Areas
- Indicative Shared User Path

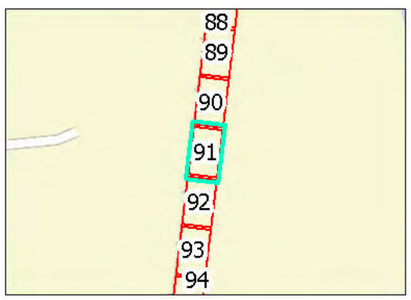
Tree
- Retain (Arboricultural data)
- Retain (Ecology data)
- Retain with supervision (Arboricultural data)
- Retain with supervision (Ecology data)
- Remove (Arboricultural data)
- Remove (Ecology data)
- Absent at time of assessment

Root Zones
- NRZ
- SRZ
- TPZ Fencing

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. MetroMap 2025.

0 2.5 5 7.5 10 Metres
Scale at A3: 1:260



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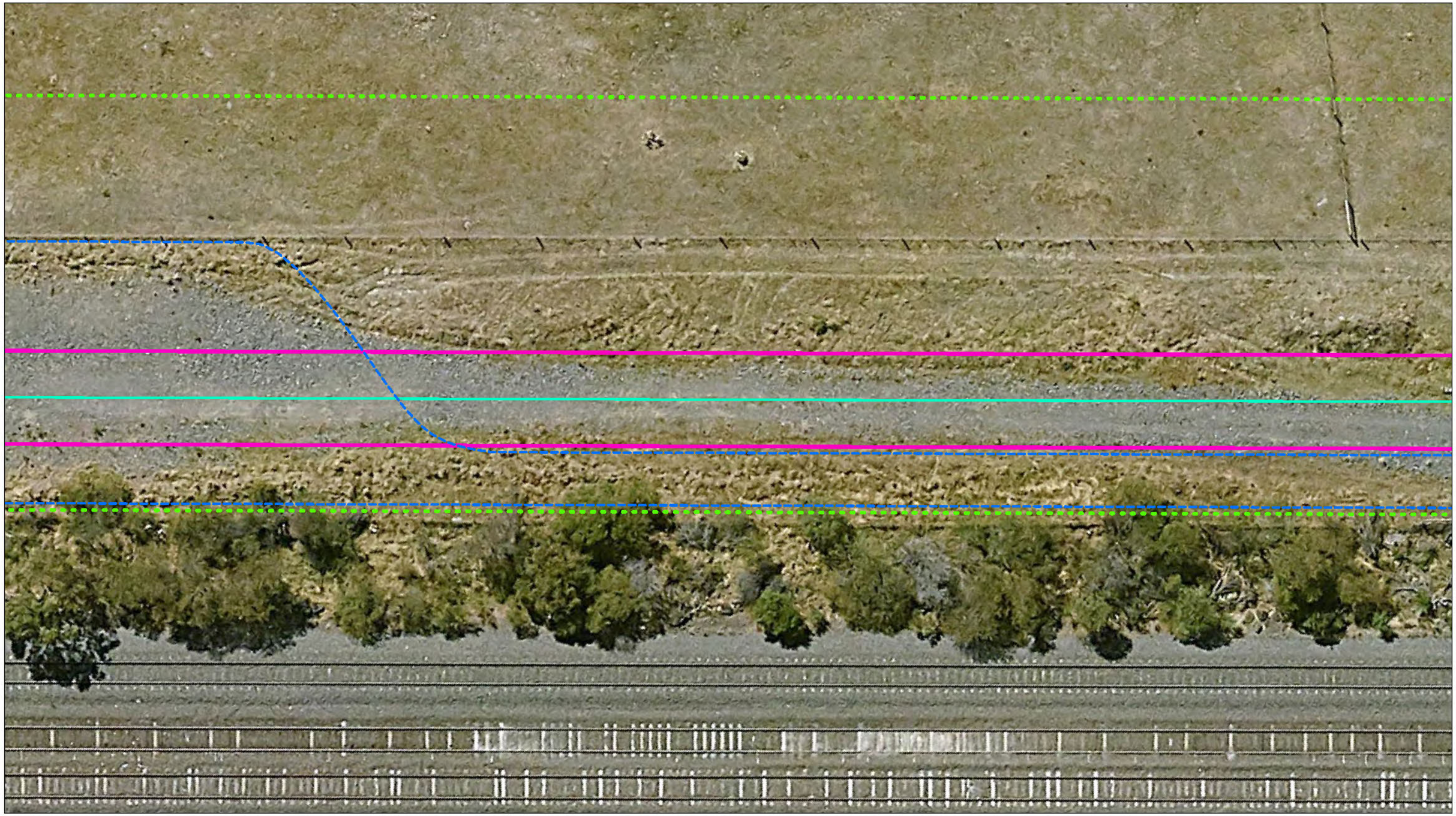

Tree Management & Protection Plan

Aurora to Bald Hill NDW Main
Craigieburn 3064 to Wallan 3756

Map 92 of 111

Project Code:300250055
Drawn By: DS, Checked By: MH
Date: 2025.10.23
Revision: B

Legend

Construction Corridor Alignment
- Construction Boundary
- Temporary Access Corridor
- Proposed Access Track
- Excavation Zone
- Trenchless Shafts and Working Areas
- Indicative Shared User Path

Tree
- Retain (Arboricultural data)
- Retain (Ecology data)
- Retain with supervision (Arboricultural data)
- Retain with supervision (Ecology data)
- Remove (Arboricultural data)
- Remove (Ecology data)
- Absent at time of assessment

Root Zones
- NRZ
- SRZ
- TPZ Fencing

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. MetroMap 2025.

0 2.5 5 7.5 10 Metres
Scale at A3: 1:280



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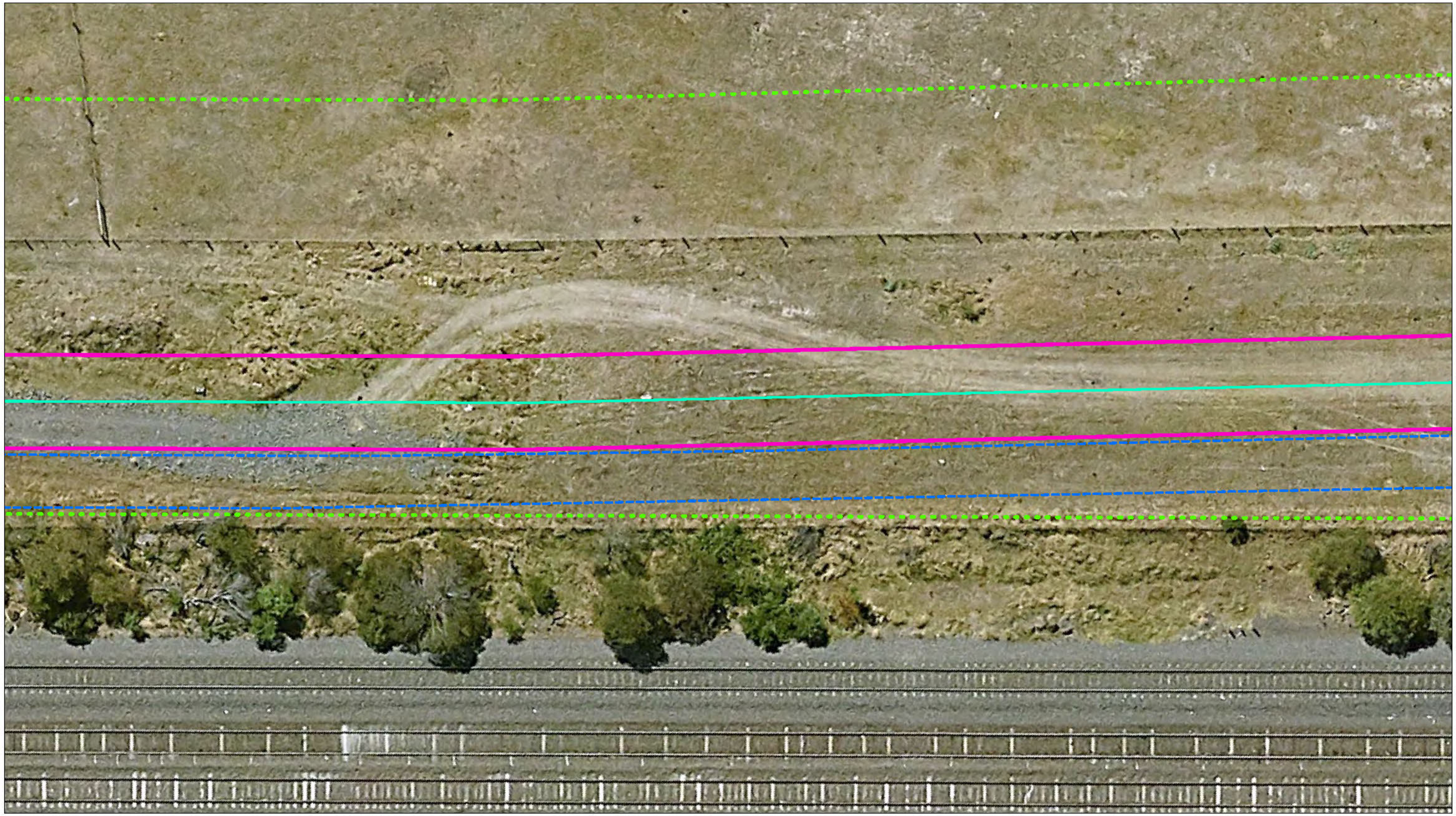


Tree Management & Protection Plan

Aurora to Bald Hill NDW Main
Craigieburn 3064 to Wallan 3756

Map 93 of 111

Project Code:300250055
Drawn By: DS, Checked By: MH
Date: 2025.10.23
Revision B

Legend

Construction Corridor Alignment
- Construction Boundary
- Temporary Access Corridor
- Proposed Access Track
- Excavation Zone
- Spoil Management Area
- Trenchless Shafts and Working Areas
- Indicative Shared User Path

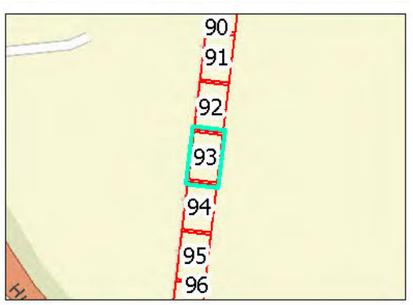
Tree
- Retain (Arboricultural data)
- Retain (Ecology data)
- Retain with supervision (Arboricultural data)
- Retain with supervision (Ecology data)
- Remove (Arboricultural data)
- Remove (Ecology data)
- Absent at time of assessment

Root Zones
- NRZ
- SRZ
- TPZ Fencing

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. MetroMap 2025.

0 2.5 5 7.5 10
Metres
Scale at A3: 1:280



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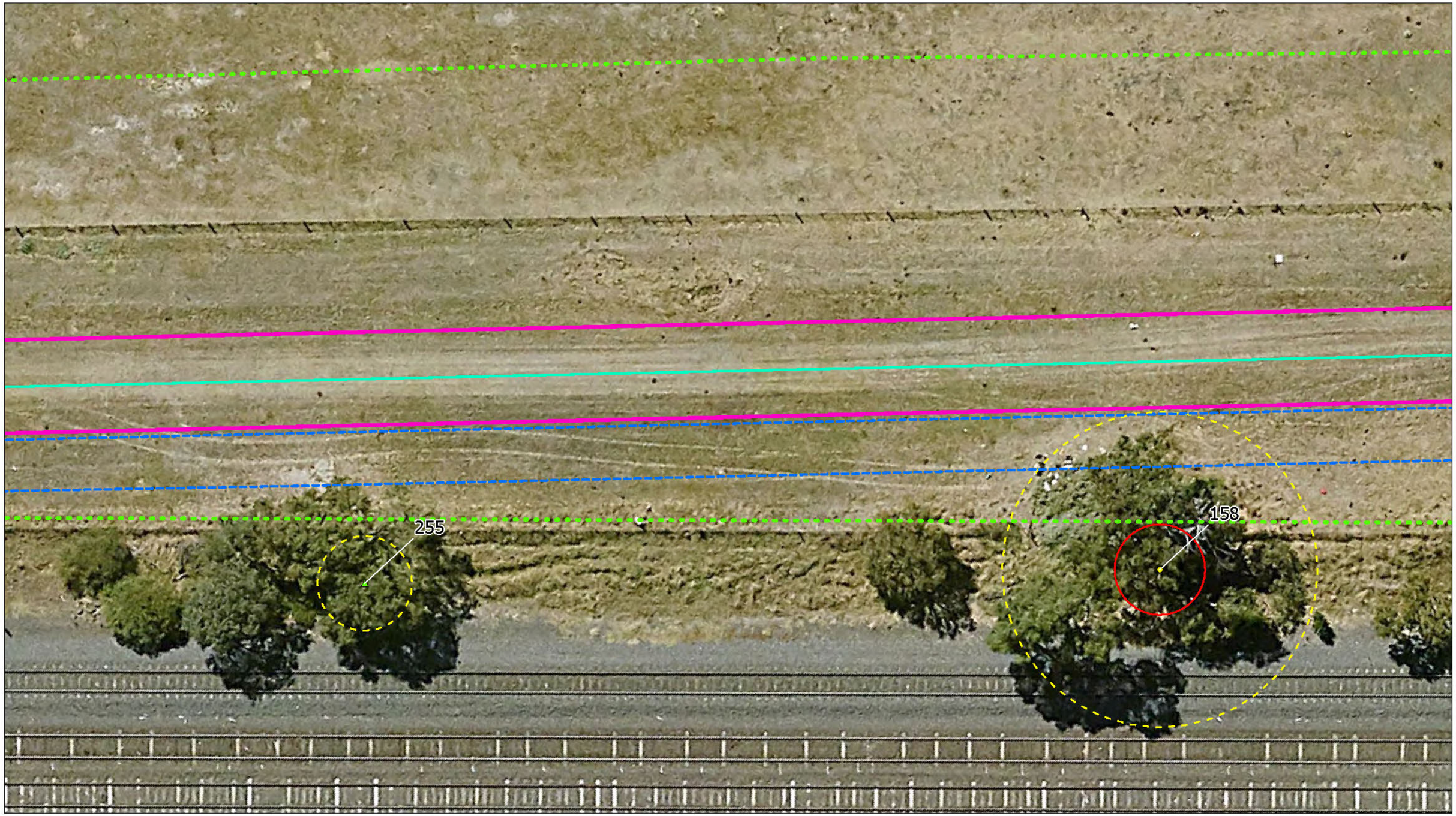

Tree Management & Protection Plan

Aurora to Bald Hill NDW Main
Craigieburn 3064 to Wallan 3756

Map 94 of 111

Project Code:300250055
Drawn By: DS, Checked By: MH
Date: 2025.10.23
Revision: B

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Legend

Construction Corridor Alignment
- Construction Boundary
- Temporary Access Corridor
- Proposed Access Track
- Excavation Zone
- Trenchless Shafts and Working Areas
- Indicative Shared User Path

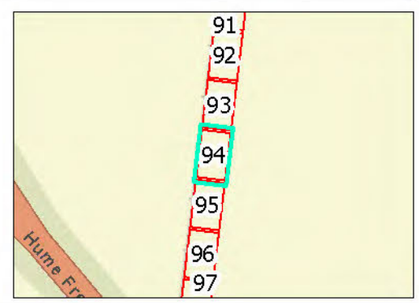
Tree
- Retain (Arboricultural data)
- Retain (Ecology data)
- Retain with supervision (Arboricultural data)
- Retain with supervision (Ecology data)
- Remove (Arboricultural data)
- Remove (Ecology data)
- Absent at time of assessment

Root Zones
- NRZ
- SRZ
- TPZ Fencing

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. MetroMap 2025.

0 2.5 5 7.5 10 Metres
Scale at A3: 1:280



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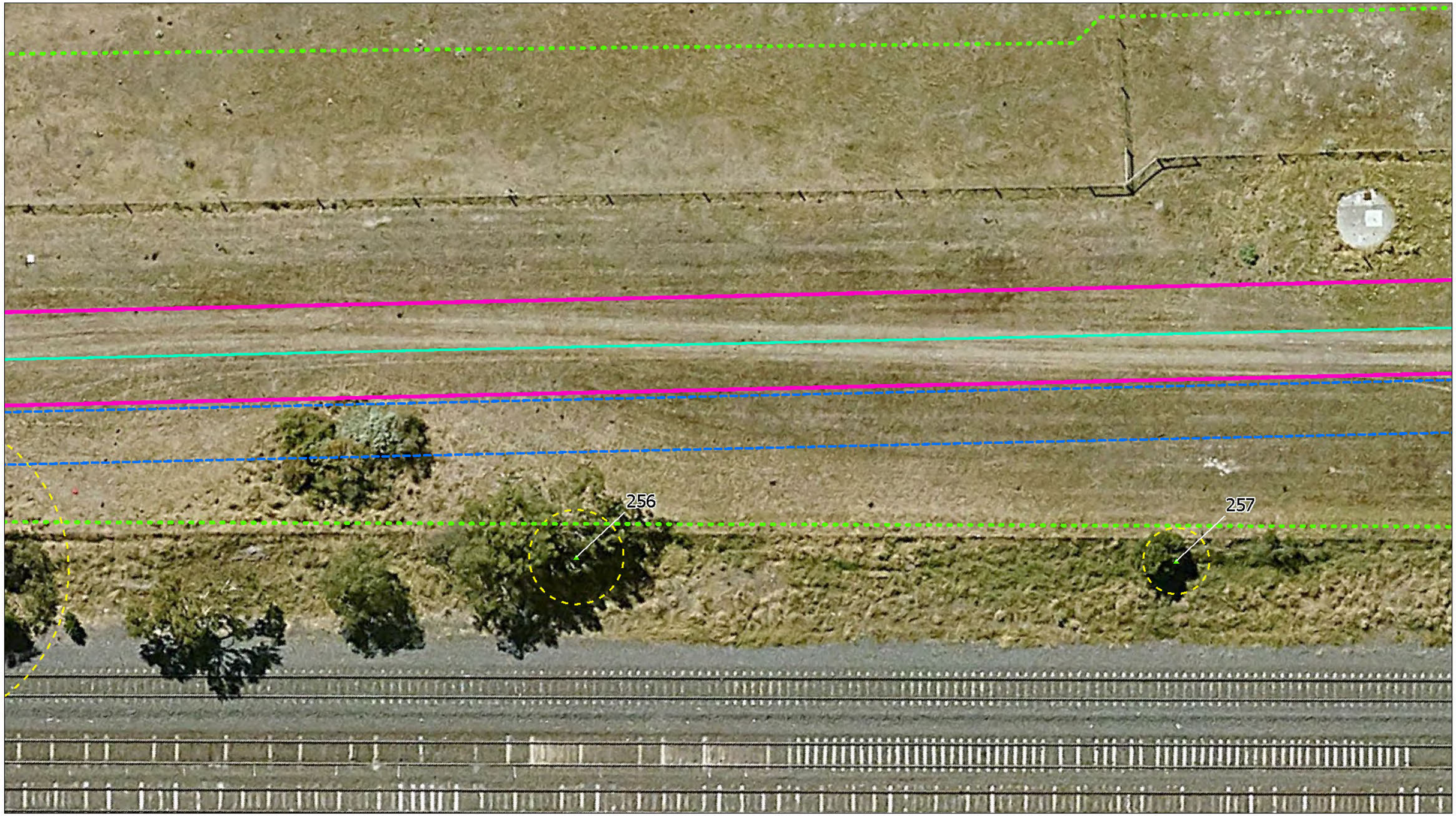

Tree Management & Protection Plan

Aurora to Bald Hill NDW Main
Craigieburn 3064 to Wallan 3756

Map 95 of 111

Project Code:300250055
Drawn By: DS, Checked By: MH
Date: 2025-10-23
Revision: B

Legend

Construction Corridor Alignment
- Construction Boundary
- Temporary Access Corridor
- Proposed Access Track
- Excavation Zone
- Spoil Management Area
- Trenchless Shafts and Working Areas
- Indicative Shared User Path

Tree
- Retain (Arboricultural data)
- Retain (Ecology data)
- Retain with supervision (Arboricultural data)
- Retain with supervision (Ecology data)
- Remove (Arboricultural data)
- Remove (Ecology data)
- Absent at time of assessment

Root Zones
- NRZ
- SRZ
- TPZ Fencing

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. MetroMap 2025.

0 2.5 5 7.5 10 Metres
Scale at A3: 1:280



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Tree Management & Protection Plan

Aurora to Bald Hill NDW Main
Craigieburn 3064 to Wallan 3756

Map 96 of 111

Project Code:300250055
Drawn By: DS, Checked By: MH
Date: 2025.10.23
Revision: B

Legend

Construction Corridor Alignment
- Construction Boundary
- Temporary Access Corridor
- Proposed Access Track
- Excavation Zone
- Spoil Management Area
- Trenchless Shafts and Working Areas
- Indicative Shared User Path

Tree
- Retain (Arboricultural data)
- Retain (Ecology data)
- Retain with supervision (Arboricultural data)
- Retain with supervision (Ecology data)
- Remove (Arboricultural data)
- Remove (Ecology data)
- Absent at time of assessment

Root Zones
- NRZ
- SRZ
- TPZ Fencing

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. MetroMap 2025.

0 2.5 5 7.5 10 Metres
Scale at A3: 1:280



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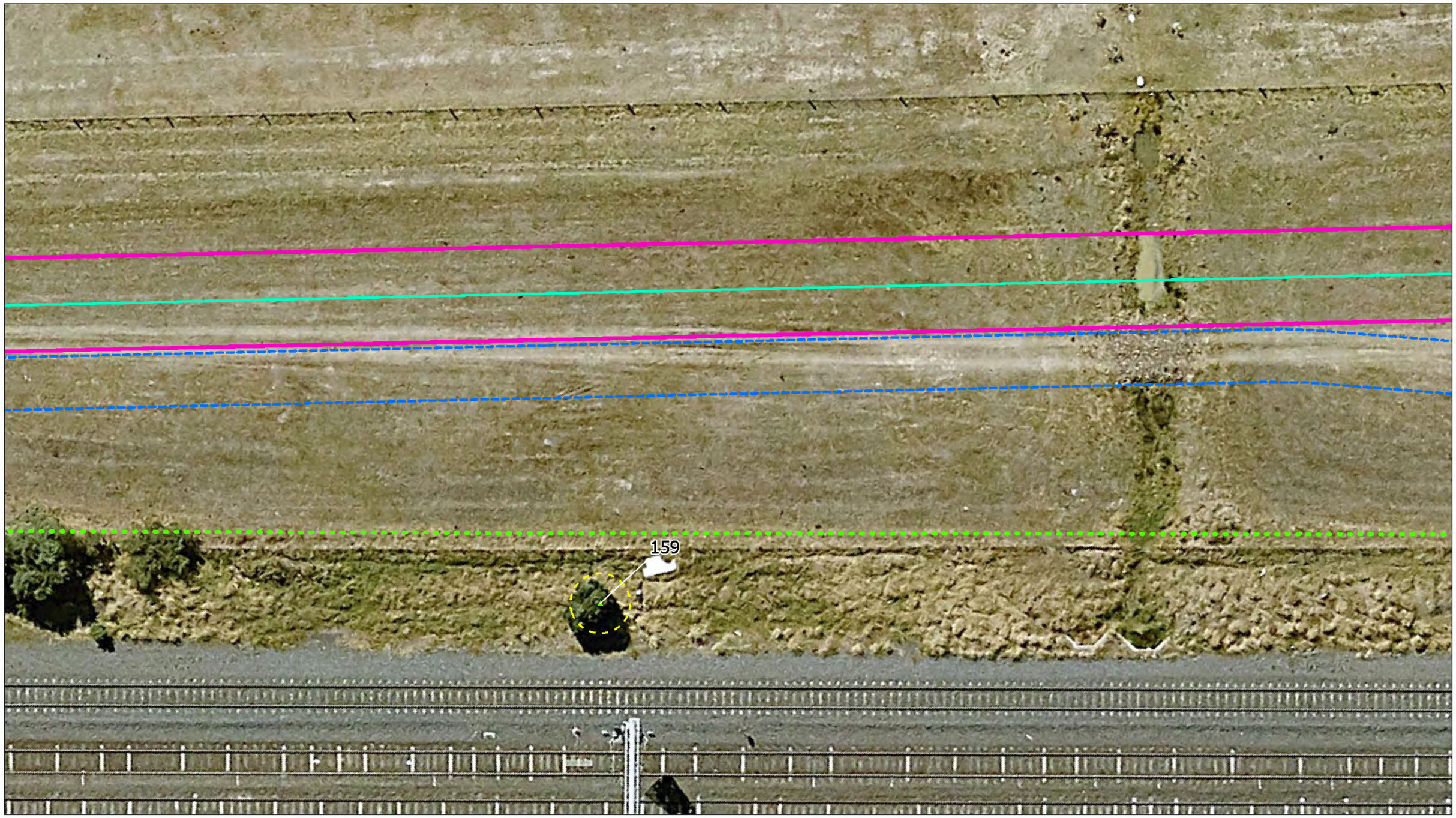


Tree Management & Protection Plan

Aurora to Bald Hill NDW Main
Craigieburn 3064 to Wallan 3756

Map 97 of 111

Project Code:300250055
Drawn By: DS, Checked By: MH
Date: 2025-10-23
Revision: B

Legend

Construction Corridor Alignment
- Construction Boundary
- Temporary Access Corridor
- Proposed Access Track
- Excavation Zone
- Part of Alignment
- Trenchless Shafts and Working Areas
- Indicative Shared User Path

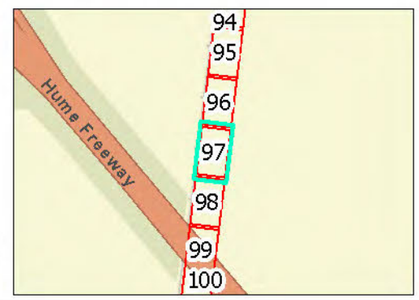
Tree
- Retain (Arboricultural data)
- Retain (Ecology data)
- Retain with supervision (Arboricultural data)
- Retain with supervision (Ecology data)
- Remove (Arboricultural data)
- Remove (Ecology data)
- Absent at time of assessment

Root Zones
- NRZ
- SRZ
- TPZ Fencing

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. MetroMap 2025.

0 2.5 5 7.5 10 Metres
Scale at A3: 1:280



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Tree Management & Protection Plan

Aurora to Bald Hill NDW Main
Craigieburn 3064 to Wallan 3756

Map 98 of 111

Project Code:300250055
Drawn By: DS, Checked By: MH
Date: 2025.10.23
Revision: B

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Legend

Construction Corridor Alignment
- Construction Boundary
- Temporary Access Corridor
- Proposed Access Track
- Excavation Zone
- Trenchless Shafts and Working Areas
- Indicative Shared User Path

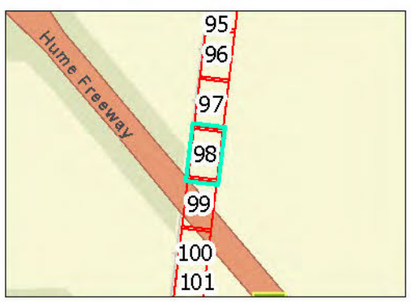
Tree
- Retain (Arboricultural data)
- Retain (Ecology data)
- Retain with supervision (Arboricultural data)
- Retain with supervision (Ecology data)
- Remove (Arboricultural data)
- Remove (Ecology data)
- Absent at time of assessment

Root Zones
- NRZ
- SRZ
- TPZ Fencing

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. MetroMap 2025.

0 2.5 5 7.5 10
Metres
Scale at A3: 1:260



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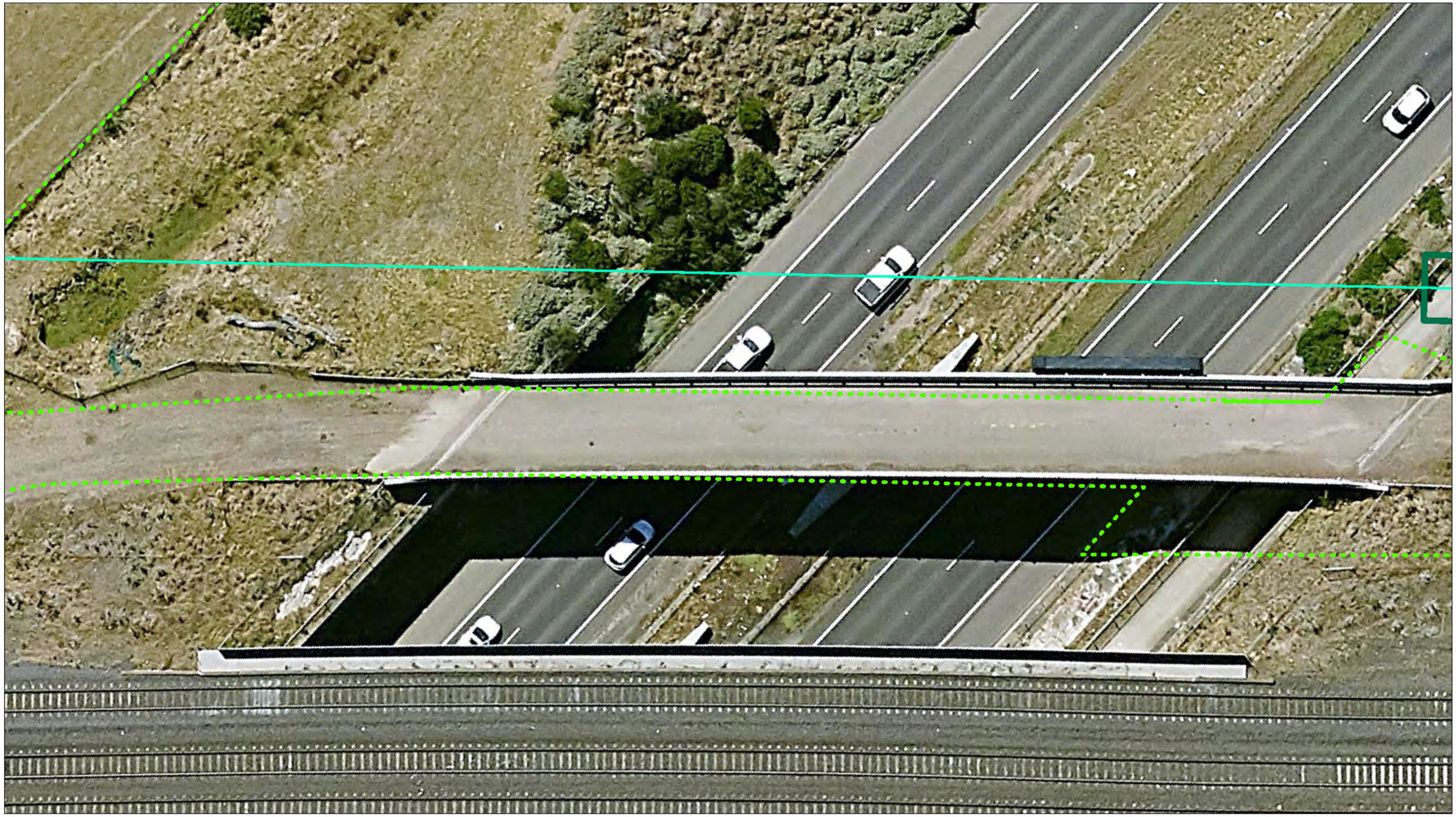


Tree Management & Protection Plan

Aurora to Bald Hill NDW Main
Craigieburn 3064 to Wallan 3756

Map 99 of 111

Project Code:300250055
Drawn By: DS, Checked By: MH
Date: 2025.10.23
Revision: B

Legend

Construction Corridor Alignment
- Construction Boundary
- Temporary Access Corridor
- Proposed Access Track
- Excavation Zone
- Extent of Impact
- Trenchless Shafts and Working Areas
- Indicative Shared User Path

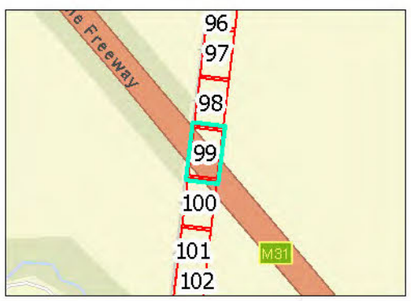
Tree
- Retain (Arboricultural data)
- Retain (Ecology data)
- Retain with supervision (Arboricultural data)
- Retain with supervision (Ecology data)
- Remove (Arboricultural data)
- Remove (Ecology data)
- Absent at time of assessment

Root Zones
- NRZ
- SRZ
- TPZ Fencing

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. MetroMap 2025.

0 2.5 5 7.5 10 Metres
Scale at A3: 1:280



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Tree Management & Protection Plan

Aurora to Bald Hill NDW Main
Craigieburn 3064 to Wallan 3756

Map 100 of 111

Project Code:300250055
Drawn By: DS, Checked By: MH
Date: 2025.10.23
Revision: B

Legend

Construction Corridor Alignment
- Construction Boundary
- Temporary Access Corridor
- Proposed Access Track
- Excavation Zone
- Trenchless Shafts and Working Areas
- Indicative Shared User Path

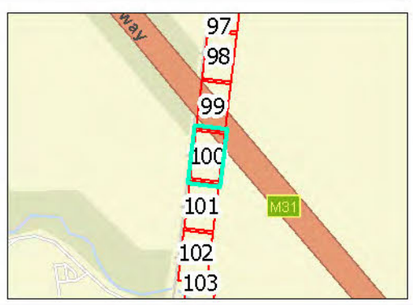
Tree
- Retain (Arboricultural data)
- Retain (Ecology data)
- Retain with supervision (Arboricultural data)
- Retain with supervision (Ecology data)
- Remove (Arboricultural data)
- Remove (Ecology data)
- Absent at time of assessment

Root Zones
- NRZ
- SRZ
- TPZ Fencing

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. MetroMap 2025.

0 2.5 5 7.5 10
Metres
Scale at A3: 1:280



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Tree Management & Protection Plan

Aurora to Bald Hill NDW Main
Craigieburn 3064 to Wallan 3756

Map 101 of 111

Project Code:300250055
Drawn By: DS, Checked By: MH
Date: 2025-10-23
Revision: B

Legend

Construction Corridor Alignment
- Construction Boundary
- Temporary Access Corridor
- Proposed Access Track
- Excavation Zone
- Spoil Placement Area
- Trenchless Shafts and Working Areas
- Indicative Shared User Path

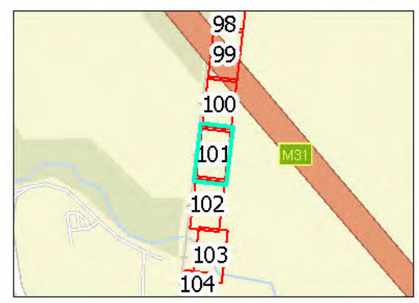
Tree
- Retain (Arboricultural data)
- Retain (Ecology data)
- Retain with supervision (Arboricultural data)
- Retain with supervision (Ecology data)
- Remove (Arboricultural data)
- Remove (Ecology data)
- Absent at time of assessment

Root Zones
- NRZ
- SRZ
- TPZ Fencing

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. MetroMap 2025.

0 2.5 5 7.5 10 Metres
Scale at A3: 1:280



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Tree Management & Protection Plan

Aurora to Bald Hill NDW Main
Craigieburn 3064 to Wallan 3756

Map 102 of 111

Project Code:300250055
Drawn By: DS, Checked By: MH
Date: 2025-10-23
Revision: B

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Legend

Construction Corridor Alignment
- Construction Boundary
- Temporary Access Corridor
- Proposed Access Track
- Excavation Zone
- Trenchless Shafts and Working Areas
- Indicative Shared User Path

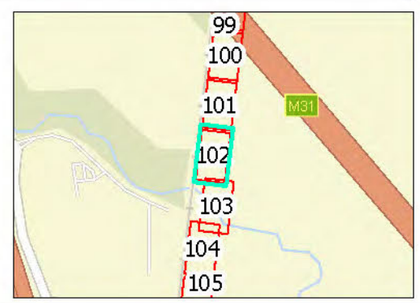
Tree
- Retain (Arboricultural data)
- Retain (Ecology data)
- Retain with supervision (Arboricultural data)
- Retain with supervision (Ecology data)
- Remove (Arboricultural data)
- Remove (Ecology data)
- Absent at time of assessment

Root Zones
- NRZ
- SRZ
- TPZ Fencing

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. MetroMap 2025.

0 2.5 5 7.5 10 Metres
Scale at A3: 1:280



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Tree Management & Protection Plan

Aurora to Bald Hill NDW Main
Craigieburn 3064 to Wallan 3756

Map 103 of 111

Project Code:300250055
Drawn By: DS, Checked By: MH
Date: 2025-10-23
Revision: B

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Legend

Construction Corridor Alignment
- Construction Boundary
- Temporary Access Corridor
- Proposed Access Track
- Excavation Zone
- Extent of Landscape
- Trenchless Shafts and Working Areas
- Indicative Shared User Path

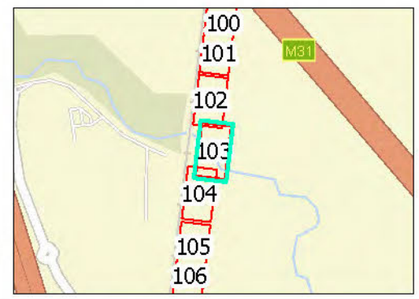
Tree
- Retain (Arboricultural data)
- Retain (Ecology data)
- Retain with supervision (Arboricultural data)
- Retain with supervision (Ecology data)
- Remove (Arboricultural data)
- Remove (Ecology data)
- Absent at time of assessment

Root Zones
- NRZ
- SRZ
- TPZ Fencing

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. MetroMap 2025.

0 2.5 5 7.5 10 Metres
Scale at A3: 1:280



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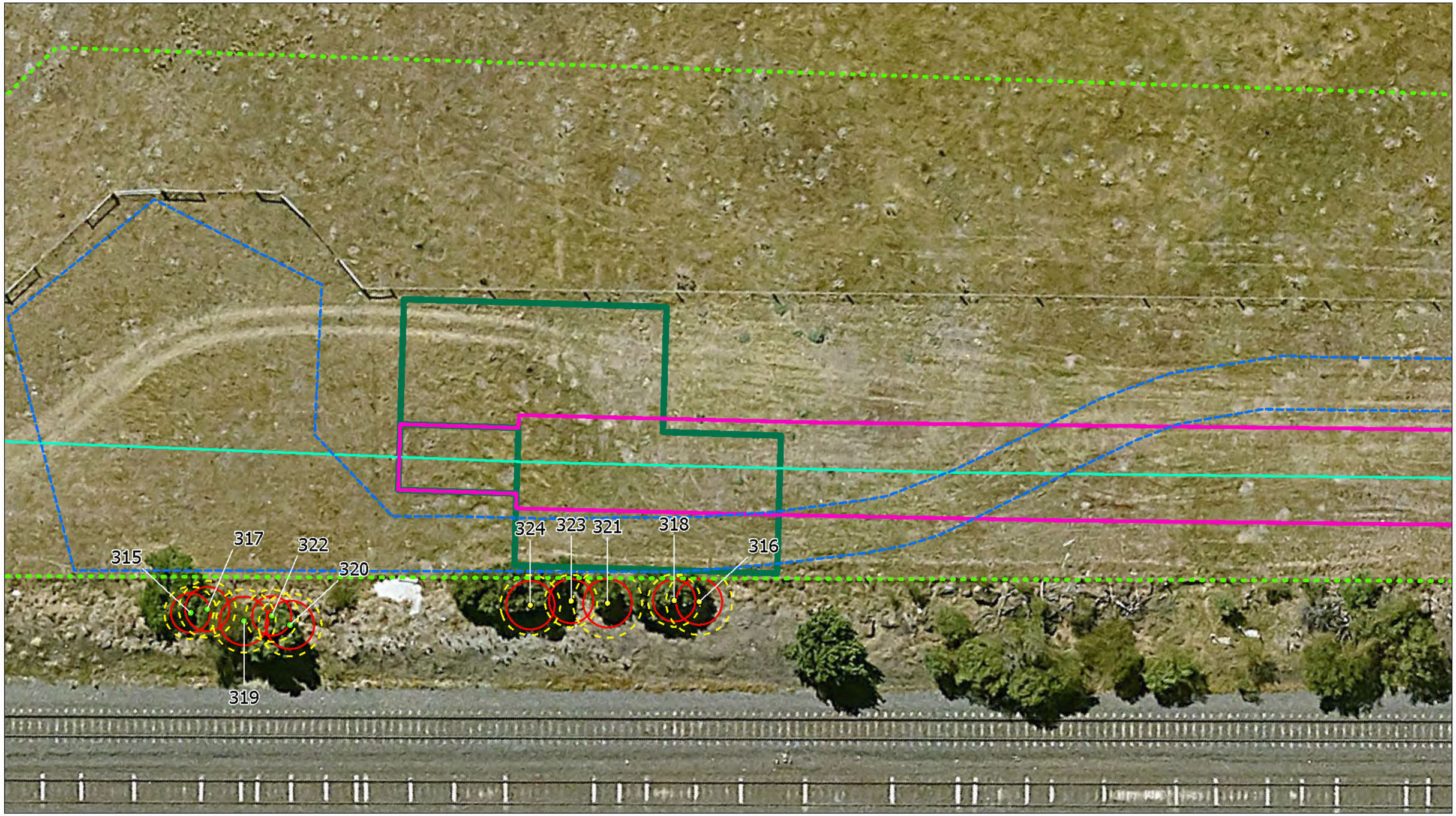


Tree Management & Protection Plan

Aurora to Bald Hill NDW Main
Craigieburn 3064 to Wallan 3756

Map 104 of 111

Project Code:300250055
Drawn By: DS, Checked By: MH
Date: 2025-10-31
Revision: B

Legend

Construction Corridor Alignment
- Construction Boundary
- Temporary Access Corridor
- Proposed Access Track
- Excavation Zone
- Trenchless Shafts and Working Areas
- Indicative Shared User Path

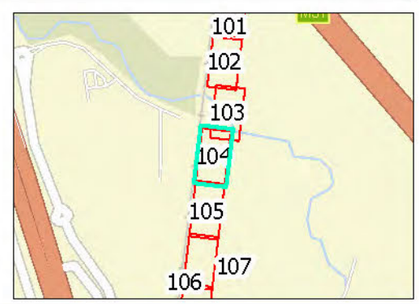
Tree
- Retain (Arboricultural data)
- Retain (Ecology data)
- Retain with supervision (Arboricultural data)
- Retain with supervision (Ecology data)
- Remove (Arboricultural data)
- Remove (Ecology data)
- Absent at time of assessment

Root Zones
- NRZ
- SRZ
- TPZ Fencing

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. MetroMap 2025.

0 2.5 5 7.5 10 Metres
Scale at A3: 1:280



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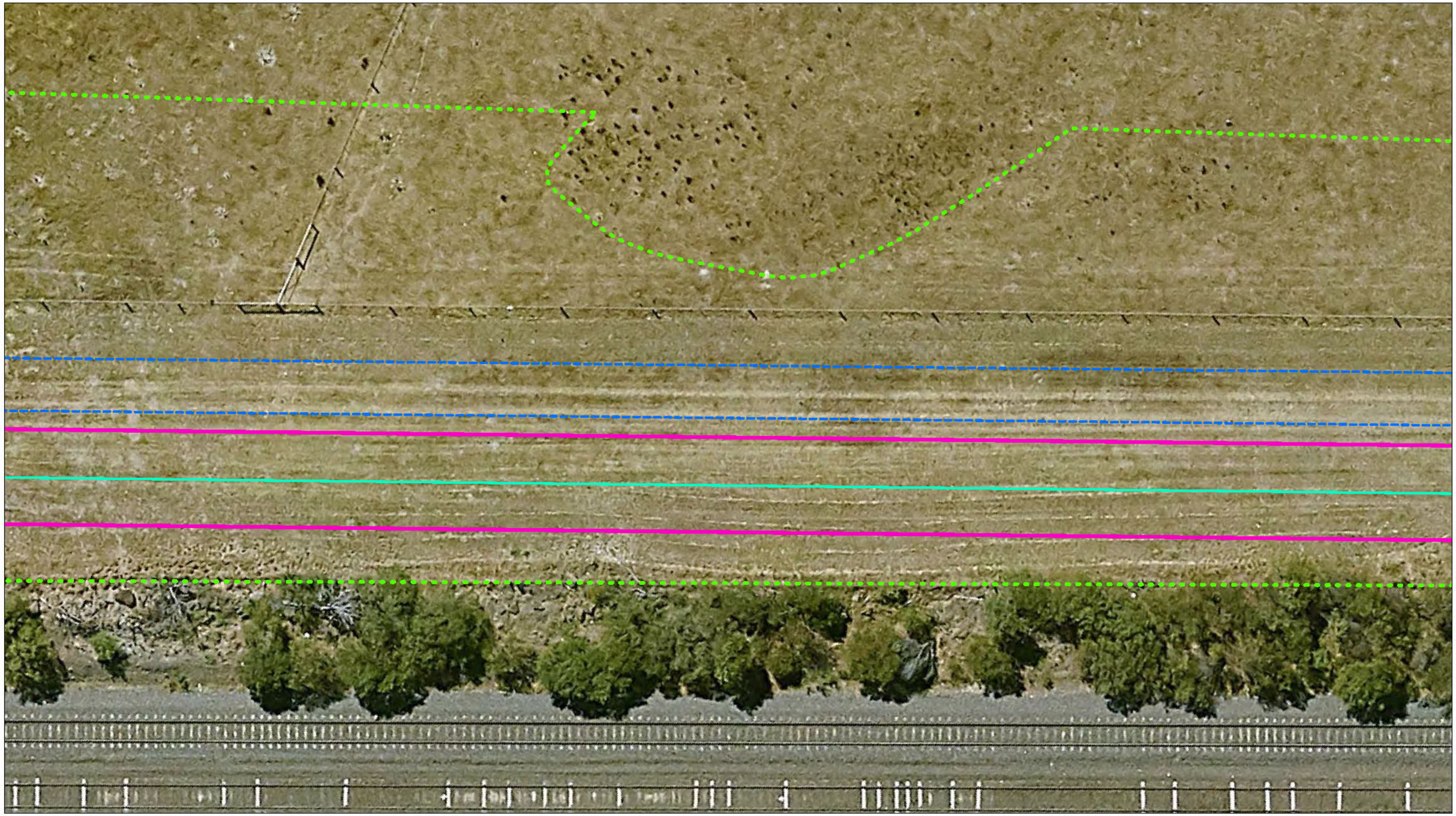

Tree Management & Protection Plan

Aurora to Bald Hill NDW Main
Craigieburn 3064 to Wallan 3756

Map 105 of 111

Project Code:300250055
Drawn By: DS, Checked By: MH
Date: 2025.10.23
Revision: B

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Legend

Construction Corridor Alignment
- Construction Boundary
- Temporary Access Corridor
- Proposed Access Track
- Excavation Zone
- Trenchless Shafts and Working Areas
- Indicative Shared User Path

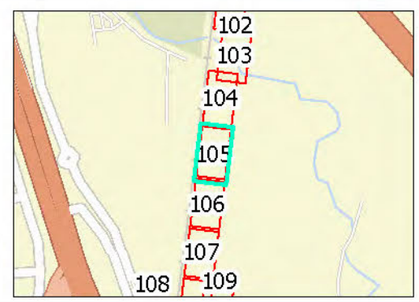
Tree
- Retain (Arboricultural data)
- Retain (Ecology data)
- Retain with supervision (Arboricultural data)
- Retain with supervision (Ecology data)
- Remove (Arboricultural data)
- Remove (Ecology data)
- Absent at time of assessment

Root Zones
- NRZ
- SRZ
- TPZ Fencing

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. MetroMap 2025.

0 2.5 5 7.5 10 Metres
Scale at A3: 1:280



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Tree Management & Protection Plan

Aurora to Bald Hill NDW Main
Craigieburn 3064 to Wallan 3756

Map 106 of 111

Project Code:300250055
Drawn By: DS, Checked By: MH
Date: 2025.10.23
Revision: B

Legend

Construction Corridor Alignment
- Construction Boundary
- Temporary Access Corridor
- Proposed Access Track
- Excavation Zone
- Extent of Impact
- Trenchless Shafts and Working Areas
- Indicative Shared User Path

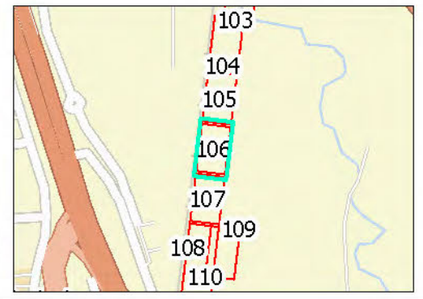
Tree
- Retain (Arboricultural data)
- Retain (Ecology data)
- Retain with supervision (Arboricultural data)
- Retain with supervision (Ecology data)
- Remove (Arboricultural data)
- Remove (Ecology data)
- Absent at time of assessment

Root Zones
- NRZ
- SRZ
- TPZ Fencing

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. MetroMap 2025.

0 2.5 5 7.5 10 Metres
Scale at A3: 1:280



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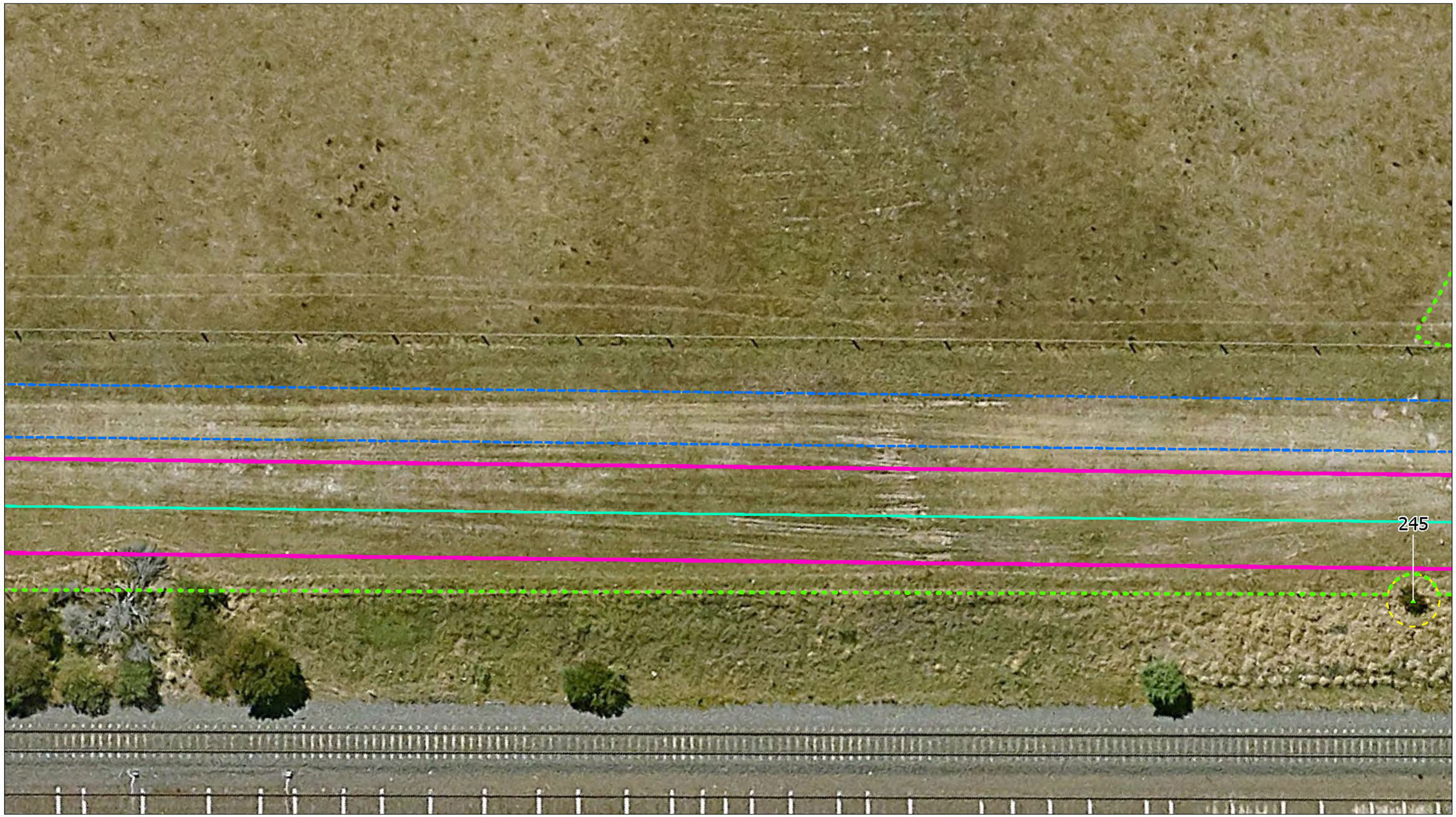


Tree Management & Protection Plan

Aurora to Bald Hill NDW Main
Craigieburn 3064 to Wallan 3756

Map 107 of 111

Project Code:300250055
Drawn By: DS, Checked By: MH
Date: 2025-10-23
Revision: B

Legend

Construction Corridor Alignment
- Construction Boundary
- Temporary Access Corridor
- Proposed Access Track
- Excavation Zone
- Trenchless Shafts and Working Areas
- Indicative Shared User Path

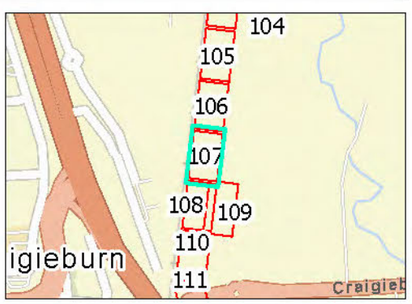
Tree
- Retain (Arboricultural data)
- Retain (Ecology data)
- Retain with supervision (Arboricultural data)
- Retain with supervision (Ecology data)
- Remove (Arboricultural data)
- Remove (Ecology data)
- Absent at time of assessment

Root Zones
- NRZ
- SRZ
- TPZ Fencing

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. MetroMap 2025.

0 2.5 5 7.5 10 Metres
Scale at A3: 1:280



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Tree Management & Protection Plan

Aurora to Bald Hill NDW Main
Craigieburn 3064 to Wallan 3756

Map 108 of 111

Project Code:300250055
Drawn By: DS, Checked By: MH
Date: 2025.10.23
Revision B

Legend

Construction Corridor Alignment
- Construction Boundary
- Temporary Access Corridor
- Proposed Access Track
- Excavation Zone
- Trenchless Shafts and Working Areas
- Indicative Shared User Path

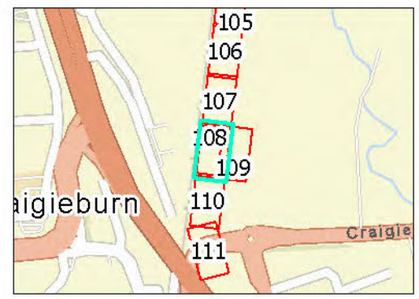
Tree
- Retain (Arboricultural data)
- Retain (Ecology data)
- Retain with supervision (Arboricultural data)
- Retain with supervision (Ecology data)
- Remove (Arboricultural data)
- Remove (Ecology data)
- Absent at time of assessment

Root Zones
- NRZ
- SRZ
- TPZ Fencing

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. MetroMap 2025.

0 2.5 5 7.5 10 Metres
Scale at A3: 1:280



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Tree Management & Protection Plan

Aurora to Bald Hill NDW Main
Craigieburn 3064 to Wallan 3756

Map 109 of 111

Project Code:300250055
Drawn By: DS, Checked By: MH
Date: 2025.10.23
Revision: B

Legend

Construction Corridor Alignment
- Construction Boundary
- Temporary Access Corridor
- Proposed Access Track
- Excavation Zone
- Stockpile/Laydown Area
- Trenchless Shafts and Working Areas
- Indicative Shared User Path

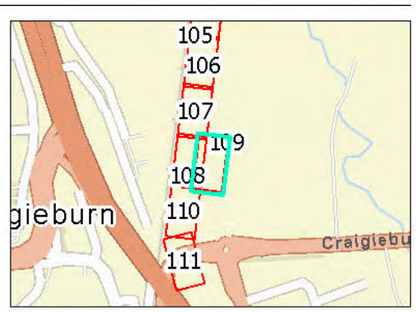
Tree
- Retain (Arboricultural data)
- Retain (Ecology data)
- Retain with supervision (Arboricultural data)
- Retain with supervision (Ecology data)
- Remove (Arboricultural data)
- Remove (Ecology data)
- Absent at time of assessment

Root Zones
- NRZ
- SRZ
- TPZ Fencing

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. MetroMap 2025.

0 2.5 5 7.5 10 Metres
Scale at A3: 1:280



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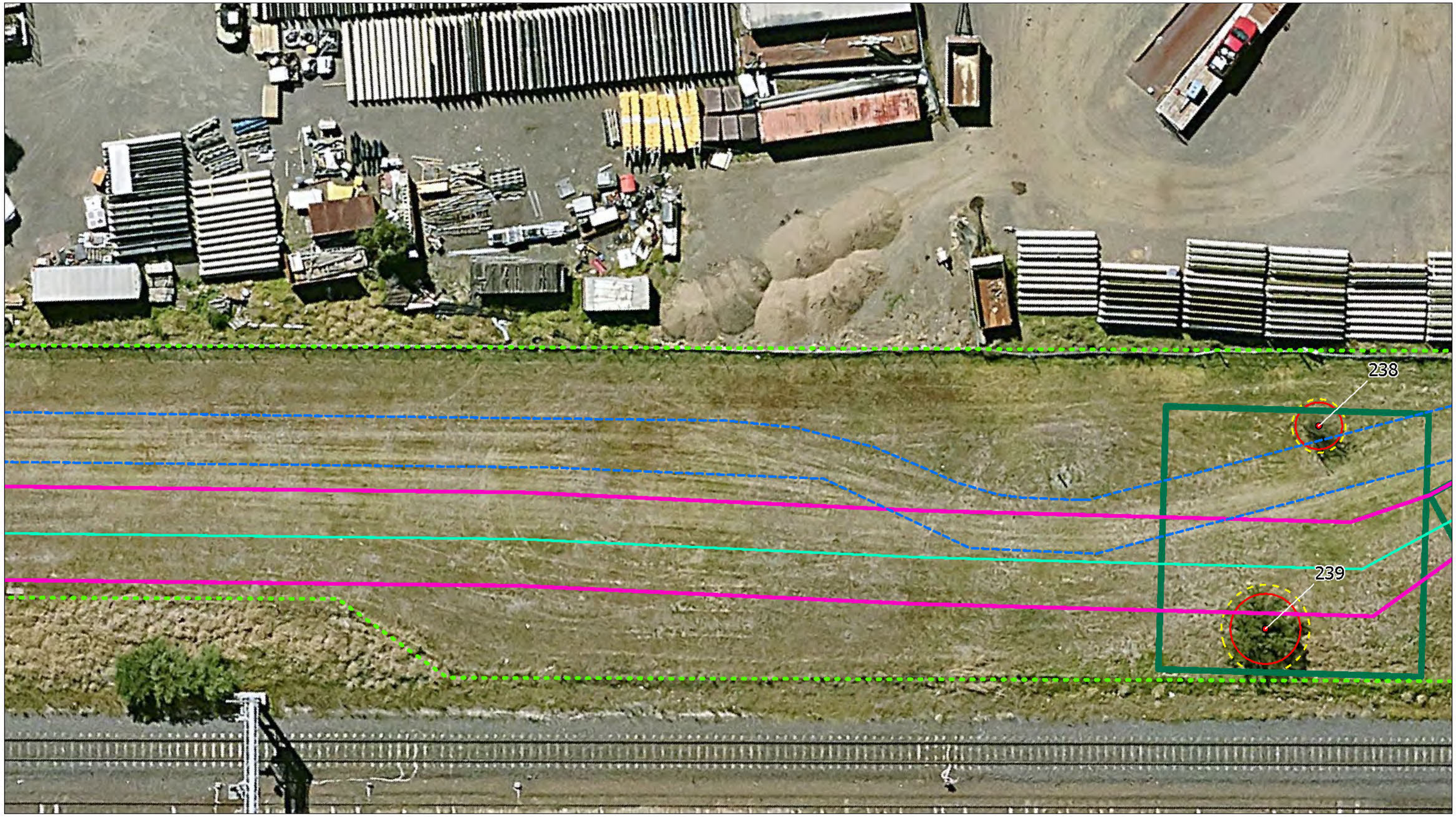


Tree Management & Protection Plan

Aurora to Bald Hill NDW Main
Craigieburn 3064 to Wallan 3756

Map 110 of 111

Project Code:300250055
Drawn By: DS, Checked By: MH
Date: 2025.10.23
Revision B

Legend

Construction Corridor Alignment
- Construction Boundary
- Temporary Access Corridor
- Proposed Access Track
- Excavation Zone
- Spoil Placement Area
- Trenchless Shafts and Working Areas
- Indicative Shared User Path

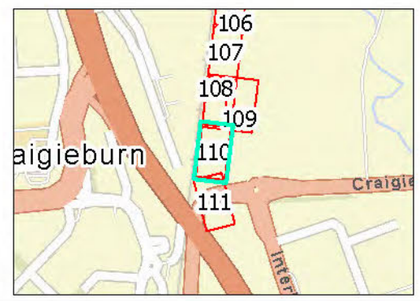
Tree
- Retain (Arboricultural data)
- Retain (Ecology data)
- Retain with supervision (Arboricultural data)
- Retain with supervision (Ecology data)
- Remove (Arboricultural data)
- Remove (Ecology data)
- Absent at time of assessment

Root Zones
- NRZ
- SRZ
- TPZ Fencing

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. MetroMap 2025.

0 2.5 5 7.5 10 Metres
Scale at A3: 1:280



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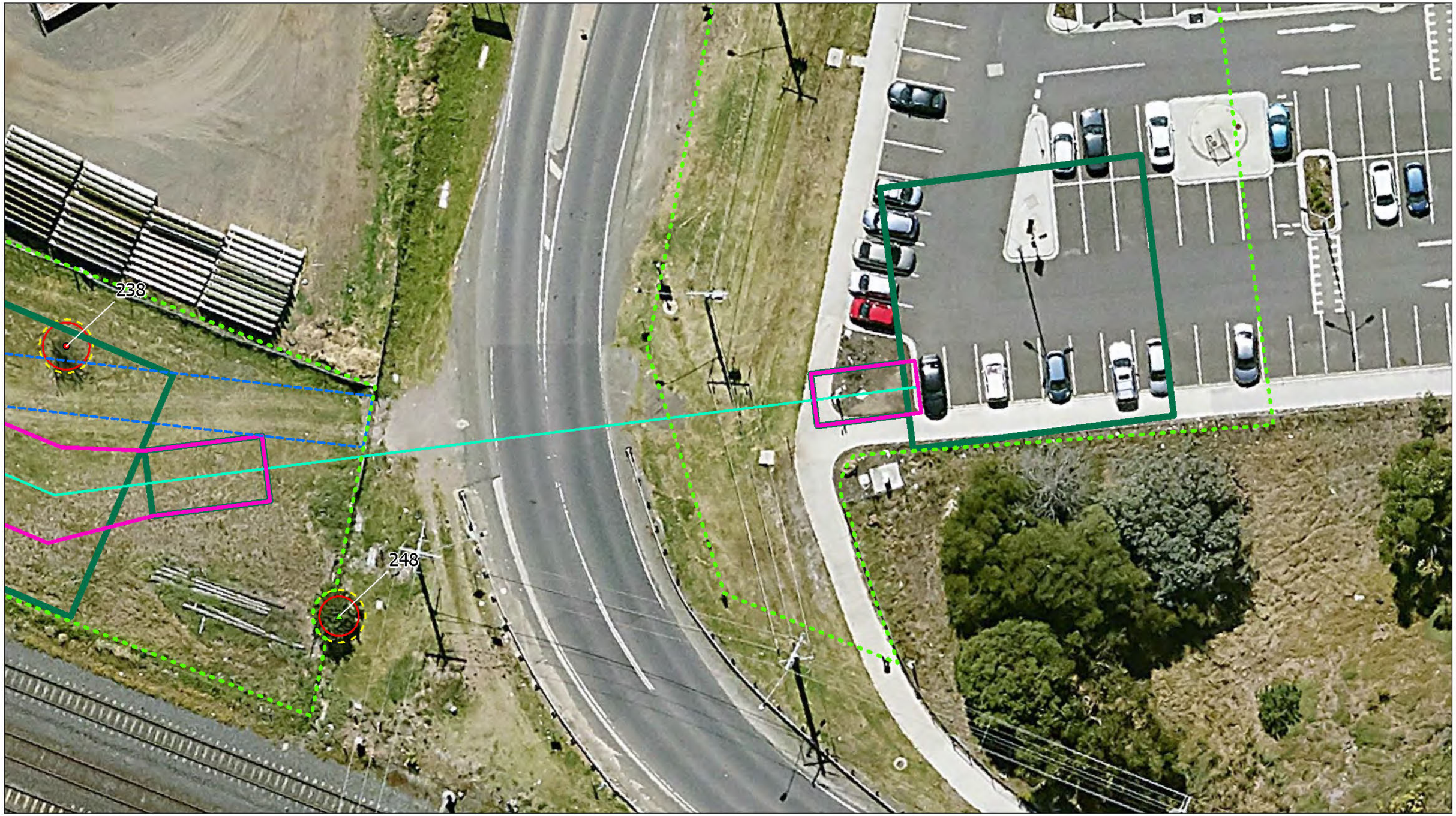

Tree Management & Protection Plan

Aurora to Bald Hill NDW Main
Craigieburn 3064 to Wallan 3756

Map 111 of 111

Project Code:300250055
Drawn By: DS, Checked By: MH
Date:2025-10-23
Revision: B

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Legend

Construction Corridor Alignment
- Construction Boundary
- Temporary Access Corridor
- Proposed Access Track
- Excavation Zone
- Trenchless Shafts and Working Areas
- Indicative Shared User Path

Tree
- Retain (Arboricultural data)
- Retain (Ecology data)
- Retain with supervision (Arboricultural data)
- Retain with supervision (Ecology data)
- Remove (Arboricultural data)
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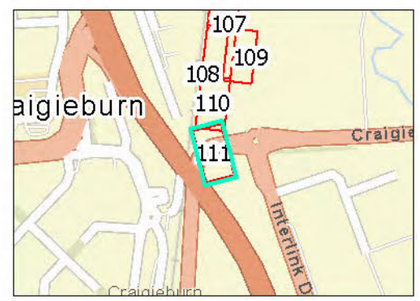
- Absent at time of assessment

Root Zones
- NRZ
- SRZ
- TPZ Fencing

Notes:
1. Map displayed in GDA2020 MGA Zone 55

References:
1. MetroMap 2025.

0 2.5 5 7.5 10 Metres
Scale at A3: 1:280



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Appendix B: Tree Impact Table

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ID	DBH	DAB	NRZ	SRZ	NRZ Encroachment	SRZ Incursion	Status
001	0.21	0	2.52	0.00	None	None	Retain
002	0.19	0	2.28	0.00	None	None	Retain
003	0.15	0	2.00	0.00	None	None	Retain
004	0.22	0.26	2.64	1.88	None	None	Retain
005	0.12	0	2.00	0.00	None	None	Retain
006	0.15	0.1	2.00	1.50	None	None	Retain
007	0.15	0.15	2.00	1.68	None	None	Retain
008	0.36	0.4	4.32	2.25	None	None	Retain
010	0.31	0	3.72	0.00	None	None	Retain
011	0.12	0	2.00	0.00	None	None	Retain
012	0.14	0	2.00	0.00	None	None	Retain
013	0.23	0	2.76	0.00	None	None	Retain
014	0.11	0	2.00	0.00	None	None	Retain
015	0.24	0	2.88	0.00	None	None	Retain
016	0.18	0	2.16	0.00	None	None	Retain
017	0.1	0	2.00	0.00	None	None	Retain
018	0.16	0	2.00	0.00	None	None	Retain
019	0.32	0	3.84	0.00	None	None	Retain
020	0.11	0	2.00	0.00	None	None	Retain
021	0.18	0.23	2.16	1.79	Major	Yes	Remove
022	0.15	0.2	2.00	1.68	None	None	Retain
023	0.17	0	2.04	0.00	None	None	Retain
024	0.2	0.15	2.40	0.00	None	None	Retain
025	0.12	0.15	2.00	1.50	None	None	Retain
026	0.1	0.13	2.00	1.50	None	None	Retain
027	0.15	0.18	2.00	1.61	None	None	Retain
028	0.11	0.16	2.00	1.53	Major	Yes	Remove
029	0.15	0.2	2.00	1.68	None	None	Retain
030	0.2	0.3	2.40	2.00	None	None	Retain
031	0.21	0.26	2.52	1.88	Major	Yes	Remove
032	0.11	0.13	2.00	1.50	Major	Yes	Remove
033	0.23	0.32	2.76	2.05	Major	Yes	Remove - practical retention possible
034	0.05	0.12	2.00	1.50	None	None	Retain
035	0.13	0.19	2.00	1.65	Major	Yes	Remove
036	0.16	0.22	2.00	1.75	None	None	Retain
037	0.22	0.3	2.64	2.00	Major	Yes	Remove
038	0.19	0.23	2.28	1.79	Major	Yes	Remove
039	0.18	0.24	2.16	1.82	None	None	Retain
040	0.17	0.2	2.04	0.00	None	None	Retain
041	0.15	0.2	2.00	1.68	Major	Yes	Remove
042	0.24	0	2.88	0.00	None	None	Retain
043	0.16	0	2.00	0.00	None	None	Retain
044	0.24	0	2.88	0.00	None	None	Retain
045	0.21	0	2.52	0.00	None	None	Retain
046	0.15	0	2.00	0.00	None	None	Retain

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ID	DBH	DAB	NRZ	SRZ	NRZ Encroachment	SRZ Incursion	Status
047	0.16	0	2.00	0.00	None	None	Retain
048	0.21	0	2.52	0.00	None	None	Retain
049	0.43	0	5.16	0.00	None	None	Retain
050	0.2	0.15	2.40	0.00	None	None	Retain
051	0.53	0	6.36	0.00	None	None	Retain
052	0.2	0.15	2.00	0.00	None	None	Retain
053	0.23	0.3	2.76	2.00	Major	Yes	Remove
054	0.19	0.24	2.28	1.82	Major	Yes	Remove
055	0.21	0.25	2.52	1.85	Major	Yes	Remove
056	0.2	0.24	2.40	1.82	Major	Yes	Remove
057	0.2	0.25	2.40	1.85	Major	Yes	Remove
058	0.22	0.26	2.64	1.88	Major	Yes	Remove
059	0.24	0.3	2.88	2.00	Major	Yes	Remove
060	0.38	0.5	4.56	2.47	Major	Yes	Remove
061	0.08	0.08	2.00	0.00	None	None	Retain
062	0.15	0.1	2.00	0.00	None	None	Retain
063	0.14	0.1	2.00	0.00	None	None	Retain
064	0.22	0.35	2.64	2.13	Major	Yes	Remove
065	0.79	0	9.48	0.00	None	None	Retain
066	0.48	0	5.76	0.00	None	None	Retain
067	0.22	0	2.64	0.00	None	None	Retain
068	0.21	0	2.52	0.00	None	None	Retain
069	0.18	0	2.16	0.00	None	None	Retain
070	0.12	0	2.00	0.00	None	None	Retain
071	0.1	0	2.00	0.00	None	None	Retain
072	0.09	0	2.00	0.00	None	None	Retain
073	0.15	0	2.00	0.00	None	None	Retain
074	0.15	0	2.00	0.00	None	None	Retain
075	0.15	0	2.00	0.00	None	None	Retain
076	0.34	0	4.08	0.00	None	None	Retain
077	0.18	0	2.16	0.00	None	None	Retain
078	0.12	0	2.00	0.00	None	None	Retain
079	0.15	0	2.00	0.00	None	None	Retain
080	0.12	0	2.00	0.00	None	None	Retain
081	0.36	0	4.32	0.00	None	None	Retain
082	0.09	0	2.00	0.00	None	None	Retain
083	0.12	0	2.00	0.00	None	None	Retain
084	0.2	0	2.40	0.00	None	None	Retain
085	0.31	0	3.72	0.00	None	None	Retain
086	0.15	0.1	2.00	0.00	None	None	Retain
087	0.27	0.31	3.24	2.02	Major	Yes	Remove
088	0.19	0	2.28	0.00	None	None	Retain
089	0.17	0.23	2.04	1.79	Major	Yes	Remove
090	0.21	0	2.52	0.00	None	None	Retain
091	0.17	0.22	2.04	1.75	Minor	No	Retain with supervision
092	0.19	0	2.28	0.00	None	None	Retain

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ID	DBH	DAB	NRZ	SRZ	NRZ Encroachment	SRZ Incursion	Status
093	0.28	0.34	3.36	2.10	None	None	Retain
094	0.71	0	8.52	0.00	None	None	Retain
095	0.31	0	3.72	0.00	None	None	Retain
096	1.35	0	15.00	0.00	None	None	Retain
097	0.24	0	2.88	0.00	None	None	Retain
098	0.85	0	10.20	0.00	None	None	Retain
099	0.26	0	3.12	0.00	None	None	Retain
100	0.17	0	2.04	0.00	None	None	Retain
101	1.23	1.31	14.76	3.71	Minor	No	Retain with supervision
102	1.24	0	14.88	0.00	None	None	Retain
103	1.06	0	12.72	0.00	NA	NA	Absent at time of assessment
104	1.59	1.37	15.00	3.78	Minor	No	Retain with supervision
105	0.92	0.92	11.04	3.20	None	None	Retain
106	0.82	0.87	9.84	3.12	None	None	Retain
107	0.92	1.04	11.04	3.36	Minor	No	Retain with supervision
108	0.3	0.39	3.60	2.23	Major	Yes	Remove
109	0.32	0	3.84	0.00	Minor	No	Retain with supervision
110	1.64	1.8	15.00	4.24	Minor	No	Retain with supervision
111	0.76	1.02	9.12	3.34	Minor	No	Retain with supervision
112	0.39	0	4.68	0.00	None	None	Retain
113	0.39	0	4.68	0.00	None	None	Retain
114	0.26	0	3.12	0.00	None	None	Retain
115	0.42	0	5.04	0.00	None	None	Retain
116	0.55	0	6.60	0.00	None	None	Retain
117	0.2	0	2.40	0.00	None	None	Retain
118	0.26	0	3.12	0.00	None	None	Retain
119	0.3	0	3.60	0.00	None	None	Retain
120	0.48	0	5.76	0.00	None	None	Retain
121	0.43	0	5.16	0.00	None	None	Retain
122	0.28	0.44	3.36	2.34	None	None	Retain
123	0.34	0.48	4.08	2.43	None	None	Retain
124	0.36	0.45	4.32	2.37	None	None	Retain
125	0.48	0.6	5.76	2.67	None	None	Retain
126	0.91	0	10.92	0.00	None	None	Retain
127	0.68	0	8.16	0.00	None	None	Retain
128	0.76	0	9.12	0.00	None	None	Retain
129	0.61	0	7.32	0.00	None	None	Retain
130	1.24	0	14.88	0.00	None	None	Retain
131	0.92	0	11.04	0.00	None	None	Retain
132	0.53	0	6.36	0.00	None	None	Retain
133	0.92	0	11.04	0.00	None	None	Retain
134	1	0	12.00	0.00	None	None	Retain
135	0.51	0	6.12	0.00	None	None	Retain
136	0.18	0.23	2.16	1.79	None	None	Retain
137	1.4	1.5	15.00	3.92	Major	Yes	Remove

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ID	DBH	DAB	NRZ	SRZ	NRZ Encroachment	SRZ Incursion	Status
138	0.2	0	2.40	0.00	None	None	Retain
139	0.18	0	2.16	0.00	None	None	Retain
140	0.34	0	4.08	0.00	None	None	Retain
141	0.21	0	2.52	0.00	None	None	Retain
142	0.39	0	4.68	0.00	None	None	Retain
143	0	0	2.00	0.00	NA	NA	Absent at time of assessment
144	0.45	0	5.40	0.00	NA	NA	Absent at time of assessment
145	0.36	0	4.32	0.00	None	None	Retain
146	0.12	0	2.00	0.00	None	None	Retain
147	0.31	0	3.72	0.00	None	None	Retain
148	0.28	0	3.36	0.00	None	None	Retain
149	0.05	0	2.00	0.00	None	None	Retain
150	0.18	0	2.16	0.00	None	None	Retain
151	0.26	0	3.12	0.00	None	None	Retain
152	0.24	0	2.88	0.00	None	None	Retain
153	0.19	0	2.28	0.00	None	None	Retain
154	0.22	0	2.64	0.00	None	None	Retain
155	0.28	0	3.36	0.00	None	None	Retain
156	0.13	0	2.00	0.00	None	None	Retain
157	0.21	0	2.52	0.00	None	None	Retain
158	1	1.1	12.00	3.44	Minor	No	Retain with supervision
159	0.19	0.24	2.28	0.00	None	None	Retain
160	0.12	0.17	2.00	0.00	None	None	Retain
161	0.17	0.22	2.04	0.00	None	None	Retain
162	0.1	0.15	2.00	0.00	None	None	Retain
163	0.4	0.35	4.80	0.00	None	None	Retain
164	0.23	0.28	2.76	0.00	Major	Yes	Remove
165	1	1.1	12.00	0.00	None	None	Retain
166	0.53	0	6.36	0.00	None	None	Retain
167	0.44	0	5.28	0.00	None	None	Retain
168	0.39	0	4.68	0.00	None	None	Retain
169	0.33	0	3.96	0.00	None	None	Retain
170	0.35	0	4.20	0.00	None	None	Retain
171	0.2	0	2.40	0.00	None	None	Retain
172	0.52	0	6.24	0.00	None	None	Retain
173	0.46	0	5.52	0.00	None	None	Retain
174	0.31	0	3.72	0.00	None	None	Retain
175	0.31	0	3.72	0.00	None	None	Retain
176	0.53	0	6.36	0.00	None	None	Retain
177	0.5	0	6.00	0.00	None	None	Retain
178	0.38	0	4.56	0.00	None	None	Retain
179	0.29	0	3.48	0.00	None	None	Retain
180	0.35	0	4.20	0.00	None	None	Retain
181	0.14	0	2.00	0.00	None	None	Retain

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ID	DBH	DAB	NRZ	SRZ	NRZ Encroachment	SRZ Incursion	Status
182	0.23	0	2.76	0.00	None	None	Retain
183	0.12	0	2.00	0.00	None	None	Retain
184	0.35	0	4.20	0.00	None	None	Retain
185	0.11	0.12	2.00	1.50	None	None	Retain
186	0.15	0.19	2.00	1.65	None	None	Retain
187	0.19	0.23	2.28	1.79	None	None	Retain
188	0.15	0	2.00	0.00	None	None	Retain
189	0.32	0	3.84	0.00	None	None	Retain
190	0.35	0	4.20	0.00	None	None	Retain
191	0.5	0	6.00	0.00	None	None	Retain
192	0.55	0.45	6.60	0.00	Major	Yes	Remove - practical retention possible
193	1.3	1.5	15.00	3.92	None	None	Retain
194	0.41	0.46	4.92	0.00	Major	Yes	Remove
195	0.8	0	9.60	0.00	None	None	Retain
196	0.95	0	11.40	0.00	None	None	Retain
197	1.1	0	13.20	0.00	None	None	Retain
198	0.9	0	10.80	0.00	None	None	Retain
199	0.35	0	4.20	0.00	None	None	Retain
200	0.1	0	2.00	0.00	Minor	No	Retain with supervision
201	0.22	0	2.64	0.00	None	None	Retain
202	0.2	0.25	2.40	1.85	Minor	No	Retain with supervision
203	0.1	0.15	2.00	1.50	Minor	No	Retain with supervision
204	0.7	0	8.40	0.00	None	None	Retain
205	0.68	0	8.16	0.00	None	None	Retain
206	0.9	0	10.80	0.00	None	None	Retain
207	0.4	0	4.80	0.00	None	None	Retain
208	0.27	0	3.24	0.00	None	None	Retain
209	0.21	0	2.52	0.00	None	None	Retain
210	0.45	0	5.40	0.00	None	None	Retain
211	0.13	0	2.00	0.00	None	None	Retain
212	0.33	0	3.96	0.00	None	None	Retain
213	0.45	0	5.40	0.00	None	None	Retain
214	0.36	0	4.32	0.00	None	None	Retain
215	0.18	0	2.16	0.00	None	None	Retain
216	1	0	12.00	0.00	None	None	Retain
217	0.38	0	4.56	0.00	None	None	Retain
218	0.3	0	3.60	0.00	None	None	Retain
219	0.3	0	3.60	0.00	None	None	Retain
220	0.28	0	3.36	0.00	None	None	Retain
221	0.3	0	3.60	0.00	None	None	Retain
222	0.33	0	3.96	0.00	None	None	Retain
223	0.46	0	5.52	0.00	None	None	Retain
224	0.39	0	4.68	0.00	None	None	Retain
225	0.2	0	2.40	0.00	None	None	Retain
226	0.3	0	3.60	0.00	None	None	Retain

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ID	DBH	DAB	NRZ	SRZ	NRZ Encroachment	SRZ Incursion	Status
227	0.6	0	7.20	0.00	None	None	Retain
228	0.5	0	6.00	0.00	None	None	Retain
229	0.43	0	5.16	0.00	None	None	Retain
230	0.81	0	9.72	0.00	None	None	Retain
231	0.34	0	4.08	0.00	None	None	Retain
232	0.38	0	4.56	0.00	None	None	Retain
233	0.3	0	3.60	0.00	None	None	Retain
234	1.5	0	15.00	0.00	None	None	Retain
235	1.35	0	15.00	0.00	None	None	Retain
236	0.9	1	10.80	3.31	None	None	Retain
237	1.56	0	15.00	0.00	None	None	Retain
238	0.17	0.23	2.04	1.79	Major	Yes	Remove
239	0.28	0.6	3.36	2.67	Major	Yes	Remove
240	0.65	0.7	7.80	0.00	None	None	Retain
241	0.7	0.75	8.40	0.00	None	None	Retain
242	0.75	0.8	9.00	0.00	None	None	Retain
243	0.1	0.15	2.00	0.00	None	None	Retain
244	0.16	0.21	2.00	0.00	None	None	Retain
245	0.1	0.15	2.00	0.00	None	None	Retain
246	1.1	1.2	13.20	0.00	None	None	Retain
247	0.64	1.8	7.68	4.24	None	None	Retain
248	0.1	0.15	2.00	1.50	None	None	Retain
249	0.34	0	4.08	0.00	None	None	Retain
250	0.15	0	2.00	0.00	None	None	Retain
251	0.17	0	2.04	0.00	None	None	Retain
252	0.46	0.5	5.52	0.00	Minor	No	Retain with supervision
253	0.35	0.45	4.20	0.00	Minor	No	Retain with supervision
254	0.3	0.35	3.60	0.00	None	None	Retain
255	0.3	0.35	3.60	0.00	None	None	Retain
256	0.3	0.35	3.60	0.00	None	None	Retain
257	0.21	0.26	2.52	0.00	None	None	Retain
258	0.26	0.31	3.12	0.00	None	None	Retain
259	0.1	0.12	2.00	1.50	Major	Yes	Remove
260	0.25	0.25	3.00	1.85	Major	Yes	Remove
261	0.09	0.13	2.00	1.50	None	None	Retain
262	0.16	0.22	2.00	1.75	Major	Yes	Remove
263	0.2	0.25	2.40	1.85	Major	Yes	Remove
264	0.94	0.99	11.28	3.30	None	None	Retain
265	0.25	0.35	3.00	2.13	Major	Yes	Remove
266	0.12	0.15	2.00	1.50	Major	Yes	Remove
267	0.98	0.95	11.76	3.24	Minor	No	Retain with supervision
268	0.12	0.18	2.00	1.61	Major	Yes	Remove
269	0.2	0.15	2.40	1.50	Major	Yes	Remove
270	0.2	0.15	2.40	1.50	Major	Yes	Remove
271	0.05	0.08	2.00	1.50	Major	Yes	Remove
272	0.05	0.08	2.00	1.50	Major	Yes	Remove

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ID	DBH	DAB	NRZ	SRZ	NRZ Encroachment	SRZ Incursion	Status
273	0.09	0.14	2.00	1.50	None	None	Retain
274	0.3	0.35	3.60	2.13	None	None	Retain
275	0.4	0.5	4.80	2.47	None	None	Retain
276	0.23	0.3	2.76	2.00	None	None	Retain
277	0.18	0.25	2.16	1.85	Major	Yes	Remove
278	0.23	0.3	2.76	2.00	Major	Yes	Remove
279	0.25	0.3	3.00	2.00	None	None	Retain
280	0.19	0.22	2.28	1.75	Major	Yes	Remove
281	0.35	0.45	4.20	2.37	Major	Yes	Remove
282	0.27	0.4	3.24	2.25	None	None	Retain
283	0.1	0.12	2.00	1.50	Major	Yes	Remove
284	0.12	0.15	2.00	1.50	None	None	Retain
285	0.07	0.12	2.00	1.50	Major	Yes	Remove
286	0.15	0.2	2.00	1.68	None	None	Retain
287	0.09	0.15	2.00	1.50	Major	Yes	Remove
288	0.85	0.9	10.20	3.17	None	None	Retain
289	0.3	0.4	3.60	2.25	Major	Yes	Remove
290	0.12	0.19	2.00	1.65	Major	Yes	Remove
291	0.28	0.33	3.36	2.08	Major	Yes	Remove
292	0.1	0.15	2.00	1.50	Major	Yes	Remove
293	0.1	0.15	2.00	1.50	Major	Yes	Remove
294	0.16	0.18	2.00	1.61	Minor	No	Retain with supervision
295	0.12	0.2	2.00	1.68	Major	Yes	Remove
296	0.33	0.66	3.96	2.78	Major	Yes	Remove
297	0.2	0.34	2.40	2.10	Minor	No	Retain with supervision
298	0.13	0.15	2.00	1.50	Major	Yes	Remove
299	0.4	0.45	4.80	2.37	None	None	Retain
300	0.4	0.45	4.80	2.37	None	None	Retain
301	0.28	0.4	3.36	2.25	None	None	Retain
302	0.3	0.35	3.60	2.13	None	None	Retain
303	0.1	0.12	2.00	1.50	None	None	Retain
304	0.55	0.6	6.60	2.67	None	None	Retain
305	0.15	0.18	2.00	1.61	None	None	Retain
306	0.2	0.25	2.40	1.85	None	None	Retain
307	0.2	0.25	2.40	1.85	None	None	Retain
308	0.06	0.14	2.00	1.50	None	None	Retain
309	0.15	0.2	2.00	1.68	None	None	Retain
310	0	0	2.00	0.00	Major	Yes	Remove
311	0.5	0.55	6.00	2.57	Minor	No	Retain with supervision
312	0.5	0.6	6.00	2.67	Minor	No	Retain with supervision
313	0.5	0.55	6.00	2.57	Minor	No	Retain with supervision
314	0.5	0.55	6.00	2.57	Minor	No	Retain with supervision
315	0.1	0.12	2.00	1.50	None	None	Retain
316	0.21	0.22	2.52	1.75	Minor	No	Retain with supervision
317	0.18	0.2	2.16	1.68	None	None	Retain
318	0.14	0.18	2.00	1.61	Minor	No	Retain with supervision

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ID	DBH	DAB	NRZ	SRZ	NRZ Encroachment	SRZ Incursion	Status
319	0.2	0.25	2.40	1.85	None	None	Retain
320	0.2	0.25	2.40	1.85	None	None	Retain
321	0.22	0.25	2.64	1.85	Minor	No	Retain with supervision
322	0.14	0.15	2.00	1.50	None	None	Retain
323	0.15	0.2	2.00	1.68	Minor	No	Retain with supervision
324	0.19	0.25	2.28	1.85	Minor	No	Retain with supervision
327	0.05	0.08	2.00	1.50	Major	Yes	Remove
328	0.05	0.08	2.00	1.50	Major	Yes	Remove
329	0.05	0.08	2.00	1.50	Major	Yes	Remove
330	0.05	0.08	2.00	1.50	Major	Yes	Remove
331	0.05	0.08	2.00	1.50	Major	Yes	Remove
332	0.05	0.08	2.00	1.50	Major	Yes	Remove
333	0.2	0.15	2.40	1.50	Major	Yes	Remove
334	0.2	0.15	2.40	1.50	Major	Yes	Remove
335	0.2	0.15	2.40	1.50	Major	Yes	Remove
336	0.2	0.15	2.40	1.50	Major	Yes	Remove
337	0.2	0.15	2.40	1.50	Major	Yes	Remove
338	0.2	0.15	2.40	1.50	Major	Yes	Remove
339	0.2	0.15	2.40	1.50	Major	Yes	Remove
340	0.55	0.45	6.60	0.00	Major	Yes	Remove - practical retention possible
341	0.55	0.45	6.60	0.00	None	None	Retain

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Appendix C: Tree Protection Principles

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Tree Protection Principles

Notional Root Zones

The principal means of protecting trees on development sites is by physically isolating the NRZ of trees to be retained from works. Trees require a relatively large area from which to obtain moisture, nutrients and gas exchange. Along with the threat of direct physical injury, soil compaction, a reduction in water infiltration and/or soil contamination all pose significant threats to long-term tree viability. For this reason, Notional Root Zones and/or Tree Protection Zones are often utilised by project arborists as primary protection measures.

The Notional Root Zone is an approximation of the surface area required by a tree to satisfactorily obtain required resources and remain viable. The NRZ considers both crown and root requirements for protection and can be calculated as follows:

NRZ = DSH* x 12

*DSH = Diameter at Standard Height, measured at 1.4m above ground as per AS4970-2025.

Calculated NRZ radius should always be between 2-15m and should also encompass any overhanging canopies in the event of trees with asymmetrical crown growth as is common for many Eucalypt species (e.g. *Eucalyptus camaldulensis*).

The NRZs of palms, other monocots, cycads and tree ferns should be no less than 1m beyond the crown projection.

Structural Root Zones

The Structural Root Zone (SRZ) is the approximated area required for tree stability and is calculated as follows:

SRZ radius = $(DAB^* \times 50)^{0.42} \times 0.64$

*DAB = Diameter at Base, measured in meters immediately above the root buttress.

The SRZ radius shall be no less than 1.5m. It is critical that structural roots, including dead roots, are preserved and not severed during works. On occasion, activities involving ground disturbance may be unavoidable within the SRZ (i.e. service locating). In these instances, Non-Destructive Digging (NDD) methodologies must be employed (e.g. airspade, or pressurised water) with all works conducted under supervision by the project arborist.

The SRZ only needs to be calculated where a major NRZ encroachment is anticipated.

NRZ Encroachment

AS4970-2025 allows for some variations to be made to standard NRZ areas and makes a distinction between minor, moderate and major NRZ encroachment. In some instances, works may be performed within the NRZ of a tree to be retained if compensations in area can be made in other, contiguous parts of the NRZ. Works involving excavation, machine trenching or the placement of compacted fill all constitute encroachment.

Minor Encroachment

An encroachment is classified as *minor* when it affects 10% or less of the NRZ, occurs outside the SRZ, and there is no history of recent encroachments. In these cases, impacts to the tree's health, structure, or long-term viability are generally unlikely. Standard tree protection measures should be implemented during site works. To maintain soil volume and area, the encroached portion of the NRZ should be offset by incorporating an equivalent area into the NRZ, unless the project arborist can justify that the tree's viability will not be compromised.

Moderate Encroachment

An encroachment is considered *moderate* when it affects more than 10% but no more than 20% of the NRZ, and remains outside the SRZ. A project arborist must be engaged to review the encroachment and

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undertake any necessary investigations to demonstrate how the tree's health and stability will be maintained. This may involve design modifications or specific construction measures detailed in a Tree Protection Strategy (TPS) and Tree Protection Plan (TPP). As with minor encroachments, an area equal to the encroached NRZ must be added to the NRZ, unless otherwise justified by the arborist.

Major Encroachment

Encroachments are deemed *major* if they impact more than 20% of the NRZ or occur within the SRZ. In these cases, the project arborist must explore design alternatives with the design team or otherwise demonstrate that the tree will remain viable despite the intrusion. A detailed assessment is required, potentially including root investigations, soil testing, site history, reference literature, or case studies of comparable encroachments. A TPS and TPP must be prepared to support tree retention. To prevent a net loss of root-available soil, the impacted area should be replaced within the NRZ, unless the arborist can provide evidence that retention is still feasible.

Impact Management

A hierarchy of controls is applied regarding tree impact mitigation. The highest order controls are achieved well before a project commences, in the design phase. Initial Arboricultural Impact Assessments inform final/detailed design decisions with the aim of minimising tree loss. A TPP is developed with the aim of avoiding or minimising works-associated impacts to trees earmarked for retention.

Avoid

Impact avoidance measures are the highest order and most effective measures that may be applied. As mentioned above, Impact avoidance measures are primarily addressed during the project design phase. However, the TPP also has a role to play in avoiding impacts to trees during the construction phase of works. The primary avoidance measure is the prescription of Tree Protection Zone (TPZ) Fencing with the aim of physically isolating the NRZs of trees for retention from all aspects of active works including direct ground impacts, storage of materials, soil contamination and the introduction of pathogens.

Mitigate

Impact mitigation measures involve a suite of potential measures applied at various points within the works cycle. All impact mitigation measures are designed to increase the likelihood of tree survival post works with no significant decline in Useful Life Expectancy (ULE). Pre-emptive direct and/or cultural interventions may be applied in the pre-works phase with the aim of both pre-empting likely or unavoidable impacts (i.e. selective limb pruning) or improving tree health and condition prior to the commencement of active works (i.e. mulching and/or watering). Where tree impacts are anticipated (i.e. expected NRZ encroachment), measures such as works supervision are designed to mitigate impact by providing real-time expertise and interpretation of impact assessment to inform future actions. Conformance to best practice thresholds for encroachment such as those referenced within AS4970-2025 can be considered part of impact mitigation.

Tree Protection Measures

TPZ Fencing

TPZ fencing must be erected before works commence and before any machinery or materials are brought onto site.

Cultural Remediation

Mulching

Mulching is prescribed as a measure to maintain soil health and function in instances where TPZ fencing is impractical or where alterations to localised hydrology are anticipated. Mulching within the NRZ assists with soil moisture retention, temperature regulation and gas exchange within the root zone. Mulch should be free of weed seed, maintained to a depth of 50-100mm and compliant with the specifications outlined for mulch within AS4454-2012 'Composts, soil conditioners and mulches.

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Supplementary watering within affected NRZ areas may be required as part site remediation works in order to restore localised soil moisture conditions post works. A post works site assessment from the project arborist will inform any post works tree management requirements.

Supplementary Watering

Where activities are anticipated to lead to a reduction of soil moisture levels or during extended periods of dry and/hot weather supplementary watering can be prescribed to maintain tree health. This may involve the installation of a temporary irrigation system or periodic manual watering events as recommended by the project arborist. Supplementary watering may also be prescribed as a harm reduction measure following root damage or loss.

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Appendix D: Tree Protection Measures

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Tree Protection Zone (TPZ) Fencing

Where Tree Protection Zone (TPZ) fencing is required, it must be installed prior to the commencement of works and before the delivery of machinery or materials to site.

Once established, the fencing is not to be removed or modified for the duration of the works. The type of fencing to be used will be detailed in the Tree Protection Plan (TPP) and must be appropriate for restricting access into the TPZ. This fencing is to remain in place until practical completion. In some cases, existing boundary fences or permanent landscape structures may be used to contribute to TPZ isolation, with such details outlined in the TPP.

All TPZ fencing must display signage clearly identifying the enclosed area as a “Tree Protection Zone” and advising that unauthorised access is prohibited (refer to Figure 3 and Figure 4). Signage should also provide instructions to contact the nominated Environmental Representative if required.

A TPZ sign provides clear and readily accessible information to indicate that a TPZ has been established. An example of a suitable sign as per AS 4970-2025 is below. The sign should be a minimum A3 size.



Figure 2 Example of a suitable sign (source: Standards Australia).

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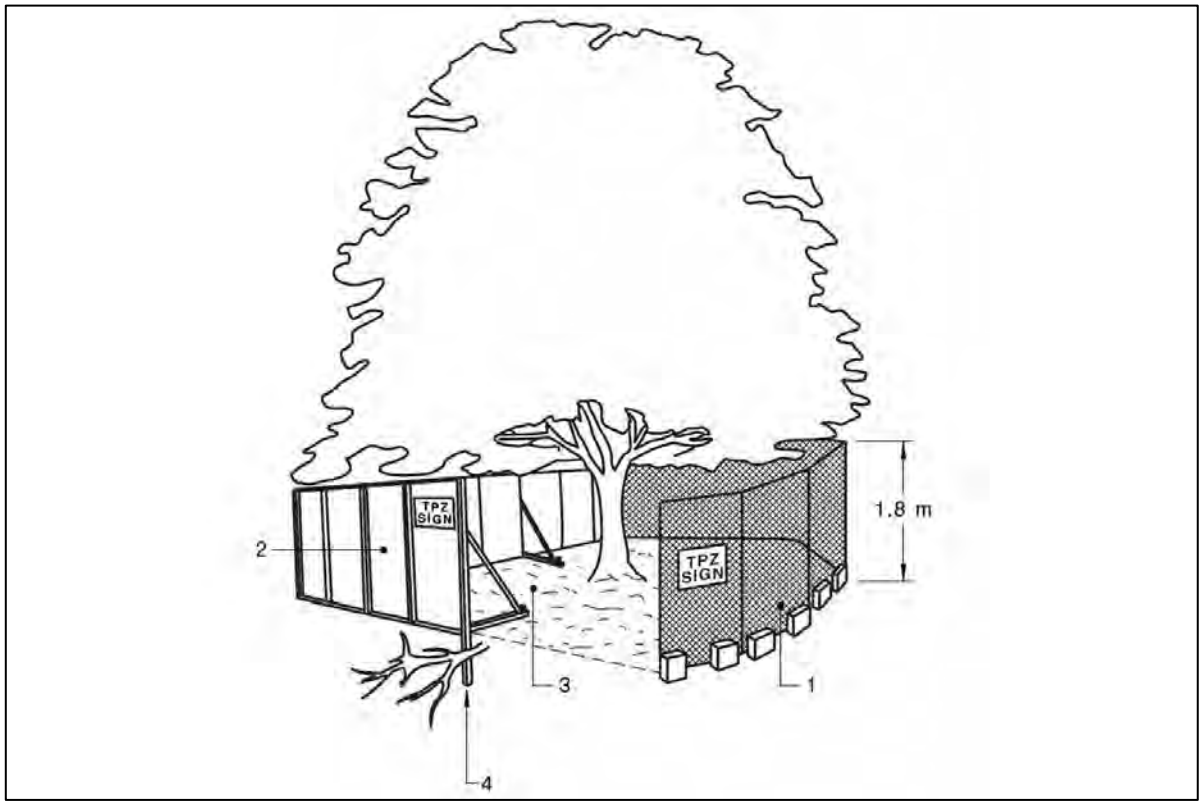

Figure 3 Example of Tree Protection Zone (TPZ) Fencing (source: Standards Australia).

KEY:

1. Chain wire mesh panels that are held in place with concrete feet.
2. Alternatively, plywood or wooden paling fence panels may be used. This fencing material also prevents building materials or soil from entering the TPZ.
3. Mulch installation across the surface of the TPZ (as detailed in the TPS). No excavation, construction activity grade changes, surface treatment or storage of materials of any kind is permitted within the TPZ other than those indicated in the TPS.
4. Bracing may be used within the TPZ. Installation of posts or supports should avoid damaging roots.

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Arborist Supervision of Works

'Any ground disturbance within the NRZ of trees identified for retention (or potential retention) must be carried out under the supervision of the project arborist, in accordance with Section 4.5.4 of *AS 4970–2025 - Protection of Trees on Development Sites*. Where roots are encountered, the project arborist will carefully expose the surrounding soil by hand and determine an appropriate management response (see Figure XYZ). All activities within NRZs are to be recorded by the project arborist to assist in assessing the tree's likely ongoing viability and to inform the tree removal reconciliation process.

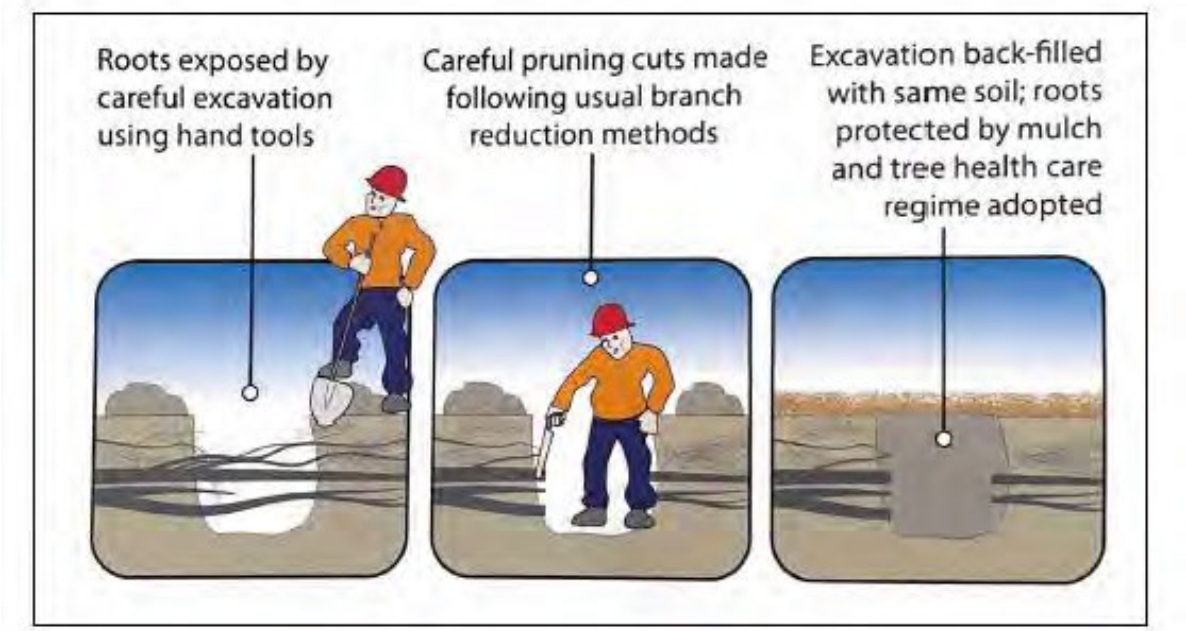

Figure 4 Encountering tree roots (source: Harris 2019 MIS313).

Selective Pruning

All pruning activities, including root pruning, must be undertaken in accordance with the practices set out in AS 4373–2007 *Pruning of Amenity Trees*. Pruning works are to be carried out by a suitably qualified arborist, as defined in Section 3.2 of the Standard. Selective pruning may be undertaken where individual limbs obstruct works or access, or where the project arborist deems them to present an unacceptable safety risk. The total volume of pruning must not exceed one-third of the crown (see Figures 4 and 5), and cuts to the main trunk are not permitted. Practices such as lopping, topping, and flush cutting are unacceptable and must not be carried out.

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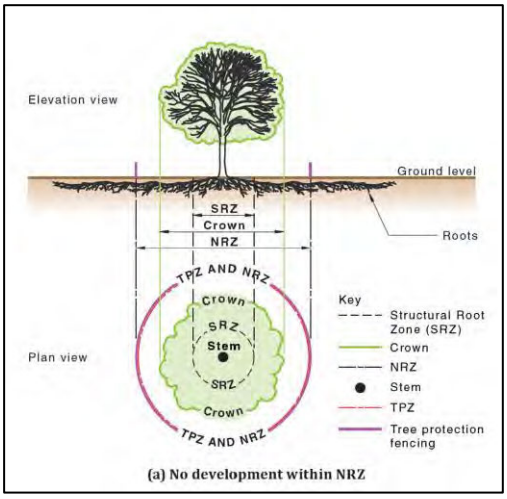

Figure 5 Tree Crown (source: Standards Australia).

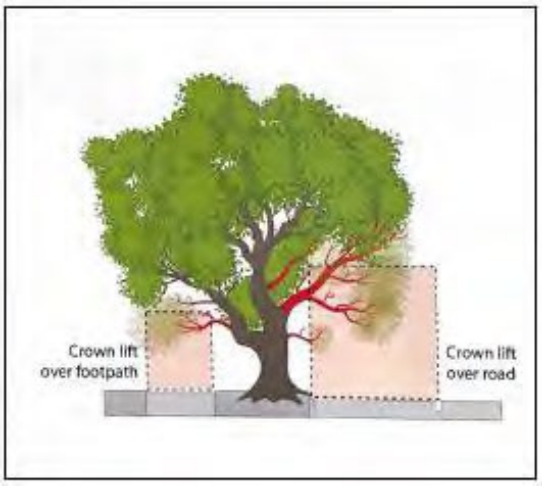

Figure 6 Pruning crown lift (source: Harris 2019 MIS313).

Trunk and Surface Root Protection Measures

Where access or works within a NRZ cannot be avoided, a range of measures can be implemented to minimise direct or indirect impacts on tree health. Protective padding (e.g. high-density foam) may be installed around trunks and/or branches, supported by rigid timber battens and secured with strapping to reduce the risk of vascular damage from incidental contact. Padding and supports must never be affixed to trees with nails or similar fixings.

Surface root protection can be provided through temporary ground protection systems, such as rumble boards. To safeguard existing groundcover, a permeable geotextile membrane should first be laid over the soil surface, followed by a minimum 100 mm layer of mulch or crushed rock. Rumble boards (timber or synthetic) are then to be positioned on top and fixed securely with strapping. The thickness of the boards must be sufficient to support anticipated loads and traffic within the NRZ (refer to Figure 8).

All trunk and root protection measures are to be removed once works are complete or when access is no longer required. During the period that ground protection remains in place, supplementary watering may be required and should also be applied on completion of works to restore localised soil moisture levels.

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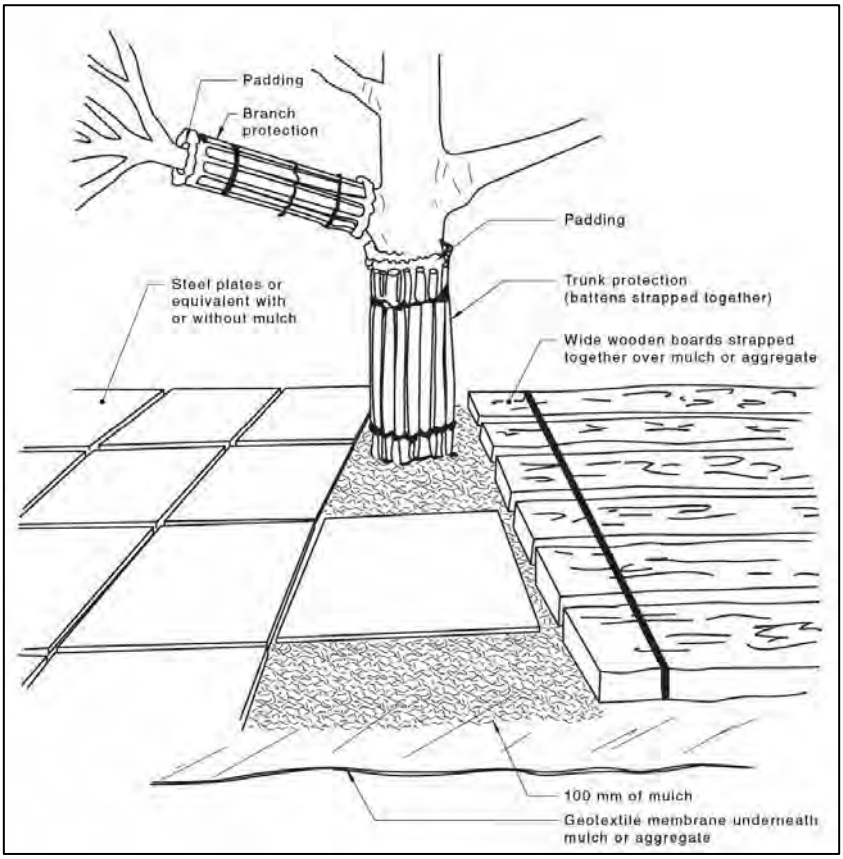

Figure 7 Example of trunk, branch and ground protection (source: Standards Australia).

NOTE 1 – existing hard surfaces, such as driveways or concrete slabs, can be considered suitable ground protection.

NOTE 2 – For trunk and branch protection, boards and padding may be used to prevent damage to bark. Boards shall be joined to each other using hoop straps and screws or similar. They shall not be screwed or nailed to the tree.

NOTE 3 – Wide wooden boards or plastic or metal plates should be of a suitable thickness to spread the load and prevent soil compaction and root damage.

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Appendix E: Tree Attribute Descriptors

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Health		
	Very good	The tree is demonstrating exceptional growth for the species. It has a full, dense canopy and there is no sign of any pest or disease.
	Good	The tree is demonstrating good growth for the species in its location. The canopy is full and complete and there are no signs of pests or disease.
	Fair	The tree may have shown a reduction in optimal growth and/or there may be some twiggy deadwood within the canopy. There may be some evidence of pests or disease, however not at a level detrimental to long term tree health.
	Poor	The tree is in decline with little signs of new growth. There may be sections of the canopy which are missing or discoloured and pests and/or diseases may be prevalent.
	Very Poor	The tree is showing clear signs of decline with large sections of the canopy dead. The tree is unlikely to recover.
Structure		
	Good	The structure is typical for the species with no significant hazards observed. All branches show strong attachments. No significant lean. No evidence of root ball damage.
	Fair	There may be minor defects in the canopy, slight leans, evidence of numerous large surface roots, but the tree is predominantly free of structural issues. Minor pruning may be required.
	Poor	The tree has at least one significant defect that requires intervention. The tree may have asymmetrical form, co-dominant stems, exposed or damaged surface roots, or a significant lean. Trees growing on steep gradients, skeletal soils or where ground disturbance within the structural root zone is evident.
	Hazardous	The tree has significant defects and is likely to fail. Tree removal is recommended where valuable targets or are present or site access is possible and likely.
Useful Life Expectancy (ULE)		
	20+ Years	The tree is healthy with good structure. No short or medium-term constraints to survival have been identified.
	10-20 Years	The tree is in reasonably good condition but may be a short-lived species. The tree may have suffered recent major impacts which are difficult to quantify (i.e. changed root zone hydrology, soil level changes, mechanical root damage).
	5-10 Years	The tree is in poor condition or may be a short-lived species. Removal in the medium term may be required.
	1-5 Years	The tree is showing signs of decline and will require removal if its health cannot be improved.
	>1 Year	The tree has substantial defects leading to likely failure and/or prescribed removal.

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Retention value		
	Very high	The tree is an outstanding example of its species or has a high level of cultural or historical significance.
	High	The tree is a semi-mature or mature specimen which is in good condition, is suitable to the site and has a ULE of 20+ years.
	Moderate	The tree is a semi-mature or mature specimen in fair or good condition and is suitable for retention. It is not located in a prominent location.
	Low	The tree is likely to be either a juvenile specimen or in decline. Retention could be pursued but a works/project redesign may not be warranted to retain this tree in isolation.
	Very low	The tree is considered to be insignificant when considered in isolation. It may be juvenile and prone to natural thinning or in a state of decline with no pre-existing habitat value Its loss would be mostly unnoticed.
	Remove	The tree should be removed regardless of project design as it is in severe decline, hazardous or dead.
Tree Classification		
	Native	The tree is an outstanding example of its species or has a high level of cultural or historical significance.
	Amenity	The tree is an outstanding example of its species or has a high level of cultural or historical significance.
Maturity		
	Over-mature	Evidence of decline in health, form, or structure leading to senescence.
	Mature	Tree able to flower and set seed. Height greater than 80% of anticipated maximum height in prevailing conditions.
	Semi-mature	Tree able to flower and set seed. Height less than 80% of anticipated maximum height in prevailing conditions.
	Juvenile	Immature tree. No evidence of previous flowering or fruiting event.
	Dead	No evidence of above ground living tissue.
Origin		
	Australian	Native to Australia with natural distribution outside Victoria.
	Victorian	Naturally occurs within Victoria.
	Melbournian	Naturally occurs within Greater Melbourne.
	Exotic	Not native in Australia.

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Appendix F: Tree Inventory

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Latitude	-37.569407
Longitude	144.936581
Tree Identifier	4
Botanic Name	*Eucalyptus leucoxylon*
Common Name	Yellow gum
Tree Height (m)	8
DSH (1.4m)	0.22
DAB	0.26
Tree Health	Good
Tree Structure	Good
ULE	20+ years
Comments	
Retention Value	Moderately Significant
NRZ	2.64
SRZ	1.88

Photos



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Latitude	-37.569376
Longitude	144.936454
Tree Identifier	6
Botanic Name	*Bursaria spinosa*
Common Name	Sweet Bursaria
Tree Height (m)	5
DSH (1.4m)	0.15
DAB	0.1
Tree Health	Good
Tree Structure	Good
ULE	20+ years
Comments	
Retention Value	None
NRZ	2
SRZ	1.5

Photos



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Latitude	-37.569391
Longitude	144.936412
Tree Identifier	7
Botanic Name	*Bursaria spinosa*
Common Name	Sweet Bursaria
Tree Height (m)	3
DSH (1.4m)	0.16
DAB	0.2
Tree Health	Poor
Tree Structure	Fair
ULE	10-20 years
Comments	
Retention Value	None
NRZ	2
SRZ	1.68

Photos



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Latitude	-37.569404
Longitude	144.936534
Tree Identifier	8
Botanic Name	*Allocasurina verticillata*
Common Name	Drooping sheoak
Tree Height (m)	8
DSH (1.4m)	0.36
DAB	0.4
Tree Health	Good
Tree Structure	Good
ULE	20+ years
Comments	
Retention Value	Moderately Significant
NRZ	4.32
SRZ	2.25

Photos



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Latitude	-37.569306
Longitude	144.936212
Tree Identifier	21
Botanic Name	*Eucalyptus leucoxylon*
Common Name	Yellow gum
Tree Height (m)	6
DSH (1.4m)	0.18
DAB	0.23
Tree Health	Good
Tree Structure	Good
ULE	20+ years
Comments	
Retention Value	Moderately Significant
NRZ	2.16
SRZ	1.79

Photos



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Latitude	-37.56934
Longitude	144.936068
Tree Identifier	22
Botanic Name	*Eucalyptus leucoxylon*
Common Name	Yellow gum
Tree Height (m)	6
DSH (1.4m)	0.15
DAB	0.2
Tree Health	Good
Tree Structure	Good
ULE	20+ years
Comments	
Retention Value	Moderately Significant
NRZ	2
SRZ	1.68

Photos



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Latitude	-37.569309
Longitude	144.935741
Tree Identifier	25
Botanic Name	*Eucalyptus leucoxylon*
Common Name	Yellow gum
Tree Height (m)	5
DSH (1.4m)	0.12
DAB	0.15
Tree Health	Good
Tree Structure	Good
ULE	20+ years
Comments	
Retention Value	Moderately Significant
NRZ	2
SRZ	1.5

Photos



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Latitude	-37.569287
Longitude	144.93564
Tree Identifier	26
Botanic Name	*Eucalyptus leucoxylon*
Common Name	Yellow gum
Tree Height (m)	5
DSH (1.4m)	0.1
DAB	0.13
Tree Health	Good
Tree Structure	Good
ULE	20+ years
Comments	
Retention Value	Moderately Significant
NRZ	2
SRZ	1.5

Photos



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Latitude	-37.569294
Longitude	144.935844
Tree Identifier	27
Botanic Name	*Eucalyptus leucoxylon*
Common Name	Yellow gum
Tree Height (m)	6
DSH (1.4m)	0.15
DAB	0.18
Tree Health	Good
Tree Structure	Good
ULE	20+ years
Comments	
Retention Value	Moderately Significant
NRZ	2
SRZ	1.61

Photos



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Latitude	-37.56924
Longitude	144.93557
Tree Identifier	28
Botanic Name	*Eucalyptus leucoxylon*
Common Name	Yellow gum
Tree Height (m)	5
DSH (1.4m)	0.11
DAB	0.16
Tree Health	Good
Tree Structure	Good
ULE	20+ years
Comments	
Retention Value	Moderately Significant
NRZ	2
SRZ	1.53

Photos



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Latitude	-37.569298
Longitude	144.935571
Tree Identifier	29
Botanic Name	*Eucalyptus leucoxylon*
Common Name	Yellow Gum
Tree Height (m)	
DSH (1.4m)	0.15
DAB	0.2
Tree Health	Good
Tree Structure	Good
ULE	20+ years
Comments	
Retention Value	None
NRZ	2
SRZ	1.68

Photos



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Latitude	-37.569295
Longitude	144.935374
Tree Identifier	30
Botanic Name	*Eucalyptus leucoxylon*
Common Name	Yellow Gum
Tree Height (m)	6
DSH (1.4m)	0.2
DAB	0.3
Tree Health	Good
Tree Structure	Good
ULE	20+ years
Comments	
Retention Value	None
NRZ	2.4
SRZ	2

Photos



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Latitude	-37.569217
Longitude	144.935466
Tree Identifier	31
Botanic Name	*Eucalyptus leucoxylon*
Common Name	Yellow gum
Tree Height (m)	9
DSH (1.4m)	0.21
DAB	0.26
Tree Health	Good
Tree Structure	Good
ULE	20+ years
Comments	
Retention Value	Moderately Significant
NRZ	2.52
SRZ	1.88

Photos



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Latitude	-37.569196
Longitude	144.935372
Tree Identifier	32
Botanic Name	*Eucalyptus leucoxylon*
Common Name	Yellow gum
Tree Height (m)	4
DSH (1.4m)	0.11
DAB	0.13
Tree Health	Fair
Tree Structure	Good
ULE	20+ years
Comments	
Retention Value	Moderately Significant
NRZ	2
SRZ	1.5

Photos



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Latitude	-37.569228
Longitude	144.93529
Tree Identifier	33
Botanic Name	*Eucalyptus leucoxylon*
Common Name	Yellow Gum
Tree Height (m)	
DSH (1.4m)	0.23
DAB	0.32
Tree Health	Good
Tree Structure	Good
ULE	20+ years
Comments	
Retention Value	None
NRZ	2.76
SRZ	2.05

Photos



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Latitude	-37.569283
Longitude	144.935234
Tree Identifier	34
Botanic Name	*Eucalyptus leucoxylon*
Common Name	Yellow gum
Tree Height (m)	3
DSH (1.4m)	0.05
DAB	0.12
Tree Health	Dead
Tree Structure	Poor
ULE	<1 year
Comments	Dead tree no NRZ
Retention Value	None
NRZ	2
SRZ	1.5

Photos



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Latitude	-37.569209
Longitude	144.935225
Tree Identifier	35
Botanic Name	*Eucalyptus leucoxylon*
Common Name	Yellow Gum
Tree Height (m)	5
DSH (1.4m)	0.13
DAB	0.19
Tree Health	Good
Tree Structure	Good
ULE	20+ years
Comments	
Retention Value	None
NRZ	2
SRZ	1.65

Photos



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Latitude	-37.569253
Longitude	144.935145
Tree Identifier	36
Botanic Name	*Eucalyptus leucoxylon*
Common Name	Yellow gum
Tree Height (m)	6
DSH (1.4m)	0.16
DAB	0.22
Tree Health	Good
Tree Structure	Good
ULE	20+ years
Comments	
Retention Value	Moderately Significant
NRZ	2
SRZ	1.75

Photos



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Latitude	-37.569181
Longitude	144.935038
Tree Identifier	37
Botanic Name	*Eucalyptus polyanthemos*
Common Name	Red Box
Tree Height (m)	5
DSH (1.4m)	0.22
DAB	0.3
Tree Health	Good
Tree Structure	Good
ULE	20+ years
Comments	
Retention Value	None
NRZ	2.64
SRZ	2

Photos



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Latitude	-37.569169
Longitude	144.935151
Tree Identifier	38
Botanic Name	*Eucalyptus polyanthemos*
Common Name	Red Box
Tree Height (m)	5
DSH (1.4m)	0.19
DAB	0.23
Tree Health	Good
Tree Structure	Good
ULE	20+ years
Comments	
Retention Value	None
NRZ	2.28
SRZ	1.79

Photos



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Latitude	-37.569188
Longitude	144.934826
Tree Identifier	39
Botanic Name	*Eucalyptus leucoxylon*
Common Name	Yellow Gum
Tree Height (m)	
DSH (1.4m)	0.18
DAB	0.24
Tree Health	Good
Tree Structure	Good
ULE	20+ years
Comments	
Retention Value	Low
NRZ	2.16
SRZ	1.82

Photos



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Latitude	-37.569126
Longitude	144.934692
Tree Identifier	41
Botanic Name	*Eucalyptus leucoxylon*
Common Name	Yellow Gum
Tree Height (m)	4
DSH (1.4m)	0.15
DAB	0.2
Tree Health	Good
Tree Structure	Good
ULE	20+ years
Comments	
Retention Value	Low
NRZ	2
SRZ	1.68

Photos



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Latitude	-37.569423
Longitude	144.937701
Tree Identifier	53
Botanic Name	*Eucalyptus polyanthemos*
Common Name	Red Box
Tree Height (m)	10
DSH (1.4m)	0.23
DAB	0.3
Tree Health	Good
Tree Structure	Good
ULE	20+ years
Comments	
Retention Value	Moderately Significant
NRZ	2.76
SRZ	2

Photos



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Latitude	-37.569478
Longitude	144.938139
Tree Identifier	54
Botanic Name	*Eucalyptus polyanthemos*
Common Name	Red box
Tree Height (m)	6
DSH (1.4m)	0.19
DAB	0.24
Tree Health	Good
Tree Structure	Good
ULE	20+ years
Comments	
Retention Value	Moderately Significant
NRZ	2.28
SRZ	1.82

Photos



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Latitude	-37.569492
Longitude	144.938216
Tree Identifier	55
Botanic Name	*Eucalyptus polyanthemos*
Common Name	Red box
Tree Height (m)	7
DSH (1.4m)	0.21
DAB	0.25
Tree Health	Fair
Tree Structure	Fair
ULE	20+ years
Comments	
Retention Value	Moderately Significant
NRZ	2.52
SRZ	1.85

Photos



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Latitude	-37.569499
Longitude	144.938292
Tree Identifier	56
Botanic Name	*Eucalyptus melliodora*
Common Name	Yellow box
Tree Height (m)	7
DSH (1.4m)	0.2
DAB	0.24
Tree Health	Good
Tree Structure	Good
ULE	20+ years
Comments	
Retention Value	Moderately Significant
NRZ	2.4
SRZ	1.82

Photos



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Latitude	-37.569512
Longitude	144.938399
Tree Identifier	57
Botanic Name	*Eucalyptus melliodora*
Common Name	Yellow box
Tree Height (m)	8
DSH (1.4m)	0.2
DAB	0.25
Tree Health	Good
Tree Structure	Good
ULE	20+ years
Comments	
Retention Value	Moderately Significant
NRZ	2.4
SRZ	1.85

Photos



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Latitude	-37.569527
Longitude	144.938517
Tree Identifier	58
Botanic Name	*Eucalyptus melliodora*
Common Name	Yellow box
Tree Height (m)	9
DSH (1.4m)	0.22
DAB	0.26
Tree Health	Good
Tree Structure	Good
ULE	20+ years
Comments	
Retention Value	Moderately Significant
NRZ	2.64
SRZ	1.88

Photos



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Latitude	-37.569552
Longitude	144.938605
Tree Identifier	59
Botanic Name	*Eucalyptus melliodora*
Common Name	Yellow box
Tree Height (m)	10
DSH (1.4m)	0.24
DAB	0.3
Tree Health	Good
Tree Structure	Good
ULE	20+ years
Comments	
Retention Value	Moderately Significant
NRZ	2.88
SRZ	2

Photos



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Latitude	-37.569583
Longitude	144.938698
Tree Identifier	60
Botanic Name	*Acacia melanoxylon*
Common Name	Blackwood
Tree Height (m)	9
DSH (1.4m)	0.38
DAB	0.5
Tree Health	Good
Tree Structure	Fair
ULE	20+ years
Comments	
Retention Value	None
NRZ	4.56
SRZ	2.47

Photos



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Latitude	-37.569628
Longitude	144.939073
Tree Identifier	64
Botanic Name	*Corymbia maculata*
Common Name	Spotted Gum
Tree Height (m)	10
DSH (1.4m)	0.22
DAB	0.35
Tree Health	Good
Tree Structure	Good
ULE	20+ years
Comments	
Retention Value	None
NRZ	2.64
SRZ	2.13

Photos



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Latitude	-37.569729
Longitude	144.939265
Tree Identifier	87
Botanic Name	*Corymbia maculata*
Common Name	Spotted Gum
Tree Height (m)	7
DSH (1.4m)	0.27
DAB	0.31
Tree Health	Good
Tree Structure	Good
ULE	20+ years
Comments	
Retention Value	None
NRZ	3.24
SRZ	2.02

Photos



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Latitude	-37.569661
Longitude	144.939168
Tree Identifier	89
Botanic Name	*Corymbia maculata*
Common Name	Spotted Gum
Tree Height (m)	9
DSH (1.4m)	0.17
DAB	0.23
Tree Health	Good
Tree Structure	Good
ULE	20+ years
Comments	
Retention Value	None
NRZ	2.04
SRZ	1.79

Photos



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Latitude	-37.569644
Longitude	144.938792
Tree Identifier	91
Botanic Name	*Eucalyptus polyanthemos*
Common Name	Red Box
Tree Height (m)	3
DSH (1.4m)	0.17
DAB	0.22
Tree Health	Fair
Tree Structure	Good
ULE	20+ years
Comments	
Retention Value	None
NRZ	2.04
SRZ	1.75

Photos



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Latitude	-37.569682
Longitude	144.938861
Tree Identifier	93
Botanic Name	*Eucalyptus polyanthemos*
Common Name	Red Box
Tree Height (m)	10
DSH (1.4m)	0.28
DAB	0.34
Tree Health	Good
Tree Structure	Good
ULE	20+ years
Comments	
Retention Value	None
NRZ	3.36
SRZ	2.1

Photos



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Stantec

Aurora Tree Assessment

Arboricultural Assessment Checklist | 101

Latitude	-37.571434
Longitude	144.952991
Tree Identifier	101
Botanic Name	*Eucalyptus camaldulensis*
Common Name	River Red Gum
Tree Height (m)	12
DSH (1.4m)	1.23
DAB	1.31
Tree Health	Good
Tree Structure	Good
ULE	20+ years
Comments	
Retention Value	None
NRZ	14.76
SRZ	3.71

Photos



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Latitude	-37.571707
Longitude	144.952752
Tree Identifier	104
Botanic Name	*Eucalyptus camaldulensis*
Common Name	River red gum
Tree Height (m)	20
DSH (1.4m)	1.59
DAB	1.37
Tree Health	Good
Tree Structure	Good
ULE	20+ years
Comments	
Retention Value	Significant
NRZ	15
SRZ	3.78

Photos



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Latitude	-37.571795
Longitude	144.953006
Tree Identifier	105
Botanic Name	*Eucalyptus camaldulensis*
Common Name	River red gum
Tree Height (m)	12
DSH (1.4m)	0.92
DAB	0.92
Tree Health	Good
Tree Structure	Good
ULE	20+ years
Comments	
Retention Value	Significant
NRZ	11.04
SRZ	3.2

Photos



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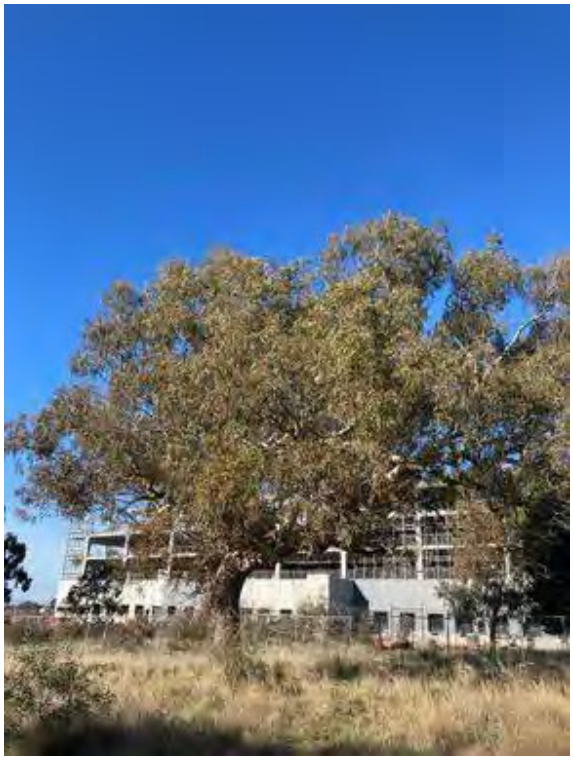
Latitude	-37.571881
Longitude	144.953276
Tree Identifier	106
Botanic Name	*Eucalyptus camaldulensis*
Common Name	River red gum
Tree Height (m)	12
DSH (1.4m)	0.82
DAB	0.87
Tree Health	Good
Tree Structure	Good
ULE	20+ years
Comments	
Retention Value	Significant
NRZ	9.84
SRZ	3.12

Photos



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Latitude	-37.57173
Longitude	144.954308
Tree Identifier	107
Botanic Name	*Eucalyptus camaldulensis*
Common Name	River Red Gum
Tree Height (m)	11
DSH (1.4m)	0.92
DAB	1.04
Tree Health	Good
Tree Structure	Good
ULE	20+ years
Comments	
Retention Value	None
NRZ	11.04
SRZ	3.36

Photos



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Latitude	-37.571862
Longitude	144.954547
Tree Identifier	108
Botanic Name	*Eucalyptus camaldulensis*
Common Name	River red gum
Tree Height (m)	15
DSH (1.4m)	0.3
DAB	0.39
Tree Health	Good
Tree Structure	Good
ULE	20+ years
Comments	
Retention Value	Moderately Significant
NRZ	3.6
SRZ	2.23

Photos



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Latitude	-37.572002
Longitude	144.954792
Tree Identifier	110
Botanic Name	*Eucalyptus camaldulensis*
Common Name	River red gum
Tree Height (m)	20
DSH (1.4m)	1.64
DAB	1.8
Tree Health	Good
Tree Structure	Good
ULE	20+ years
Comments	
Retention Value	Highly Significant
NRZ	15
SRZ	4.24

Photos



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Latitude	-37.571731
Longitude	144.954685
Tree Identifier	111
Botanic Name	*Eucalyptus camaldulensis*
Common Name	River Red Gum
Tree Height (m)	
DSH (1.4m)	0.76
DAB	1.02
Tree Health	Good
Tree Structure	Good
ULE	20+ years
Comments	
Retention Value	None
NRZ	9.12
SRZ	3.34

Photos



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Latitude	-37.572001
Longitude	144.955558
Tree Identifier	122
Botanic Name	*Eucalyptus camaldulensis*
Common Name	River Red Gum
Tree Height (m)	11
DSH (1.4m)	0.28
DAB	0.44
Tree Health	Good
Tree Structure	Good
ULE	20+ years
Comments	
Retention Value	None
NRZ	3.36
SRZ	2.34

Photos



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Latitude	-37.571988
Longitude	144.955531
Tree Identifier	123
Botanic Name	*Eucalyptus camaldulensis*
Common Name	River Red Gum
Tree Height (m)	
DSH (1.4m)	0.34
DAB	0.48
Tree Health	Good
Tree Structure	Good
ULE	20+ years
Comments	
Retention Value	None
NRZ	4.08
SRZ	2.43

Photos



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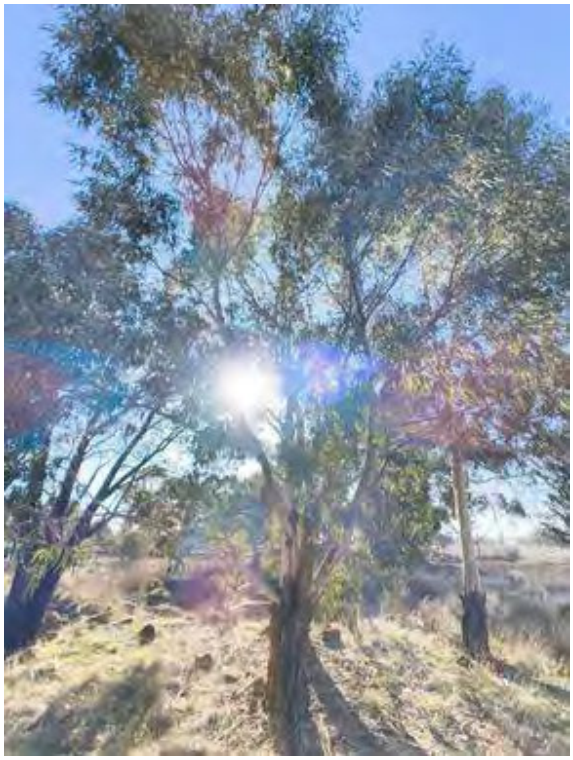
Latitude	-37.57201
Longitude	144.955515
Tree Identifier	124
Botanic Name	
Common Name	
Tree Height (m)	7
DSH (1.4m)	0.36
DAB	0.45
Tree Health	Good
Tree Structure	Fair
ULE	20+ years
Comments	
Retention Value	None
NRZ	4.32
SRZ	2.37

Photos



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Latitude	-37.571985
Longitude	144.955473
Tree Identifier	125
Botanic Name	*Eucalyptus sideroxylon*
Common Name	Red Ironbark
Tree Height (m)	9
DSH (1.4m)	0.48
DAB	0.6
Tree Health	Good
Tree Structure	Good
ULE	20+ years
Comments	
Retention Value	None
NRZ	5.76
SRZ	2.67

Photos



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Latitude	-37.570622
Longitude	144.947602
Tree Identifier	136
Botanic Name	*Acacia mearnsii*
Common Name	Black Wattle
Tree Height (m)	
DSH (1.4m)	0.18
DAB	0.23
Tree Health	Fair
Tree Structure	Fair
ULE	20+ years
Comments	
Retention Value	None
NRZ	2.16
SRZ	1.79

Photos



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Latitude	-37.57087
Longitude	144.947416
Tree Identifier	137
Botanic Name	*Eucalyptus xstudleyensis*
Common Name	River red gum
Tree Height (m)	18
DSH (1.4m)	1.4
DAB	1.5
Tree Health	Fair
Tree Structure	Fair
ULE	20+ years
Comments	Suspected SPG. Bark high 3.0m, buds with RRG pinch, fruit typical of ovata
Retention Value	Highly Significant
NRZ	15
SRZ	3.92

Photos



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Latitude	-37.570669
Longitude	144.943981
Tree Identifier	143
Botanic Name	
Common Name	
Tree Height (m)	
DSH (1.4m)	
DAB	
Tree Health	
Tree Structure	
ULE	
Comments	Tree no longer present
Retention Value	
NRZ	
SRZ	

Photos



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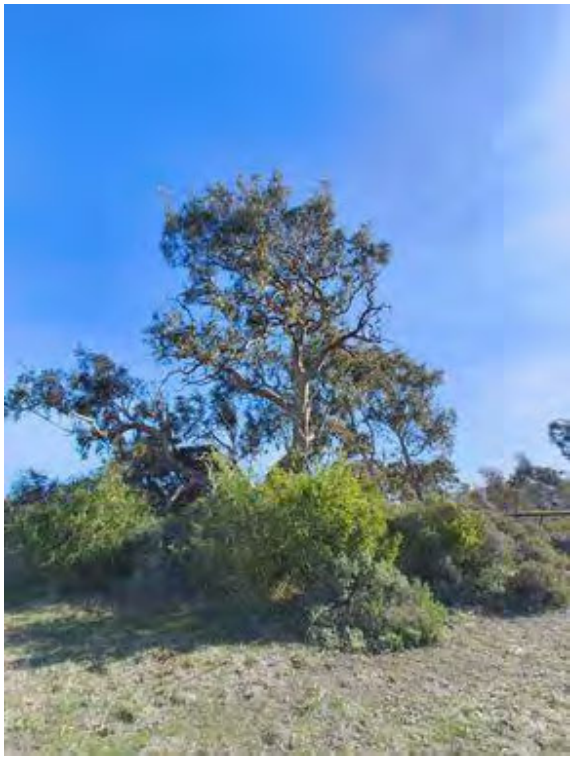
Latitude	-37.586879
Longitude	144.950046
Tree Identifier	158
Botanic Name	
Common Name	
Tree Height (m)	13
DSH (1.4m)	1
DAB	1.1
Tree Health	Fair
Tree Structure	Good
ULE	20+ years
Comments	
Retention Value	None
NRZ	12
SRZ	3.44

Photos



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Latitude	-37.568815
Longitude	144.934742
Tree Identifier	185
Botanic Name	*Allocasurina littoralis*
Common Name	Black sheoak
Tree Height (m)	6
DSH (1.4m)	0.11
DAB	0.12
Tree Health	Good
Tree Structure	Good
ULE	20+ years
Comments	
Retention Value	Low
NRZ	2
SRZ	1.5

Photos



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Latitude	-37.568823
Longitude	144.934838
Tree Identifier	186
Botanic Name	*Acacia pycnantha*
Common Name	Golden wattle
Tree Height (m)	7
DSH (1.4m)	0.15
DAB	0.19
Tree Health	Good
Tree Structure	Good
ULE	5-10 years
Comments	
Retention Value	Moderately Significant
NRZ	2
SRZ	1.65

Photos



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Latitude	-37.568818
Longitude	144.934779
Tree Identifier	187
Botanic Name	*Acacia implexa*
Common Name	Lightwood
Tree Height (m)	8
DSH (1.4m)	0.19
DAB	0.23
Tree Health	Good
Tree Structure	Fair
ULE	10-20 years
Comments	
Retention Value	Moderately Significant
NRZ	2.28
SRZ	1.79

Photos



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Latitude	-37.573481
Longitude	144.956195
Tree Identifier	193
Botanic Name	*Eucalyptus camaldulensis*
Common Name	River red gum
Tree Height (m)	20
DSH (1.4m)	1.3
DAB	1.5
Tree Health	Good
Tree Structure	Good
ULE	20+ years
Comments	
Retention Value	Significant
NRZ	15
SRZ	3.92

Photos



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Aurora Tree Assessment

Arboricultural Assessment Checklist | 202

Latitude	-37.545943
Longitude	144.968232
Tree Identifier	202
Botanic Name	*Prunus cerasifera*
Common Name	Cherry plum
Tree Height (m)	7
DSH (1.4m)	0.2
DAB	0.25
Tree Health	Good
Tree Structure	Fair
ULE	10-20 years
Comments	In rail corridor
Retention Value	Low
NRZ	2.4
SRZ	1.85

Photos



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Latitude	-37.54572
Longitude	144.968369
Tree Identifier	203
Botanic Name	*Prunus cerasifera*
Common Name	Cherry plum
Tree Height (m)	3
DSH (1.4m)	0.1
DAB	0.15
Tree Health	Good
Tree Structure	Good
ULE	10-20 years
Comments	In rail corridor
Retention Value	Low
NRZ	2
SRZ	1.5

Photos



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Latitude	-37.557339
Longitude	144.963086
Tree Identifier	236
Botanic Name	*Eucalyptus camaldulensis*
Common Name	River red gum
Tree Height (m)	20
DSH (1.4m)	0.9
DAB	1
Tree Health	Good
Tree Structure	Good
ULE	20+ years
Comments	Under bore
Retention Value	Highly Significant
NRZ	10.8
SRZ	3.31

Photos



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Latitude	-37.599166
Longitude	144.944914
Tree Identifier	238
Botanic Name	*Prunus cerasifera*
Common Name	Black Cherry
Tree Height (m)	4
DSH (1.4m)	0.17
DAB	0.23
Tree Health	Good
Tree Structure	Good
ULE	10-20 years
Comments	
Retention Value	None
NRZ	2.04
SRZ	1.79

Photos



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Latitude	-37.599119
Longitude	144.944733
Tree Identifier	239
Botanic Name	*Prunus cerasifera*
Common Name	Cherry plum
Tree Height (m)	5
DSH (1.4m)	0.28
DAB	0.6
Tree Health	Poor
Tree Structure	Poor
ULE	1-5 years
Comments	
Retention Value	Low
NRZ	3.36
SRZ	2.67

Photos



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Latitude	-37.593666
Longitude	144.947484
Tree Identifier	247
Botanic Name	*Eucalypt stag*
Common Name	Eucalypt stag
Tree Height (m)	12
DSH (1.4m)	0.64
DAB	1.8
Tree Health	Dead
Tree Structure	Fair
ULE	<1 year
Comments	Dead. No NRZ. DBH 0.50 & 0.40
Retention Value	Significant
NRZ	7.68
SRZ	4.24

Photos



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Latitude	-37.571556
Longitude	144.952869
Tree Identifier	259
Botanic Name	*Eucalyptus camaldulensis*
Common Name	River Red Gum
Tree Height (m)	3
DSH (1.4m)	0.1
DAB	0.12
Tree Health	Good
Tree Structure	Good
ULE	20+ years
Comments	
Retention Value	None
NRZ	2
SRZ	1.5

Photos



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Latitude	-37.571693
Longitude	144.953443
Tree Identifier	260
Botanic Name	*Eucalyptus camaldulensis*
Common Name	River Red Gum
Tree Height (m)	6
DSH (1.4m)	0.25
DAB	0.25
Tree Health	Good
Tree Structure	Good
ULE	20+ years
Comments	
Retention Value	None
NRZ	3
SRZ	1.85

Photos



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Aurora Tree Assessment

Arboricultural Assessment Checklist | 261

Latitude	-37.571831
Longitude	144.953671
Tree Identifier	261
Botanic Name	*Eucalyptus camaldulensis*
Common Name	River red gum
Tree Height (m)	5
DSH (1.4m)	0.09
DAB	0.13
Tree Health	Good
Tree Structure	Good
ULE	20+ years
Comments	
Retention Value	Low
NRZ	2
SRZ	1.5

Photos



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Latitude	-37.571683
Longitude	144.953456
Tree Identifier	262
Botanic Name	*Eucalyptus camaldulensis*
Common Name	River Red Gum
Tree Height (m)	6
DSH (1.4m)	0.16
DAB	0.22
Tree Health	Good
Tree Structure	Good
ULE	20+ years
Comments	
Retention Value	None
NRZ	2
SRZ	1.75

Photos



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Latitude	-37.571678
Longitude	144.953491
Tree Identifier	263
Botanic Name	*Eucalyptus camaldulensis*
Common Name	River Red Gum
Tree Height (m)	6
DSH (1.4m)	0.2
DAB	0.25
Tree Health	Good
Tree Structure	Good
ULE	20+ years
Comments	
Retention Value	None
NRZ	2.4
SRZ	1.85

Photos



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Latitude	-37.572046
Longitude	144.953772
Tree Identifier	264
Botanic Name	*Eucalyptus camaldulensis*
Common Name	River red gum
Tree Height (m)	20
DSH (1.4m)	0.94
DAB	0.99
Tree Health	Good
Tree Structure	Good
ULE	20+ years
Comments	
Retention Value	Significant
NRZ	11.28
SRZ	3.3

Photos



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Latitude	-37.57167
Longitude	144.953535
Tree Identifier	265
Botanic Name	*Eucalyptus camaldulensis*
Common Name	River Red Gum
Tree Height (m)	6
DSH (1.4m)	0.25
DAB	0.35
Tree Health	Good
Tree Structure	Good
ULE	20+ years
Comments	
Retention Value	None
NRZ	3
SRZ	2.13

Photos



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Latitude	-37.571729
Longitude	144.953676
Tree Identifier	266
Botanic Name	*Eucalyptus camaldulensis*
Common Name	River Red Gum
Tree Height (m)	4
DSH (1.4m)	0.12
DAB	0.15
Tree Health	Good
Tree Structure	Good
ULE	20+ years
Comments	
Retention Value	None
NRZ	2
SRZ	1.5

Photos



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Latitude	-37.571909
Longitude	144.953933
Tree Identifier	267
Botanic Name	*Eucalyptus camaldulensis*
Common Name	River red gum
Tree Height (m)	12
DSH (1.4m)	0.98
DAB	0.95
Tree Health	Good
Tree Structure	Good
ULE	20+ years
Comments	
Retention Value	Significant
NRZ	11.76
SRZ	3.24

Photos



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Aurora Tree Assessment

Arboricultural Assessment Checklist | 268

Latitude	-37.571738
Longitude	144.9538
Tree Identifier	268
Botanic Name	*Eucalyptus camaldulensis*
Common Name	River Red Gum
Tree Height (m)	3
DSH (1.4m)	0.12
DAB	0.18
Tree Health	Good
Tree Structure	Good
ULE	20+ years
Comments	
Retention Value	None
NRZ	2
SRZ	1.61

Photos



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Latitude	-37.57179
Longitude	144.953967
Tree Identifier	269
Botanic Name	*Eucalyptus camaldulensis*
Common Name	River Red Gum
Tree Height (m)	3
DSH (1.4m)	0.2
DAB	0.15
Tree Health	Good
Tree Structure	Good
ULE	20+ years
Comments	multistem point 1 (10 trees) -->
Retention Value	None
NRZ	2.4
SRZ	1.5

Photos



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Aurora Tree Assessment

Arboricultural Assessment Checklist | 270

Latitude	-37.571763
Longitude	144.954098
Tree Identifier	270
Botanic Name	*Eucalyptus camaldulensis*
Common Name	River Red Gum
Tree Height (m)	3
DSH (1.4m)	0.2
DAB	0.15
Tree Health	Good
Tree Structure	Good
ULE	20+ years
Comments	multistem point 2 (10 trees) <--
Retention Value	None
NRZ	2.4
SRZ	1.5

Photos



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Aurora Tree Assessment

Arboricultural Assessment Checklist | 271

Latitude	-37.571847
Longitude	144.954118
Tree Identifier	271
Botanic Name	*Eucalyptus camaldulensis*
Common Name	River red gum
Tree Height (m)	3
DSH (1.4m)	0.05
DAB	0.08
Tree Health	Good
Tree Structure	Good
ULE	20+ years
Comments	
Retention Value	Low
NRZ	2
SRZ	1.5

Photos



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Aurora Tree Assessment

Arboricultural Assessment Checklist | 272

Latitude	-37.571839
Longitude	144.954245
Tree Identifier	272
Botanic Name	*Eucalyptus camaldulensis*
Common Name	River red gum
Tree Height (m)	3
DSH (1.4m)	0.05
DAB	0.08
Tree Health	Good
Tree Structure	Good
ULE	20+ years
Comments	Multiple stems. 8 juvenile trees over 3m
Retention Value	Low
NRZ	2
SRZ	1.5

Photos



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Latitude	-37.572142
Longitude	144.955207
Tree Identifier	273
Botanic Name	*Eucalyptus camaldulensis*
Common Name	River red gum
Tree Height (m)	5
DSH (1.4m)	0.09
DAB	0.14
Tree Health	Good
Tree Structure	Good
ULE	20+ years
Comments	Recent soil level change within NRZ
Retention Value	Low
NRZ	2
SRZ	1.5

Photos



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Latitude	-37.593627
Longitude	144.947418
Tree Identifier	274
Botanic Name	*Fraxinus angustifolia*
Common Name	Desert Ash
Tree Height (m)	12
DSH (1.4m)	0.3
DAB	0.35
Tree Health	Good
Tree Structure	Good
ULE	20+ years
Comments	
Retention Value	Low
NRZ	3.6
SRZ	2.13

Photos



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Latitude	-37.59343
Longitude	144.947265
Tree Identifier	275
Botanic Name	*Fraxinus angustifolia*
Common Name	Desert Ash
Tree Height (m)	9
DSH (1.4m)	0.4
DAB	0.5
Tree Health	Good
Tree Structure	Good
ULE	10-20 years
Comments	
Retention Value	None
NRZ	
SRZ	

Photos



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Latitude	-37.57343
Longitude	144.956081
Tree Identifier	276
Botanic Name	*Eucalyptus camaldulensis*
Common Name	River Red Gum
Tree Height (m)	
DSH (1.4m)	0.23
DAB	0.3
Tree Health	Good
Tree Structure	Good
ULE	20+ years
Comments	
Retention Value	None
NRZ	2.76
SRZ	2

Photos



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Latitude	-37.573419
Longitude	144.95605
Tree Identifier	277
Botanic Name	*Eucalyptus camaldulensis*
Common Name	River Red Gum
Tree Height (m)	
DSH (1.4m)	0.18
DAB	0.25
Tree Health	Good
Tree Structure	Good
ULE	20+ years
Comments	
Retention Value	None
NRZ	
SRZ	

Photos



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Latitude	-37.57336
Longitude	144.956092
Tree Identifier	278
Botanic Name	*Eucalyptus camaldulensis*
Common Name	River Red Gum
Tree Height (m)	7
DSH (1.4m)	0.23
DAB	0.3
Tree Health	Good
Tree Structure	Good
ULE	20+ years
Comments	
Retention Value	None
NRZ	2.76
SRZ	2

Photos



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Latitude	-37.573301
Longitude	144.956173
Tree Identifier	279
Botanic Name	*Eucalyptus camaldulensis*
Common Name	River red gum
Tree Height (m)	8
DSH (1.4m)	0.25
DAB	0.3
Tree Health	Good
Tree Structure	Fair
ULE	20+ years
Comments	
Retention Value	Moderately Significant
NRZ	3
SRZ	2

Photos



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Latitude	-37.57298
Longitude	144.956232
Tree Identifier	280
Botanic Name	*Eucalyptus camaldulensis*
Common Name	River red gum
Tree Height (m)	5
DSH (1.4m)	0.19
DAB	0.22
Tree Health	Good
Tree Structure	Fair
ULE	20+ years
Comments	
Retention Value	Low
NRZ	2.28
SRZ	1.75

Photos



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Latitude	-37.57309
Longitude	144.956226
Tree Identifier	281
Botanic Name	*Eucalyptus camaldulensis*
Common Name	River red gum
Tree Height (m)	8
DSH (1.4m)	0.35
DAB	0.45
Tree Health	Good
Tree Structure	Fair
ULE	20+ years
Comments	
Retention Value	Moderately Significant
NRZ	4.2
SRZ	2.37

Photos



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Latitude	-37.573087
Longitude	144.956257
Tree Identifier	282
Botanic Name	*Eucalyptus camaldulensis*
Common Name	River red gum
Tree Height (m)	8
DSH (1.4m)	0.27
DAB	0.4
Tree Health	Good
Tree Structure	Fair
ULE	20+ years
Comments	
Retention Value	Moderately Significant
NRZ	3.24
SRZ	2.25

Photos



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Latitude	-37.572987
Longitude	144.956229
Tree Identifier	283
Botanic Name	*Eucalyptus camaldulensis*
Common Name	River red gum
Tree Height (m)	5
DSH (1.4m)	0.1
DAB	0.12
Tree Health	Good
Tree Structure	Good
ULE	20+ years
Comments	
Retention Value	Low
NRZ	2
SRZ	1.5

Photos



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Latitude	-37.573085
Longitude	144.956262
Tree Identifier	284
Botanic Name	*Eucalyptus camaldulensis*
Common Name	River red gum
Tree Height (m)	6
DSH (1.4m)	0.12
DAB	0.15
Tree Health	Good
Tree Structure	Fair
ULE	20+ years
Comments	
Retention Value	Moderately Significant
NRZ	2
SRZ	1.5

Photos



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Latitude	-37.572941
Longitude	144.956273
Tree Identifier	285
Botanic Name	*Eucalyptus camaldulensis*
Common Name	River red gum
Tree Height (m)	4
DSH (1.4m)	0.07
DAB	0.12
Tree Health	Good
Tree Structure	Good
ULE	20+ years
Comments	
Retention Value	Low
NRZ	2
SRZ	1.5

Photos



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Latitude	-37.573086
Longitude	144.956286
Tree Identifier	286
Botanic Name	*Eucalyptus camaldulensis*
Common Name	River red gum
Tree Height (m)	7
DSH (1.4m)	0.15
DAB	0.2
Tree Health	Good
Tree Structure	Fair
ULE	20+ years
Comments	
Retention Value	Moderately Significant
NRZ	2
SRZ	1.68

Photos



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Aurora Tree Assessment

Arboricultural Assessment Checklist | 287

Latitude	-37.572879
Longitude	144.956266
Tree Identifier	287
Botanic Name	*Eucalyptus camaldulensis*
Common Name	River red gum
Tree Height (m)	5
DSH (1.4m)	0.09
DAB	0.15
Tree Health	Good
Tree Structure	Good
ULE	20+ years
Comments	
Retention Value	Low
NRZ	2
SRZ	1.5

Photos



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Latitude	-37.572939
Longitude	144.956403
Tree Identifier	288
Botanic Name	*Eucalyptus camaldulensis*
Common Name	River red gum
Tree Height (m)	11
DSH (1.4m)	0.85
DAB	0.9
Tree Health	Good
Tree Structure	Fair
ULE	20+ years
Comments	Private
Retention Value	Significant
NRZ	10.2
SRZ	3.17

Photos



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Latitude	-37.572828
Longitude	144.956335
Tree Identifier	289
Botanic Name	*Eucalyptus camaldulensis*
Common Name	River red gum
Tree Height (m)	7
DSH (1.4m)	0.3
DAB	0.4
Tree Health	Good
Tree Structure	Good
ULE	20+ years
Comments	
Retention Value	Moderately Significant
NRZ	3.6
SRZ	2.25

Photos



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Aurora Tree Assessment

Arboricultural Assessment Checklist | 290

Latitude	-37.572424
Longitude	144.95648
Tree Identifier	290
Botanic Name	*Eucalyptus camaldulensis*
Common Name	River red gum
Tree Height (m)	4
DSH (1.4m)	0.12
DAB	0.19
Tree Health	Good
Tree Structure	Good
ULE	20+ years
Comments	
Retention Value	Low
NRZ	2
SRZ	1.65

Photos



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Aurora Tree Assessment

Arboricultural Assessment Checklist | 291

Latitude	-37.572447
Longitude	144.956469
Tree Identifier	291
Botanic Name	*Eucalyptus camaldulensis*
Common Name	River red gum
Tree Height (m)	10
DSH (1.4m)	0.28
DAB	0.33
Tree Health	Good
Tree Structure	Good
ULE	20+ years
Comments	
Retention Value	Moderately Significant
NRZ	
SRZ	2.08

Photos



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Latitude	-37.572769
Longitude	144.956313
Tree Identifier	292
Botanic Name	*Eucalyptus camaldulensis*
Common Name	River red gum
Tree Height (m)	4
DSH (1.4m)	0.1
DAB	0.15
Tree Health	Good
Tree Structure	Good
ULE	20+ years
Comments	
Retention Value	Moderately Significant
NRZ	2
SRZ	1.5

Photos



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Latitude	-37.572743
Longitude	144.956303
Tree Identifier	293
Botanic Name	*Eucalyptus camaldulensis*
Common Name	River red gum
Tree Height (m)	3
DSH (1.4m)	0.1
DAB	0.15
Tree Health	Good
Tree Structure	Good
ULE	20+ years
Comments	
Retention Value	Moderately Significant
NRZ	2
SRZ	1.5

Photos



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Latitude	-37.572475
Longitude	144.956488
Tree Identifier	294
Botanic Name	*Eucalyptus camaldulensis*
Common Name	River red gum
Tree Height (m)	7
DSH (1.4m)	0.16
DAB	0.18
Tree Health	Good
Tree Structure	Good
ULE	20+ years
Comments	
Retention Value	Moderately Significant
NRZ	2
SRZ	1.61

Photos



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Latitude	-37.572497
Longitude	144.95644
Tree Identifier	295
Botanic Name	*Eucalyptus camaldulensis*
Common Name	River red gum
Tree Height (m)	5
DSH (1.4m)	0.12
DAB	0.2
Tree Health	Good
Tree Structure	Poor
ULE	20+ years
Comments	
Retention Value	Low
NRZ	2
SRZ	1.68

Photos



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Latitude	-37.572702
Longitude	144.956337
Tree Identifier	296
Botanic Name	*Eucalyptus camaldulensis*
Common Name	River red gum
Tree Height (m)	8
DSH (1.4m)	0.33
DAB	0.66
Tree Health	Good
Tree Structure	Good
ULE	20+ years
Comments	
Retention Value	Moderately Significant
NRZ	3.96
SRZ	2.78

Photos



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Latitude	-37.572619
Longitude	144.956432
Tree Identifier	297
Botanic Name	*Eucalyptus camaldulensis*
Common Name	River red gum
Tree Height (m)	6
DSH (1.4m)	0.2
DAB	0.34
Tree Health	Good
Tree Structure	Fair
ULE	20+ years
Comments	
Retention Value	Moderately Significant
NRZ	2.4
SRZ	2.1

Photos



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Latitude	-37.572687
Longitude	144.956386
Tree Identifier	298
Botanic Name	*Eucalyptus camaldulensis*
Common Name	River red gum
Tree Height (m)	4
DSH (1.4m)	0.13
DAB	0.15
Tree Health	Good
Tree Structure	Good
ULE	20+ years
Comments	
Retention Value	Moderately Significant
NRZ	2
SRZ	1.5

Photos



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Latitude	-37.568835
Longitude	144.935063
Tree Identifier	299
Botanic Name	*Eucalyptus melliodora*
Common Name	Yellow Box
Tree Height (m)	
DSH (1.4m)	0.4
DAB	0.45
Tree Health	Good
Tree Structure	Good
ULE	20+ years
Comments	
Retention Value	Moderately Significant
NRZ	4.8
SRZ	2.37

Photos



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Aurora Tree Assessment

Arboricultural Assessment Checklist | 300

Latitude	-37.568799
Longitude	144.935043
Tree Identifier	300
Botanic Name	*Eucalyptus melliodora*
Common Name	Yellow Box
Tree Height (m)	
DSH (1.4m)	0.4
DAB	0.45
Tree Health	Good
Tree Structure	Good
ULE	20+ years
Comments	
Retention Value	Moderately Significant
NRZ	4.8
SRZ	2.37

Photos



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Aurora Tree Assessment

Arboricultural Assessment Checklist | 301

Latitude	-37.568772
Longitude	144.935062
Tree Identifier	301
Botanic Name	*Eucalyptus melliodora*
Common Name	Yellow Box
Tree Height (m)	
DSH (1.4m)	0.28
DAB	0.4
Tree Health	Good
Tree Structure	Good
ULE	20+ years
Comments	
Retention Value	Moderately Significant
NRZ	3.36
SRZ	2.25

Photos



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Aurora Tree Assessment

Arboricultural Assessment Checklist | 302

Latitude	-37.568747
Longitude	144.935076
Tree Identifier	302
Botanic Name	*Eucalyptus melliodora*
Common Name	Yellow Box
Tree Height (m)	9
DSH (1.4m)	0.3
DAB	0.35
Tree Health	Good
Tree Structure	Good
ULE	20+ years
Comments	
Retention Value	Moderately Significant
NRZ	3.6
SRZ	2.13

Photos



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Aurora Tree Assessment

Arboricultural Assessment Checklist | 303

Latitude	-37.568727
Longitude	144.935061
Tree Identifier	303
Botanic Name	*Eucalyptus melliodora*
Common Name	Yellow Box
Tree Height (m)	7
DSH (1.4m)	0.1
DAB	0.12
Tree Health	Good
Tree Structure	Good
ULE	20+ years
Comments	
Retention Value	Moderately Significant
NRZ	2
SRZ	1.5

Photos



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Aurora Tree Assessment

Arboricultural Assessment Checklist | 304

Latitude	-37.568701
Longitude	144.93508
Tree Identifier	304
Botanic Name	*Eucalyptus melliodora*
Common Name	Yellow Box
Tree Height (m)	10
DSH (1.4m)	0.55
DAB	0.6
Tree Health	Good
Tree Structure	Good
ULE	20+ years
Comments	
Retention Value	Moderately Significant
NRZ	6.6
SRZ	2.67

Photos



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Aurora Tree Assessment

Arboricultural Assessment Checklist | 305

Latitude	-37.568657
Longitude	144.935088
Tree Identifier	305
Botanic Name	*Eucalyptus melliodora*
Common Name	Yellow Box
Tree Height (m)	9
DSH (1.4m)	0.15
DAB	0.18
Tree Health	Good
Tree Structure	Good
ULE	20+ years
Comments	
Retention Value	Moderately Significant
NRZ	2
SRZ	1.61

Photos



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Aurora Tree Assessment

Arboricultural Assessment Checklist | 306

Latitude	-37.568643
Longitude	144.935109
Tree Identifier	306
Botanic Name	*Eucalyptus melliodora*
Common Name	Yellow Box
Tree Height (m)	9
DSH (1.4m)	0.2
DAB	0.25
Tree Health	Good
Tree Structure	Good
ULE	20+ years
Comments	
Retention Value	Moderately Significant
NRZ	2.4
SRZ	1.85

Photos



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Aurora Tree Assessment

Arboricultural Assessment Checklist | 307

Latitude	-37.568687
Longitude	144.935077
Tree Identifier	307
Botanic Name	*Acacia sp.*
Common Name	Wattle
Tree Height (m)	7
DSH (1.4m)	0.2
DAB	0.25
Tree Health	Good
Tree Structure	Fair
ULE	10-20 years
Comments	
Retention Value	Low
NRZ	2.4
SRZ	1.85

Photos



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Aurora Tree Assessment

Arboricultural Assessment Checklist | 308

Latitude	-37.569468
Longitude	144.936748
Tree Identifier	308
Botanic Name	*Brachychiton populneus*
Common Name	Kurrajong
Tree Height (m)	3
DSH (1.4m)	0.06
DAB	0.14
Tree Health	Good
Tree Structure	Good
ULE	20+ years
Comments	
Retention Value	Moderately Significant
NRZ	2
SRZ	1.5

Photos



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Aurora Tree Assessment

Arboricultural Assessment Checklist | 309

Latitude	-37.569375
Longitude	144.936487
Tree Identifier	309
Botanic Name	*Eucalyptus leucoxylon*
Common Name	Yellow Gum
Tree Height (m)	5
DSH (1.4m)	0.15
DAB	0.2
Tree Health	Good
Tree Structure	Good
ULE	20+ years
Comments	
Retention Value	None
NRZ	2
SRZ	1.68

Photos



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Aurora Tree Assessment

Arboricultural Assessment Checklist | 310

Latitude	-37.570481
Longitude	144.942764
Tree Identifier	310
Botanic Name	*Eucalyptus leucoxylon*
Common Name	Yellow gum
Tree Height (m)	
DSH (1.4m)	
DAB	
Tree Health	
Tree Structure	
ULE	
Comments	Grove of planted Yellow Gums. Apply 5m buffer around edge of drip zone
Retention Value	
NRZ	
SRZ	

Photos



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Aurora Tree Assessment

Arboricultural Assessment Checklist | 311

Latitude	-37.545054
Longitude	144.968707
Tree Identifier	311
Botanic Name	*Ulmus minor*
Common Name	Field Elm
Tree Height (m)	7
DSH (1.4m)	0.5
DAB	0.55
Tree Health	Good
Tree Structure	Good
ULE	10-20 years
Comments	with suckering roots
Retention Value	None
NRZ	6
SRZ	2.57

Photos



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Aurora Tree Assessment

Arboricultural Assessment Checklist | 312

Latitude	-37.544902
Longitude	144.968794
Tree Identifier	312
Botanic Name	*Ulmus minor*
Common Name	Field Elm
Tree Height (m)	15
DSH (1.4m)	0.5
DAB	0.6
Tree Health	Good
Tree Structure	Fair
ULE	20+ years
Comments	With surrounding suckering growth. In rail Corridor
Retention Value	Moderately Significant
NRZ	6
SRZ	2.67

Photos



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Aurora Tree Assessment

Arboricultural Assessment Checklist | 313

Latitude	-37.54507
Longitude	144.968698
Tree Identifier	313
Botanic Name	*Ulmus minor*
Common Name	Field Elm
Tree Height (m)	7
DSH (1.4m)	0.5
DAB	0.55
Tree Health	Good
Tree Structure	Good
ULE	10-20 years
Comments	with suckering roots
Retention Value	None
NRZ	6
SRZ	2.57

Photos



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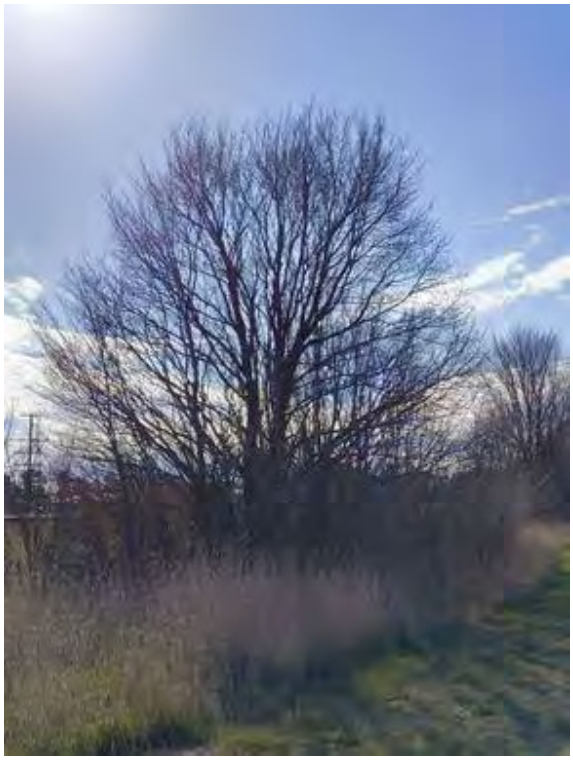
Latitude	-37.545335
Longitude	144.968552
Tree Identifier	314
Botanic Name	*Ulmus minor*
Common Name	Field Elm
Tree Height (m)	7
DSH (1.4m)	0.5
DAB	0.55
Tree Health	Good
Tree Structure	Good
ULE	10-20 years
Comments	with suckering roots
Retention Value	None
NRZ	6
SRZ	2.57

Photos



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Aurora Tree Assessment

Arboricultural Assessment Checklist | 315

Latitude	-37.594249
Longitude	144.94685
Tree Identifier	315
Botanic Name	*Prunus cerasifera*
Common Name	Black Cherry
Tree Height (m)	3
DSH (1.4m)	0.1
DAB	0.12
Tree Health	Good
Tree Structure	Good
ULE	10-20 years
Comments	
Retention Value	None
NRZ	2
SRZ	1.5

Photos



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Latitude	-37.594588
Longitude	144.946723
Tree Identifier	316
Botanic Name	*Acacia melanoxylon*
Common Name	Blackwood
Tree Height (m)	6
DSH (1.4m)	0.21
DAB	0.22
Tree Health	Good
Tree Structure	Good
ULE	10-20 years
Comments	In rail corridor
Retention Value	Moderately Significant
NRZ	2.52
SRZ	1.75

Photos



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Aurora Tree Assessment

Arboricultural Assessment Checklist | 317

Latitude	-37.594261
Longitude	144.946848
Tree Identifier	317
Botanic Name	*Prunus cerasifera*
Common Name	Black Cherry
Tree Height (m)	4
DSH (1.4m)	0.18
DAB	0.2
Tree Health	Good
Tree Structure	Good
ULE	10-20 years
Comments	
Retention Value	None
NRZ	2.16
SRZ	1.68

Photos



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Aurora Tree Assessment

Arboricultural Assessment Checklist | 318

Latitude	-37.594572
Longitude	144.946731
Tree Identifier	318
Botanic Name	*Acacia melanoxylon*
Common Name	Blackwood
Tree Height (m)	4
DSH (1.4m)	0.14
DAB	0.18
Tree Health	Good
Tree Structure	Good
ULE	10-20 years
Comments	
Retention Value	Moderately Significant
NRZ	2
SRZ	1.61

Photos



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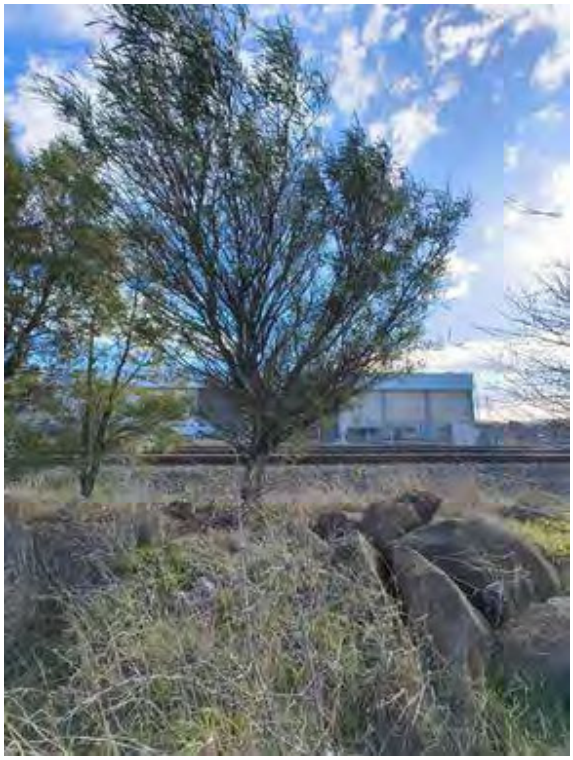
Aurora Tree Assessment

Arboricultural Assessment Checklist | 319

Latitude	-37.594282
Longitude	144.946829
Tree Identifier	319
Botanic Name	*Acacia melanoxylon*
Common Name	Blackwood
Tree Height (m)	5
DSH (1.4m)	0.2
DAB	0.25
Tree Health	Good
Tree Structure	Good
ULE	10-20 years
Comments	
Retention Value	None
NRZ	2.4
SRZ	1.85

Photos



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Aurora Tree Assessment

Arboricultural Assessment Checklist | 320

Latitude	-37.594311
Longitude	144.946813
Tree Identifier	320
Botanic Name	*Acacia melanoxylon*
Common Name	Blackwood
Tree Height (m)	5
DSH (1.4m)	0.2
DAB	0.25
Tree Health	Good
Tree Structure	Good
ULE	10-20 years
Comments	
Retention Value	None
NRZ	2.4
SRZ	1.85

Photos



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Aurora Tree Assessment

Arboricultural Assessment Checklist | 321

Latitude	-37.594524
Longitude	144.946749
Tree Identifier	321
Botanic Name	*Acacia melanoxylon*
Common Name	Blackwood
Tree Height (m)	7
DSH (1.4m)	0.22
DAB	0.25
Tree Health	Good
Tree Structure	Good
ULE	10-20 years
Comments	In rail Corridor
Retention Value	Moderately Significant
NRZ	2.64
SRZ	1.85

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Aurora Tree Assessment

Arboricultural Assessment Checklist | 322

Latitude	-37.594302
Longitude	144.946825
Tree Identifier	322
Botanic Name	*Acacia melanoxylon*
Common Name	Blackwood
Tree Height (m)	3
DSH (1.4m)	0.14
DAB	0.15
Tree Health	Good
Tree Structure	Good
ULE	10-20 years
Comments	
Retention Value	None
NRZ	2
SRZ	1.5

Photos



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Latitude	-37.5945
Longitude	144.946756
Tree Identifier	323
Botanic Name	*Acacia melanoxylon*
Common Name	Blackwood
Tree Height (m)	6
DSH (1.4m)	0.15
DAB	0.2
Tree Health	Good
Tree Structure	Good
ULE	10-20 years
Comments	In rail corridor
Retention Value	Moderately Significant
NRZ	2
SRZ	1.68

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Latitude	-37.594473
Longitude	144.946765
Tree Identifier	324
Botanic Name	*Acacia melanoxylon*
Common Name	Blackwood
Tree Height (m)	6
DSH (1.4m)	0.19
DAB	0.25
Tree Health	Good
Tree Structure	Good
ULE	10-20 years
Comments	In rail corridor
Retention Value	Moderately Significant
NRZ	2.28
SRZ	1.85

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Latitude	-37.571852
Longitude	144.954158
Tree Identifier	327
Botanic Name	*Eucalyptus camaldulensis*
Common Name	River red gum
Tree Height (m)	3
DSH (1.4m)	0.05
DAB	0.08
Tree Health	Good
Tree Structure	Good
ULE	20+ years
Comments	
Retention Value	Low
NRZ	2
SRZ	1.5

Photos



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Aurora Tree Assessment

Arboricultural Assessment Checklist | 328

Latitude	-37.571877
Longitude	144.954155
Tree Identifier	328
Botanic Name	*Eucalyptus camaldulensis*
Common Name	River red gum
Tree Height (m)	3
DSH (1.4m)	0.05
DAB	0.08
Tree Health	Good
Tree Structure	Good
ULE	20+ years
Comments	
Retention Value	Low
NRZ	2
SRZ	1.5

Photos



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Latitude	-37.571861
Longitude	144.954193
Tree Identifier	329
Botanic Name	*Eucalyptus camaldulensis*
Common Name	River red gum
Tree Height (m)	3
DSH (1.4m)	0.05
DAB	0.08
Tree Health	Good
Tree Structure	Good
ULE	20+ years
Comments	
Retention Value	Low
NRZ	2
SRZ	1.5

Photos



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Aurora Tree Assessment

Arboricultural Assessment Checklist | 330

Latitude	-37.571861
Longitude	144.954236
Tree Identifier	330
Botanic Name	*Eucalyptus camaldulensis*
Common Name	River red gum
Tree Height (m)	3
DSH (1.4m)	0.05
DAB	0.08
Tree Health	Good
Tree Structure	Good
ULE	20+ years
Comments	
Retention Value	Low
NRZ	2
SRZ	1.5

Photos



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Aurora Tree Assessment

Arboricultural Assessment Checklist | 331

Latitude	-37.571865
Longitude	144.954213
Tree Identifier	331
Botanic Name	*Eucalyptus camaldulensis*
Common Name	River red gum
Tree Height (m)	3
DSH (1.4m)	0.05
DAB	0.08
Tree Health	Good
Tree Structure	Good
ULE	20+ years
Comments	
Retention Value	Low
NRZ	2
SRZ	1.5

Photos



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Aurora Tree Assessment

Arboricultural Assessment Checklist | 332

Latitude	-37.571847
Longitude	144.954217
Tree Identifier	332
Botanic Name	*Eucalyptus camaldulensis*
Common Name	River red gum
Tree Height (m)	3
DSH (1.4m)	0.05
DAB	0.08
Tree Health	Good
Tree Structure	Good
ULE	20+ years
Comments	
Retention Value	Low
NRZ	2
SRZ	1.5

Photos



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Aurora Tree Assessment

Arboricultural Assessment Checklist | 333

Latitude	-37.571793
Longitude	144.953997
Tree Identifier	333
Botanic Name	*Eucalyptus camaldulensis*
Common Name	River Red Gum
Tree Height (m)	3
DSH (1.4m)	0.2
DAB	0.15
Tree Health	Good
Tree Structure	Good
ULE	20+ years
Comments	
Retention Value	None
NRZ	2.4
SRZ	1.5

Photos



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Aurora Tree Assessment

Arboricultural Assessment Checklist | 334

Latitude	-37.571779
Longitude	144.95408
Tree Identifier	334
Botanic Name	*Eucalyptus camaldulensis*
Common Name	River Red Gum
Tree Height (m)	3
DSH (1.4m)	0.2
DAB	0.15
Tree Health	Good
Tree Structure	Good
ULE	20+ years
Comments	
Retention Value	None
NRZ	2.4
SRZ	1.5

Photos



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Aurora Tree Assessment

Arboricultural Assessment Checklist | 335

Latitude	-37.571783
Longitude	144.954059
Tree Identifier	335
Botanic Name	*Eucalyptus camaldulensis*
Common Name	River Red Gum
Tree Height (m)	3
DSH (1.4m)	0.2
DAB	0.15
Tree Health	Good
Tree Structure	Good
ULE	20+ years
Comments	
Retention Value	None
NRZ	2.4
SRZ	1.5

Photos



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Aurora Tree Assessment

Arboricultural Assessment Checklist | 336

Latitude	-37.571791
Longitude	144.954033
Tree Identifier	336
Botanic Name	*Eucalyptus camaldulensis*
Common Name	River Red Gum
Tree Height (m)	3
DSH (1.4m)	0.2
DAB	0.15
Tree Health	Good
Tree Structure	Good
ULE	20+ years
Comments	
Retention Value	None
NRZ	2.4
SRZ	1.5

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Aurora Tree Assessment

Arboricultural Assessment Checklist | 337

Latitude	-37.571766
Longitude	144.954027
Tree Identifier	337
Botanic Name	*Eucalyptus camaldulensis*
Common Name	River Red Gum
Tree Height (m)	3
DSH (1.4m)	0.2
DAB	0.15
Tree Health	Good
Tree Structure	Good
ULE	20+ years
Comments	
Retention Value	None
NRZ	2.4
SRZ	1.5

Photos



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Aurora Tree Assessment

Arboricultural Assessment Checklist | 338

Latitude	-37.571782
Longitude	144.954021
Tree Identifier	338
Botanic Name	*Eucalyptus camaldulensis*
Common Name	River Red Gum
Tree Height (m)	3
DSH (1.4m)	0.2
DAB	0.15
Tree Health	Good
Tree Structure	Good
ULE	20+ years
Comments	
Retention Value	None
NRZ	2.4
SRZ	1.5

Photos



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Aurora Tree Assessment

Arboricultural Assessment Checklist | 339

Latitude	-37.571776
Longitude	144.954044
Tree Identifier	339
Botanic Name	*Eucalyptus camaldulensis*
Common Name	River Red Gum
Tree Height (m)	3
DSH (1.4m)	0.2
DAB	0.15
Tree Health	Good
Tree Structure	Good
ULE	20+ years
Comments	
Retention Value	None
NRZ	2.4
SRZ	1.5

Photos



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Appendix I: Available native vegetation credits

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Report of available native vegetation credits

This report lists native vegetation credits available to purchase through the Native Vegetation Credit Register.

This report is **not evidence** that an offset has been secured. An offset is only secured when the units have been purchased and allocated to a permit or other approval and an allocated credit extract is provided by the Native Vegetation Credit Register.

Date and time: 08/12/2025 04:49 **Report ID: 33237**

What was searched for?

General offset

General habitat units	Strategic biodiversity value	Large trees	Vicinity (Catchment Management Authority or Municipal district)	
0.25	0.473	0	CMA	Melbourne Water
			or LGA	Hume City

Details of available native vegetation credits on 08 December 2025 04:49

These sites meet your requirements for general offsets.

Credit Site ID	GHU	LT	CMA	LGA	Land owner	Trader	Fixed price	Broker(s)
BBA-0277	1.499	439	Melbourne Water	Mornington Peninsula Shire	No	Yes	No	Abezco, Ethos, VegLink
BBA-0670	13.399	70	Melbourne Water	Cardinia Shire	No	Yes	No	Abezco, VegLink
BBA-0677	2.941	1315	Melbourne Water	Whittlesea City	No	Yes	No	Abezco, VegLink
BBA-0678	25.989	2392	Melbourne Water	Nillumbik Shire	No	Yes	No	Abezco, VegLink
BBA-0678_02	0.562	58	Melbourne Water	Nillumbik Shire	No	Yes	No	Abezco, VegLink
BBA-2870	2.482	429	Melbourne Water	Yarra Ranges Shire	Yes	Yes	No	VegLink
BBA-2871	12.731	1573	Melbourne Water	Yarra Ranges Shire	Yes	Yes	No	VegLink
VC_CFL-3682_01	1.834	0	Melbourne Water	Nillumbik Shire	Yes	Yes	No	Abezco
VC_CFL-3710_01	6.236	322	Melbourne Water	Yarra Ranges Shire	Yes	Yes	No	VegLink
VC_CFL-3744_01	1.078	347	Melbourne Water	Macedon Ranges Shire	Yes	Yes	No	VegLink
VC_CFL-3764_01	1.083	0	Melbourne Water	Yarra Ranges Shire	Yes	Yes	No	VegLink
VC_CFL-3764_01	1.083	0	Melbourne Water	Yarra Ranges Shire	Yes	Yes	Yes	VegLink

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VC_CFL-3805_01	3.289	802	Melbourne Water	Yarra Ranges Shire	Yes	Yes	No	VegLink
VC_CFL-3806_01	3.743	141	Melbourne Water	YARRA RANGES SHIRE	Yes	Yes	No	Yarra Ranges SC

These sites meet your requirements using alternative arrangements for general offsets.

Credit Site ID	GHU	LT	CMA	LGA	Land owner	Trader	Fixed price	Broker(s)

There are no sites listed in the Native Vegetation Credit Register that meet your offset requirements when applying the alternative arrangements as listed in section 11.2 of the Guidelines for the removal, destruction or lopping of native vegetation.

These potential sites are not yet available, land owners may finalise them once a buyer is confirmed.

Credit Site ID	GHU	LT	CMA	LGA	Land owner	Trader	Fixed price	Broker(s)
VC_CFL-3746_01	4.962	563	Melbourne Water	Macedon Ranges Shire	Yes	Yes	No	VegLink
VC_CFL-3792_01	14.025	1235	Melbourne Water	Macedon Ranges Shire	Yes	Yes	No	VegLink
VC_CFL-3816_01	10.827	596	Melbourne Water	Yarra Ranges Shire	Yes	Yes	No	Contact NVOR

LT - Large Trees *CMA - Catchment Management Authority* *LGA - Municipal District or Local Government Authority*

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Next steps

If applying for approval to remove native vegetation
Attach this report to an application to remove native vegetation as evidence that your offset requirement is currently available.

If you have approval to remove native vegetation
Below are the contact details for all brokers. Contact the broker(s) listed for the credit site(s) that meet your offset requirements. These are shown in the above tables. If more than one broker or site is listed, you should get more than one quote before deciding which offset to secure.

Broker contact details

Broker Abbreviation	Broker Name	Phone	Email	Website
	Fully traded			
Abezco	Abzeco Pty. Ltd.	(03) 9431 5444	offsets@abzeco.com.au	www.abzeco.com.au
Baw Baw SC	Baw Baw Shire Council	(03) 5624 2411	bawbaw@bawbawshire.vic.gov.au	www.bawbawshire.vic.gov.au
Bio Offsets	Biodiversity Offsets Victoria	0452 161 013	info@offsetsvictoria.com.au	www.offsetsvictoria.com.au
Contact NVOR	Native Vegetation Offset Register	136 186	nativevegetation.offsetregister@deeca.vic.gov.au	www.environment.vic.gov.au/native-vegetation
Ecocentric	Ecocentric Environmental Consulting	0410 564 139	ecocentric@me.com	Not avaliable
Ethos	Ethos NRM Pty Ltd	(03) 5153 0037	offsets@ethosnrm.com.au	www.ethosnrm.com.au
IDES	ID Ecological Management	(03) 9437 0555		www.idecological.com.au
Nillumbik SC	Nillumbik Shire Council	(03) 9433 3316	offsets@nillumbik.vic.gov.au	www.nillumbik.vic.gov.au
TFN	Trust for Nature	8631 5888	offsets@tfn.org.au	www.trustfornature.org.au
VegLink	Vegetation Link Pty Ltd	(03) 8578 4250 or 1300 834 546	offsets@vegetationlink.com.au	www.vegetationlink.com.au
Yarra Ranges SC	Yarra Ranges Shire Council	1300 368 333	biodiversityoffsets@yarraranges.vic.gov.au	www.yarraranges.vic.gov.au

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For more information contact the DEECA Customer Service Centre 136 186 or the Native Vegetation Credit Register at nativevegetation.offsetregister@delwp.vic.gov.au

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Obtaining this publication does not guarantee that the credits shown will be available in the Native Vegetation Credit Register either now or at a later time when a purchase of native vegetation credits is planned.

Notwithstanding anything else contained in this publication, you must ensure that you comply with all relevant laws, legislation, awards or orders and that you obtain and comply with all permits, approvals and the like that affect, are applicable or are necessary to undertake any action to remove, lop or destroy or otherwise deal with any native vegetation or that apply to matters within the scope of Clauses 52.16 or 52.17 of the Victoria Planning Provisions and Victorian planning schemes

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