

Land Capability Assessment

Derrimut Fields Precinct
Structure Plan (PSP)

Client

Victoria's Department of
Transport and Planning
(DTP)/Victoria Planning
Authority (VPA)

Issued

3/09/2026



Melbourne Office
1 Glenferrie Road
PO Box 61
Malvern VIC 3144
Tel: (03) 9524 8888

beveridgewilliams.com.au

BW
Beveridge Williams

Client: Victoria's Department of Transport and Planning (DTP)/Victoria Planning Authority (VPA)

Issued: 3/09/2026

Version: 0-Rev1

Prepared by: L.Tripp/A.Hayes

Checked by: A. Hayes

Project Number: 2600398

Surveying

Asset Recording

Civil Engineering

Infrastructure Engineering

Traffic & Transport Engineering

Environmental Consulting

Water Resource Engineering

Strata Certification (NSW)

Town Planning

Urban Design

Landscape Architecture

Project Management

Revision Table

REV	DESCRIPTION	DATE	AUTHORISED
A	Land Capability Assessment - Derrimut Fields Precinct Structure Plan (PSP)	10/06/2026	A.Hayes
0	Land Capability Assessment - Derrimut Fields Precinct Structure Plan (PSP)	21/08/2026	A.Hayes
0-rev1	Land Capability Assessment - Derrimut Fields Precinct Structure Plan (PSP)	3/09/2026	A.Hayes

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List of Abbreviations and Units

ACM	Asbestos Containing Material	PCB	Polychlorinated biphenyl
ANZECC	Australia and New Zealand Environment and Conservation Council	PID	Photo-ionisation detector
ARMCANZ	Agriculture and Resource Management Council of Australia and New Zealand	PSH	Phase Separated Hydrocarbons
AST	Above-ground Storage Tank	QA/QC	Quality Assurance/Quality Control
BaP	Benzo(a)pyrene	RL	Reduced Level
BTEX	Benzene, Toluene, Ethyl benzene & Xylene	RPD	Relative Percentage Difference
CHC	Chlorinated hydrocarbons	SEPP	State Environment Protection Policy
COC	Chain of Custody	SVOC	Semi Volatile Organic Compounds
CUTEP	Clean Up to the Extent Practicable	SWL	Standing Water Level
DNAPL	Dense Non-Aqueous Phase Liquid	TDS	Total Dissolved Solids
DO	Dissolved Oxygen	TEQ	Toxicity Equivalent Quotient
EC	Electrical Conductivity	TPH	Total Petroleum Hydrocarbons
EIL	Environmental Investigation Level	TRH	Total Recoverable Hydrocarbons
EPA	Victorian Environmental Protection Authority	UST	Underground Storage Tank
GWDB	Groundwater Data Base	VOC	Volatile Organic Compounds
HIL	Health Investigation Level	VVG	Visualising Victoria's Groundwater
HM	Heavy Metal	-	No data in tables
HVO	Halogenated Volatile Organics	Units	
LNAPL	Light Non-Aqueous Phase Liquid	µg/kg	micrograms per kilogram (ppb)
LOR	Limit of Reporting	µg/L	micrograms per litre
MAH	Monocyclic Aromatic Hydrocarbons	µs/cm	microsiemens per centimetre
NATA	National Association of Testing Authorities	mg/kg	milligrams per kilogram (ppm)
ND	Non Detect	mg/L	milligrams per litre
NEPM	National Environmental Protection Measure	mBGL	Metres below ground level
NHMRC	National Health and Medical Research Council	mTOC	Metres below top of casing
NAPL	Non-Aqueous Phase Liquid	mAHD	Metres Australian Height Datum
OCP	Organochlorine Pesticides	ppb	parts per billion
OPP	Organophosphate Pesticides	ppm	parts per million
PAH	Polycyclic Aromatic Hydrocarbons	Ha	Hectare

EXECUTIVE SUMMARY

This report presents a high-level Land Capability Assessment prepared by Beveridge Williams for Victoria's Department of Transport and Planning (DTP) for the Derrimut Fields Precinct Structure Plan (PSP) area in Truganina, Victoria. The assessment considers current site conditions, planning and environmental constraints, contamination risk, geotechnical conditions, and hydrological and hydrogeological factors relevant to future precinct planning and development.

The assessment was based on a desktop review and site inspection. Information sources included planning property reports, historical aerial photographs, certificates of title, EPA audit and priority site records, landfill register information, geological and soil mapping, hydrogeological datasets, topographic information, climate data, and a May 2026 site inspection of the PSP area.

- planning overlays, land use interfaces and development constraints across the precinct;
- potential onsite and offsite contamination risks relevant to future land use change;
- geotechnical considerations including sodic/dispersive soils, erosion risk and indicative soil reactivity; and
- hydrological and hydrogeological factors including flood-related constraints, groundwater conditions and adjacent landfill influences.

1.1 Methodology

A desktop review was undertaken to establish current and historical land uses and identify key land capability constraints across the PSP area. The assessment included the following:

The scope included a high-level review of historical and environmental information relevant to contamination, geotechnical and development constraints, supported by a preliminary site inspection.

- Planning information (zoning and overlay details).
- Historical Aerial photographs
- Geotechnical, geomorphological, and geological information (geological maps, topographic maps, soil classification information, acid sulfate soils map, sodic/dispersive soils).
- Hydrological and hydrogeological information.
- Review of EPA Victoria for records (Priority Sites Register, EPA Licensed Sites, environmental audit reports, landfills, Groundwater Quality Restricted Use Zones and landfills, environmental audit overlay areas).
- EnergySafe Victoria Cathodic Protection Search.
- Current and historical titles.
- Current and historical aerial photos.
- Historical business directories.
- Heritage information.
- A preliminary site inspection to identify general landforms and potential soil issues.
- Application of a Risk Rating for identified site activities/conditions to each parcel based on the highest risk rating.

1.2 Current Site Details

The Derrimut Fields PSP area comprises 11 properties in Truganina across land currently zoned Urban Growth Zone and Farming Zone, with localised Urban Floodway Zone and Public Park and Recreation Zone areas associated with the Skeleton Creek corridor. Key constraints include Environmental Significance, Land Subject to Inundation, Significant Landscape, Public Acquisition, Design and Development and Heritage overlays, together with areas of Aboriginal cultural heritage sensitivity and a precinct-wide bushfire-prone designation.

The overlay pattern indicates that land associated with the Skeleton Creek corridor has the highest environmental and flood-related constraint, while other parts of the precinct are more developable subject to contamination, geotechnical and infrastructure considerations.

1.3 Surrounding Land Use

The broader locality is transitional and includes rural, urban growth, industrial and waste management land uses. Of particular relevance are the active landfill, recycling, asphalt plant and associated industrial activities immediately north of the PSP, industrial and warehousing land to the east, and ongoing urban development to the south and west.

1.4 Desktop Review and Site Inspection

Desktop review and site inspection findings indicate that the precinct has been used predominantly for agriculture; however, several parcels contain or have historically contained features with elevated contamination potential. These include former shearing and stock handling infrastructure, drenching areas, a retired above-ground fuel tank, collapsed rural structures with possible asbestos-containing materials, agricultural chemical storage, stockpiling and hardstand areas, localised waste disposal or burn-off areas, and possible offsite impacts associated with the adjacent landfill and waste management activities to the north.

1.5 Geotechnical Review

The precinct is underlain by Newer Volcanics basalt with localised alluvial influences associated with Skeleton Creek. Landslide risk is considered low at a precinct scale due to the generally flat landform, although localised erosion and instability may occur near Skeleton Creek and drainage lines.

1.6 Acid Sulfate and Sodic Soils

At a precinct scale, the Derrimut Fields PSP area and surrounding land are mapped as having an extremely low probability of acid sulfate soil occurrence. Acid sulfate soils are therefore not considered to represent a key land capability constraint at the PSP stage. In contrast, the precinct presents a potential to moderate risk of sodic and dispersive soils, particularly in lower-lying and alluvial areas adjacent to Skeleton Creek, where basalt-derived clay soils may also exhibit moderate to high reactivity. These conditions are not considered to preclude development, but they should be confirmed through targeted geotechnical investigation and laboratory testing during subsequent development stages to inform earthworks, erosion management and foundation design.

1.7 Contamination Risks

Contamination risk across the PSP is variable. Open paddock areas with no identified potentially contaminating activities are considered unlikely to be potentially contaminated at this stage. Other parts of the precinct are assessed as medium to high risk depending on the nature of the identified source areas. The highest-risk parcel is the western part of 848-950 Boundary Road, where former stockyards, shearing and drenching infrastructure, fuel storage, potential asbestos-containing building materials and accumulated wastes were observed while medium-risk areas include land potentially affected by adjacent landfill and waste management activities and localised areas of stockpiling or fill areas, burn-off areas and waste dumping.

Broader agricultural land, localised farm infrastructure, agricultural chemical storage, are considered to be ancillary activities and on a precinct level these parcels are considered unlikely to be potentially contaminated.

1.8 Conclusion

In summary, the Derrimut Fields PSP is generally capable of future development, but planning will need to account for environmental corridor and floodplain constraints associated with Skeleton Creek, contamination risks affecting selected parcels and the northern landfill interface, geotechnical uncertainties associated with sodic or dispersive soils, erosion-prone areas and variable shallow groundwater conditions, and adverse amenity impacts associated with the northern landfill, waste management, asphalt plant and surrounding industrial interfaces. The report supports a staged investigation approach in accordance with Planning Practice Note 30 and Ministerial Direction No. 1.

1.9 Recommendations

Key recommendations from this assessment are summarised below:

- undertake parcel-specific contamination investigations in accordance with Planning Practice Note 30, including PSI, PRSA and/or environmental audit pathways depending on the proposed land use and identified risk level, as summarised in Table 1-1 and Table 8-2 (Section 8 of this report);
- complete targeted geotechnical investigations across representative developable areas and higher-risk landforms, with testing for dispersivity, sodicity, reactivity, soil aggressivity and related engineering parameters;

- consider flood, drainage and environmental corridor constraints associated with Skeleton Creek in future precinct layout and staging; and
- consider parcel-specific adverse amenity constraints associated with the northern landfill, waste management, asphalt plant and broader industrial interfaces during precinct layout and staging, particularly for sensitive land uses, and confirm any detailed buffer, landfill gas, odour, dust and noise assessment requirements for higher-risk interface land.

Table 1-1 - Recommended Parcel-Specific Contamination Investigations

PARCEL ID/PROPERTY	RISK RATING ¹	KEY SOURCE(S) ²		RECOMMENDED INVESTIGATION LEVEL
		ONSITE	OFFSITE	
1 – 744 Boundary Road	Considered Unlikely to be Potentially Contaminated	Other Activities: Agricultural land use with minor farm infrastructure; potential localised pesticide/herbicide use, nutrient application, farm waste or disturbed ground.		PSI with limited targeted soil sampling for metals, nutrients, pesticides/herbicides and hydrocarbons in areas of disturbance or farm infrastructure.
2 – 848-950 Boundary Road (east)	Considered Unlikely to be Potentially Contaminated	Other Activities: Agricultural land use with disturbed/gravelled access areas and potential minor isolated imported fill or surface disturbance.		PSI with targeted sampling where surface disturbance or imported material is suspected.
3 – 848-950 Boundary Road (west)	High	High: Former stockyards/shearing and animal handling infrastructure, potential drenching area/stock dipping sites Medium: Above-ground fuel storage Possible asbestos-containing materials, waste storage/disposal and disturbed/fill-affected ground.	Other Activities: Agricultural land use with disturbed/gravelled access areas and potential imported fill or surface disturbance.	Detailed PSI and PRSA with intrusive investigation targeted to suspect areas; analyse for metals, TPH/TRH/BTEX, PAHs, nutrients, pesticides and asbestos; consider groundwater assessment and assume Environmental Audit for sensitive uses.

¹ Considered Unlikely to be Potentially Contaminated: For sites that are classified as 'Not Potentially Contaminated' there is no recommended action under PPN30 and the normal General Environmental Duty (GED) under the Environment Protection Act 2017 applies. Where sensitive uses are proposed, as part of a planning scheme amendment and/or planning permit application, a Preliminary Site Investigation with some limited intrusive assessment, if considered appropriate, can confirm the contamination status of the land.

² Sources based on risk rating in reference to Planning Note 30 Table 2.

PARCEL ID/PROPERTY	RISK RATING ¹	KEY SOURCE(S) ²		RECOMMENDED INVESTIGATION LEVEL
		ONSITE	OFFSITE	
4 – 345 Middle Road	Medium	Other Activities: Agricultural land use with disturbed areas and potential imported fill or surface disturbance.	Medium Risk: Potential offsite contamination/amenity influence from the northern landfill and waste-management interface.	PSI with targeted test pits and soil sampling near the shed, stockpiles, hardstand and disturbed ground; include metals, hydrocarbons, PAHs and asbestos in fill-affected areas.
5– 345 Middle Road	Considered Unlikely to be Potentially Contaminated	Other Activities: Agricultural land use with farm shed, hardstand/stockpiling, disturbed ground and potential imported fill; possible localised storage of chemicals, fuels or wastes associated with farm operations.		PSI with targeted assessment of former stock loading, farm infrastructure and historically disturbed areas
6, 7 and 8 – Christies Road parcels	Medium	Other Activities: Agricultural land use with disturbed areas and potential imported fill or surface disturbance.	Medium Risk: Potential offsite contamination/amenity influence from the northern landfill and waste-management interface.	PSI to confirm general site conditions, with later-stage consideration of landfill gas risk and/or groundwater assessment for land closest to the northern interface, particularly if sensitive uses are proposed. If risks are confirmed, recommendations are to be made with regard to the suitable level of assessment required (PRSA/Audit)
9 – 1004-1054 Christies Road (part)	Considered Unlikely to be Potentially Contaminated	Other Activities: Agricultural chemical storage area and surrounding agricultural land; potential pesticide/herbicide storage/use, nutrient application and minor hydrocarbon sources.		PSI targeted to the fenced storage area with soil sampling for pesticides/herbicides, metals, nutrients and hydrocarbons. See Photograph 21: Site Walkover – Parcel 9 (W) shown in Appendix D.
10 – 619-653 Hopkins Road	Considered Unlikely to be Potentially Contaminated	Other Activities: Grazing/agricultural land use with stock handling infrastructure (loading ramp) and possible former aerated-waters/manufacturing-related activity (unconfirmed onsite activity); potential isolated chemical, fuel, waste, fill or disturbed-ground sources.	Other Activities: Agricultural chemical storage area and surrounding agricultural land; potential pesticide/herbicide storage/use, nutrient application and minor hydrocarbon sources.	PSI with targeted assessment of former stock loading, farm infrastructure and historically disturbed areas; consider further targeted assessment if a former aerated waters-related footprint is identified.

PARCEL ID/PROPERTY	RISK RATING ¹	KEY SOURCE(S) ²		RECOMMENDED INVESTIGATION LEVEL
		ONSITE	OFFSITE	
11 – 690-810 Hopkins Road	Medium	Medium: burn-off area, waste storage/disposal, stockpiles, possible fill/work areas and disturbed ground; Other Activities: Sheds/storage compounds, horse agistment, potential asbestos, metals, hydrocarbons, PAHs, nutrients and pesticides.	Other Activities: Agricultural land use with disturbed areas and potential imported fill or surface disturbance.	Detailed PSI and PRSA with targeted intrusive investigation around sheds/storage compounds, stockpiles, burn-off areas, waste storage/disposal areas, horse agistment areas, possible fill/work areas and disturbed ground. Analyse for metals, hydrocarbons, PAHs, asbestos, nutrients and pesticides; consider groundwater and/or surface water assessment where hydraulic connectivity to Skeleton Creek is relevant.

1 INTRODUCTION

At the request of Victoria's Department of Transport and Planning (DTP), Beveridge Williams & Co P/L (Beveridge Williams) has conducted a Land Capability Assessment within the Derrimut Fields Precinct Structure Plan (PSP) area.

The purpose of the Land Capability Assessment was to assess site conditions within the PSP area and provide high-level advice with regard to potential development constraints, if any, and recommendations for additional physical investigations needed to confirm the findings of the desktop investigation detailed in this report.

This report presents information from desktop resources, an evaluation of collated desktop information with respect to beneficial uses of the PSP area and recommendations for further assessment prior to development.

2 SCOPE OF WORK

The Land Capability Assessment includes the following:

- A high-level review of available historical data to assess contamination risk, including maps, reports, borehole data and historical aerial photographs.
- A preliminary site inspection from the site boundaries to identify general landforms and areas of potential sodic soils, salinity or acid sulfate soils.

2.1 Assessment Guidelines and Criteria

This report is based on the Planning Practice Note 30 for Potentially Contaminated Land (July 2021), issued by the Department of Environment, Land, Water and Planning (DELWP) now Department of Transport and Planning (DTP). The note provides comprehensive guidance on the identification, assessment, and planning actions for potentially contaminated land as per the Planning and Environment Act 1987, Environmental Duties under the Environmental Protection Act (2017) and Ministerial Direction No. 1 – Potentially Contaminated Land (Direction No. 1).

Final risk ratings for each parcel are based on the highest risk activity identified on each parcel.

The guidelines specify three levels of assessment, determined by proposed future land uses and known prior land uses.

Table 2-1: Recommended Approach to Assessing Potentially Contaminated Land³

PROPOSED LAND USE		POTENTIAL FOR CONTAMINATION	
		HIGH	MEDIUM
Uses defined in Ministerial Direction No. 1, the EAO, and clause 13.04-1S			
• Sensitive uses: Residential use, childcare centre, kindergarten, preschool centre, primary school, even if ancillary to another use. • Children's playground • Secondary school	New use, or buildings and works associated with a new use	A	B
	Buildings and works associated with an existing use	B	B
Other land use			
• Open space • Agriculture • Retail or office • Industry or warehouse	New use, or buildings and works associated with a new or existing use	C	D

³ Derived from Table 3: Planning Practice Note 30 for Potentially Contaminated Land (July 2021) (accessed June 2024)

This land capability assessment has broadly been undertaken in accordance with the National Environment Protection (Assessment of Site Contamination) Measure 1999 (ASC NEPM).

In line with PN30 recommended approaches in a Planning Scheme Amendment the following recommendations will be applied to the respective risk ratings:

- A - PRSA or audit option applies, Proceeding directly to an audit is recommended
- B - PRSA or audit option applies, PRSA to determine need for audit is recommended
- C - PSI to inform need for audit is recommended
- D - Planning authority to document consideration of potential for contamination to impact proposal

3 LIMITATIONS

As a high-level assessment, designed to meet the objectives identified in the brief, this study is not a Preliminary Risk Screen Assessment or environmental audit as defined by the Environment Protection Act 2017. This report was based on information from desktop sources and site inspections from publicly accessed road where access was not granted. Consent to access was not provided for all properties.

It is assumed that future urban development will be sewerred. As such, no assessment of the potential for onsite wastewater treatment has been included.

Soil and rock formations are variable. The regional maps are based on borehole, and surface sample logs indicating the approximate subsurface conditions only at the specific test locations. Boundaries between zones on the logs are often not distinct, but rather are transitional and have been interpreted. The precision with which subsurface conditions are indicated depends largely on the frequency and method of sampling, and the uniformity of subsurface conditions.

Chemical conditions described in this report refer only to those conditions indicated by analysis of samples obtained at the points and under the circumstances noted in the report.

These conditions may differ due to the variability of contaminant concentrations in imported fill material or in natural soil as a consequence of activities on the site or adjacent sites. Where conditions encountered at the site or the proposed development differ significantly from those anticipated in this report, it is a condition of this report that Beveridge Williams & Co Pty Ltd be notified of the changes and provided with an opportunity to review the recommendations of this report.

This report has been prepared as per the scope of works agreed between Beveridge Williams & Co Pty Ltd and the VPA which commissioned the report. This report cannot be relied on by any other third party for any purpose except with our prior written consent. The VPA may distribute this report to other parties and in doing so warrants that the report is suitable for the purpose it was intended for. However, any party intending to rely on this report should contact Beveridge Williams to determine the suitability of this report for their specific purpose.

4 CURRENT SITE DETAILS

The Derrimut Fields PSP area is located in Truganina and is comprised of the properties and parcels identified in this assessment.

Site details are presented in Table 4-1.

Table 4-1: List of PSP Properties

PROPERTY IDENTIFIER	PROPERTY ADDRESS	PROPERTY AREA (HECTARES) AND NUMBER OF PARCELS	STANDARD PARCEL IDENTIFIER (SPI)	CURRENT LAND USE (ZONING)
1	744 Boundary Road, Truganina 3029	40.00, 1 parcel	8\PS701122	UGZ - Urban Growth
2	848-950 Boundary Road, Truganina 3029	42.45, 1 of 2 Parts – East	CP165350 (east)	UGZ - Urban Growth
3		44.60, 2 of 2 Parts – West	CP165350 (West)	Mixed UGZ - Urban Growth UFZ - Urban Floodway

PROPERTY IDENTIFIER	PROPERTY ADDRESS	PROPERTY AREA (HECTARES) AND NUMBER OF PARCELS	STANDARD PARCEL IDENTIFIER (SPI)	CURRENT LAND USE (ZONING)
				PPRZ - Public Park and Recreation
4	345 Middle Road, Truganina 3029	85.61 (2 parts)	2~2\PP2516	UGZ - Urban Growth
5			4~2\PP2516	Mixed FZ - Farming UGZ - Urban Growth
6	952-1002 Christies Road, Truganina 3029	85.78, (2 parcels)	1~3\PP2516	Mixed FZ - Farming UGZ - Urban Growth
7			2~3\PP2516	
8	1004-1054 Christies Road, Truganina 3029	82.59 (2 parcel)	3~3\PP2516	UGZ - Urban Growth
9			4~3\PP2516	
10	619-653 Hopkins Road, Truganina 3029	41.28 (1 parcel)	1\PS512498	Mixed UGZ - Urban Growth (west portion) FZ - Farming (East Portion) UFZ - Urban Floodway PPRZ - Public Park and Recreation
11	690-810 Hopkins Road, Truganina 3029	80.33 (1 parcel)	CP165349	Mixed UGZ - Urban Growth FZ - Farming UFZ - Urban Floodway PPRZ - Public Park and Recreation

4.1 Surrounding Land Use

Surrounding land use was reviewed based on VicPlan Planning Property Reports for adjoining and nearby parcels within the Derrimut Fields PSP area, Truganina. The broader locality is peri-urban in character, comprising predominantly Farming Zone (FZ), Rural Conservation Zone (RCZ) and Urban Growth Zone (UGZ) land, reflecting a transition from historical agricultural use to planned urban development within Melbourne's western growth corridor. Localised industrial and transport zoning is also present in the broader vicinity. Relevant surrounding overlays include the ESO, LSIO, SLO and PAO, indicating environmental, flooding/drainage and infrastructure constraints. Several nearby parcels are also located within approximately 500 m of Extractive Industry Work Authorities, indicating existing or historical quarrying activity in the wider locality.

The industrial land uses are noted to be partially developed with recently constructed industrial buildings in which current listed industrial activities included:

Table 4-2: Summary of Nearby Activities and Recommended Separation/Buffer Distances

LAND USE	ADDRESS	DISTANCE FROM PSP AREA (M)	SEPARATION DISTANCE / ACTIVITY APPLIED ⁴
Landfill	North of the PSP along Christies Road / Middle Road, Ravenhall	250	500m (landfill gas) 1500m (noise, dust and odour)
Quarry	Riding Boundary Road, Deer Park VIC 3023	115	Quarry without blasting (500m)
Asphalt plant	North of the PSP within the Christies Road / Middle Road industrial and waste management interface, Ravenhall	1,200	Asphalt plant (>100t/week), 1,000m
Concrete Batching Plant			Production of concrete (100 m)
Datacentre	South of the PSP, opposite Boundary Road	40	NA
Warehousing space	South of the PSP across Boundary Road, and east of the PSP within the adjoining industrial area	160	NA

It is noted that based on the majority of the current industrial activities present in the surrounding area are observed to comprise industries that do not require specific separation distances or required a separation distance greater than the distance to the nearest parcel within the PSP.

5 DESKTOP REVIEW & SITE INSPECTION

The following sources of historical information were reviewed:

- Planning Property Reports
- Aerial photographs held by the Department of Environment, Land, Water and Planning (DEECA) and Nearmap
- List of issued Certificates and Statements of Environmental Audit and EPA Priority Sites Register
- Geology plans
- Hydrogeology plans
- WMIS Database search
- Topography, surface water and drainage plans
- Site inspections

5.1 Planning Reports

A review of VicPlan Planning Property Reports for all subject land parcels indicates a heterogeneous distribution of planning overlays across the precinct. The overlay framework is characterised by:

- A continuous environmental corridor defined by Environmental Significance, Land Subject to Inundation and Significant Landscape overlays
- Linear infrastructure reservations associated with Public Acquisition overlays
- Widespread statutory triggers, including bushfire prone designation and areas of cultural heritage sensitivity

⁴ NA = no applicable separation distance

These overlays are spatially variable and define distinct land capability zones within the precinct.

5.1.1 Environmental and Hydrological Overlays

Environmental and flood-related overlays are concentrated across several parcels, forming a linked constraint corridor through the precinct.

The following properties are subject to Environmental Significance Overlay (ESO2 and ESO5):

- Property 11
- Property 2 and Property 3
- Property 10
- Property 4
- Property 5

These areas are further coincident with:

- Land Subject to Inundation Overlay (LSIO1)
- Significant Landscape Overlay (SLO3)

The co-location of ESO, LSIO and SLO overlays defines a hydrologically influenced corridor, consistent with the mapped Skeleton Creek corridor described in the site overview. Within a precinct-level LCA, this land is considered to have high environmental sensitivity and limited development capacity, and is likely to be retained for drainage, open space or conservation functions.

5.1.2 Infrastructure and Acquisition Constraints

Public Acquisition Overlay (PAO3) is mapped over multiple parcels, including:

- Property 6
- Property 7
- Property 10
- Property 4

PAO land introduces linear constraints on developable area and layout efficiency, requiring integration into subdivision design. At the precinct scale, these overlays define key structural corridors influencing road and servicing networks.

5.1.3 Built Form and Design Controls

Design and Development Overlay (DDO3) applies to:

- Property 7
- Property 9
- Property 1

These overlays impose built form and design requirements rather than physical constraints. Within an LCA context, they represent moderate planning constraints influencing urban design outcomes rather than intrinsic land capability.

5.1.4 Heritage and Cultural Heritage Constraints

5.1.4.1 Heritage Overlay

Heritage Overlay (HO203) affects:

- Property 11
- Property 10
- Property 4
- Property 5

5.1.4.2 Cultural Heritage Sensitivity

Areas of Aboriginal cultural heritage sensitivity are identified across:

- Property 11
- Property 2 and Property 3
- Property 8
- Property 9
- Property 10
- Property 1
- Property 4
- Property 5

These overlays introduce statutory approval triggers, including potential Cultural Heritage Management Plans under defined conditions. At the precinct scale, they represent planning and approvals constraints, which may influence development staging, approvals timing and cost, rather than spatial capability.

5.1.5 Bushfire and Extractive Industry Constraints

All assessed properties (Property 1 to Property 11) are located within a designated bushfire-prone area. While subset of parcels are located within 500 m of extractive industry work authorities, including:

- Property 6
- Property 7
- Property 4
- Property 10

Bushfire-prone designation introduces construction requirements across the entire precinct

Extractive industry buffers introduce potential amenity and permitting constraints, particularly for sensitive land uses (refer Figure 5)

5.1.6 Summary of Planning and Overlay Considerations

Based on overlay distribution, the precinct can be categorised into three overlay-driven capability areas:

Table 5-1: Planning Overlay Constraints

OVERLAY CONSTRAINT LEVEL	PROPERTIES	DRIVERS
High	• Property 11 • Property 2 and Property 3 • Property 10 • Property 4 and Property 5	ESO + LSIO + SLO (± HO/PAO)
Moderate	• Property 6 • Property 7 • Property 9 • Property 1	PAO and/or DDO overlays Limited environmental overlays
Low	• Property 8	No direct overlays affecting the land

5.1.7 Summary

Planning overlays establish a coherent constraints framework that directly informs the PSP layout:

- A central environmental corridor defines the primary non-developable area and supports integrated drainage and open space outcomes
- Infrastructure overlays (PAO) define the structural road and servicing network
- Secondary controls (heritage, cultural heritage, bushfire) introduce statutory requirements that influence approvals and staging

5.2 Aerial Photographs

The following historical aerial photographs were reviewed:

- Aerial photographs held by DEECA from 1951 and 1968.
- Aerial photographs held by Geoscience Australia from 1976, 1981 and 1992.
- Aerial photographs held by Google Earth from 2004.
- Aerial photographs held by Nearmap from 2010 – 2026.

Copies of the aerial photographs are shown in Appendix B.

Table 5-2: Aerial Photograph Review

YEAR / SOURCE	SUMMARY
1951 DEECA	Broad PSP area characterised by open agricultural land predominantly used for cropping (silage) and grazing. Minimal structural development across most parcels, with land largely cleared.
1968 DEECA	Establishment of internal access tracks and minor infrastructure becomes evident, particularly within Parcel 2 and along easement alignments. Land use remains primarily agricultural.
1976 Geoscience Australia	Increased intensity of agricultural activity in Parcel 3, including development of sheds, stockyards, and handling areas. Emergence of discrete activity zones rather than uniform paddocks.
1981 Geoscience Australia	Expansion of farm infrastructure within select parcels (notably Parcels 3 and 11), including shearing/storage sheds and internal access routes. Surrounding parcels remain largely unchanged.
1992 Geoscience Australia	Additional dams/pooling areas for Skeleton Creek and dirt tracks are visible throughout the assessment area. The number of building clusters has increased east of the PSP area. The excavation area of the concrete manufacturer north offsite has significantly increased, with new roads, stockpiles and excavations.
2004 Google Earth	A residence and associated structures have been built at 744 Boundary Road, Truganina (Property 1) in the southeast portion of the PSP area. A shed has been constructed in the north-central site portion within the property located at 345 Middle Road, Truganina (Properties 4 and 5). Some hard material stockpiling is visible approximately 65m south/southeast of the shed. Additional dirt tracks are also visible across the site, with animal shelters visible around the paddocked areas.

YEAR / SOURCE	SUMMARY
October 2009 Nearmap	Three new building clusters are present in the southwest portion of the PSP area, within the property located at 690-810 Hopkins Road, Truganina (Property 11). This includes the following: A large shed in the northern half of the property boundary. Several wheelie bins are present south of the shed, with hard material storage present north of the shed, including conduit piping, sheet metal, pallets and trailer storage. 230m southwest of the large shed described in the dot point above, another works area is present, consisting of 3 small structures, a large water tank and an animal pen. 150m west of the works area, several animal shelters are visible. A large hard material stockpile is located in the northeast portion of 690-810 Hopkins Road, Truganina, approximately 400m northeast of the large shed. This consists mainly of hard construction material. Large Pylons are present running southwest to northeast through the western portion of the PSP. Some darker coloured soil surface disturbances are visible across the east site portion.
January 2011 Nearmap	The northeast portion of the PSP appears to be utilised for cropping.
March 2012 Nearmap	Additional hard material stockpiling is visible in the southwest portion at 690-810 Hopkins Road, Truganina (Property 11), located approximately 200m southwest of the works area. The dam in the southern portion of this property has been extended with new dam walls visible. A new large animal pen is present in the central west site portion at 345 Middle Road, Truganina (Properties 4 and 5).
March 2015 Nearmap	A service trench is being excavated adjacent to the pylons. Based on information provided in the Lotsearch report, this is likely to be a gas pipeline. The concrete manufacturer/landfill has expanded north, adjacent to the PSP.
2026 Nearmap	No significant changes are observed across the PSP area.

5.3 Historical Certificates of Title

Historical certificates of title were reviewed for the individual land parcels that comprise the assessment area. A summary of the historical ownership of each parcel is provided in Table 5-3 to Table 5-13 to help identify past land uses and ownership patterns that may indicate potentially contaminating activities.

Table 5-3: Summary of Certificates of Title – 744 Boundary Road, Truganina

DATE OF ACQUISITION	TERM HELD	REGISTERED PROPRIETOR(S) & OCCUPATIONS WHERE AVAILABLE	REFERENCE TO TITLE AT ACQUISITION AND SALE
13.07.1907	1907 to 1914	Robert Hopkins (Grazier) (And his deceased estate)	Volume 3211 Folio 003
22.10.1914	1914 to 1915	Donald Evan Hopkins (Farmer)	Volume 3211 Folio 003
21.09.1915	1915 to 1961	Robert Hopkins (Farmer) (And his deceased estate)	Volume 3211 Folio 003
24.08.1961	1961 to 1979	Louis Robert Hopkins (Farmer)	Volume 3211 Folio 003
10.09.1979	1979 to 1997	Mary Stuart Hopkins (Widow)	Volume 3211 Folio 003
03.06.1997	1997 to 2000	Luke Anthony Mifsud, Damien Charles Mifsud	Volume 3211 Folio 003
01.09.2000	2000 to 2006	Luke Anthony Mifsud, Damien Charles Mifsud, Charles Mifsud, Martes Mifsud	Volume 3211 Folio 003

DATE OF ACQUISITION	TERM HELD	REGISTERED PROPRIETOR(S) & OCCUPATIONS WHERE AVAILABLE	REFERENCE TO TITLE AT ACQUISITION AND SALE
26.07.2006	2006 to 2019	Luke Anthony Mifsud, Damien Charles Mifsud, Charles Mifsud, Martes Mifsud	Volume 10959 Folio 268
20.06.2019	2019 to Date	ISPT Pty Ltd IFM Real Estate Fiduciary Pty Ltd	Volume 10959 Folio 268

Table 5-4: Summary of Certificates of Title – 952-1002, 1004 - 1054 Christies Road, Truganina

DATE OF ACQUISITION	TERM HELD	REGISTERED PROPRIETOR(S) & OCCUPATIONS WHERE AVAILABLE	REFERENCE TO TITLE AT ACQUISITION AND SALE
27.05.1902	1902 to 1902	Sir Rupert Turner Havelock Clarke (Baronet)	Volume 2870 Folio 848
02.09.1902	1902 to 1921	Charles John Coe (Wood and Coal Merchant) James Newman Coe (Wood and Coal Merchant)	Volume 2870 Folio 848 Volume 2891 Folio 052
01.09.1921	1921 to 1928	Charles John Coe (Wood and Coal Merchant) James Newman Coe (Wood and Coal Merchant)	Volume 2891 Folio 052 Volume 4496 Folio 084
02.04.1928	1928 to 1955	John William Robinson (Farmer)	Volume 4496 Folio 084
30.11.1955	1955 to 1964	Lachlan Roy McFarlane (Director)	Volume 4496 Folio 084
29.12.1964	1964 to 1976	Sir Vivyan Edward Naylor-Leyland (Baronet)	Volume 4496 Folio 084
10.03.1976	1976 to 1978	Derrimut Park Aktiengesellschaft	Volume 4496 Folio 084
07.08.1978	1978 to 1982	Mossfiel Nominees Pty Ltd	Volume 4496 Folio 084 Volume 9474 Folio 281
18.06.1982	1982 to 1995	W.J. & I. Nominees Pty Ltd	Volume 9474 Folio 281 Now: Volume 9770 Folio 771 & Volume 9770 Folio 772
20.09.1995	1995 to 1999	John Chua Seng Chai Johnnie Chua Seng Huat	Volume 9770 Folio 771 & Volume 9770 Folio 772
08.07.1999	1999 to Date	Eyal Cohen	Volume 9770 Folio 771 & Volume 9770 Folio 772 Now: Volume 11109 Folio 680 & Volume 11111 Folio 297

Table 5-5: Summary of Certificates of Title – 345 Middle Road, Truganina VIC 3029

DATE OF ACQUISITION	TERM HELD	REGISTERED PROPRIETOR(S) & OCCUPATIONS WHERE AVAILABLE	REFERENCE TO TITLE AT ACQUISITION AND SALE
07.07.1900	1900 to 1902	Robert Farragher (Farmer)	Volume 2770 Folio 853
29.04.1902	1902 to 1906	Finlay McPhail (Gentleman)	Volume 2770 Folio 853
02.03.1906	1906 to 1913	John Walter Leigh (Grazier)	Volume 2770 Folio 853 Now: Volume 3706 Folio 193
30.06.1913	1913 to 1927	William James Hanan (Farmer)	Volume 3706 Folio 193
12.05.1927	1927 to 1946	Charles Cummins Cherry (Farmer) (And his deceased estate)	Volume 3706 Folio 193 Now: Volume 5287 Folio 252
02.07.1946	1946 to 1951	Henrietta Lucy Cherry (Widow)	Volume 5287 Folio 252
07.09.1951	1951 to 1951	Alexander Clarke McLean (Solicitor)	Volume 5287 Folio 252

DATE OF ACQUISITION	TERM HELD	REGISTERED PROPRIETOR(S) & OCCUPATIONS WHERE AVAILABLE	REFERENCE TO TITLE AT ACQUISITION AND SALE
07.09.1951	1951 to 1964	Lachlan Roy McFarlane (Grazier)	Volume 5287 Folio 252
29.12.1964	1964 to 1976	Sir Vivyan Edward Naylor-Leyland (Baronet)	Volume 5287 Folio 252
10.03.1976	1976 to 1978	Derrimut Park Aktiengesellschaft	Volume 5287 Folio 252
07.08.1978	1978 to 1982	Mossfiel Nominees Pty Ltd	Volume 5287 Folio 252 Now: Volume 9302 Folio 512
18.06.1982	1982 to 1995	W.J. & I. Nominees Pty Ltd	Volume 9302 Folio 512
20.09.1995	1995 to 2001	John Chua, Seng Chai, Johnnie Chua, Seng Huat	Volume 9302 Folio 512 Now Volume 9770 Folio 773
19.12.2001	2001 to Date	Peter Bator/Batur Victor Bulic, Jurka Bulic, Meri Bulic, Tom Luke Bulic	Volume 9770 Folio 773 Now Volume 10646 Folio 763 & Volume 10646 Folio 764

Table 5-6: Summary of Certificates of Title – 848-950 Boundary Road, Truganina (Part 1)

DATE OF ACQUISITION	TERM HELD	REGISTERED PROPRIETOR(S) & OCCUPATIONS WHERE AVAILABLE	REFERENCE TO TITLE AT ACQUISITION AND SALE
07.07.1900	1900 to 1902	Robert Farragher (Farmer)	Volume 2770 Folio 853
29.04.1902	1902 to 1906	Finlay McPhail (Gentleman)	Volume 2770 Folio 853
02.03.1906	1906 to 1913	John Walter Leigh (Grazier)	Volume 2770 Folio 853
30.06.1913	1913 to 1927	William James Hanan (Farmer)	Volume 2770 Folio 853 Now Volume 3706 Folio 193
12.05.1927	1927 to 1946	Charles Cummins Cherry (Farmer) (And his deceased estate)	Volume 3706 Folio 193 Now Volume 5287 Folio 252
02.07.1946	1946 to 1951	Henrietta Lucy Cherry (Widow)	Volume 5287 Folio 252
07.09.1951	1951 to 1951	Alexander Clarke McLean (Solicitor)	Volume 5287 Folio 252
07.09.1951	1951 to 1964	Lachlan Roy McFarlane (Director)	Volume 5287 Folio 252

Table 5-7: Summary of Certificates of Title – 848-950 Boundary Road, Truganina (Part 2)

DATE OF ACQUISITION	TERM HELD	REGISTERED PROPRIETOR(S) & OCCUPATIONS WHERE AVAILABLE	REFERENCE TO TITLE AT ACQUISITION AND SALE
27.05.1902	1902 to 1902	Sir Rupert Turner Havelock Clarke (Baronet)	Volume 2870 Folio 848
02.09.1902	1902 to 1921	James Newman Coe (Wood and Coal Merchant) Charles John Coe (Wood and Coal Merchant)	Volume 2870 Folio 848 Now Volume 2891 Folio 052

DATE OF ACQUISITION	TERM HELD	REGISTERED PROPRIETOR(S) & OCCUPATIONS WHERE AVAILABLE	REFERENCE TO TITLE AT ACQUISITION AND SALE
01.09.1921	1921 to 1928	James Newman Coe (Wood and Coal Merchant) Charles John Coe (Wood and Coal Merchant)	Volume 2891 Folio 052 Now Volume 4496 Folio 084
02.04.1928	1928 to 1955	John William Robinson (Farmer) (And his deceased estate)	Volume 4496 Folio 084
30.11.1955	1955 to 1964	Lachlan Roy McFarlane (Director)	Volume 4496 Folio 084

Table 5-8: Summary of Certificates of Title – 848-950 Boundary Road, Truganina (Continued as a whole)

DATE OF ACQUISITION	TERM HELD	REGISTERED PROPRIETOR(S) & OCCUPATIONS WHERE AVAILABLE	REFERENCE TO TITLE AT ACQUISITION AND SALE
29.12.1964	1964 to 1976	Sir Vivyan Edward Naylor-Leyland (Baronet)	Volume 5287 Folio 252 & Volume 4496 Folio 084
10.03.1976	1976 to 1978	Derrimut Park Aktiengesellschaft	Volume 5287 Folio 252 & Volume 4496 Folio 084
07.08.1978	1978 to 1982	Mossfiel Nominees Pty Ltd	Volume 5287 Folio 252 & Volume 4496 Folio 084
18.06.1982	1982 to 1995	W.J. & I. Nominees Pty Ltd	Volume 5287 Folio 252 & Volume 4496 Folio 084 Then Volume 9302 Folio 512 & Volume 9474 Folio 281 Now Volume 9768 Folio 571
20.09.1995	1995 to 1999	John Chua Seng Chai Johnnie Chua Seng Huat	Volume 9768 Folio 571
08.07.1999	1999 to 2004	Eyal Cohen	Volume 9768 Folio 571
13.09.2004	2004 to 2007	Western Hi-Way Investments Pty Ltd	Volume 9768 Folio 571
03.01.2007	2007 to 2022	T.C.G. Solutions Pty Ltd Seventy-Third Wreath Pty Ltd	Volume 9768 Folio 571
31.10.2022	2022 to Date	ESR Investment Management 1 (Australia) Pty Ltd	Volume 9768 Folio 571 Now Volume 12434 Folio 522

Table 5-9: Summary of Certificates of Title – 848-950 Boundary Road, Truganina (Continued as a whole)

DATE OF ACQUISITION	TERM HELD	REGISTERED PROPRIETOR(S) & OCCUPATIONS WHERE AVAILABLE	REFERENCE TO TITLE AT ACQUISITION AND SALE
29.12.1964	1964 to 1976	Sir Vivyan Edward Naylor-Leyland (Baronet)	Volume 5287 Folio 252 & Volume 4496 Folio 084
10.03.1976	1976 to 1978	Derrimut Park Aktiengesellschaft	Volume 5287 Folio 252 & Volume 4496 Folio 084
07.08.1978	1978 to 1982	Mossfiel Nominees Pty Ltd	Volume 5287 Folio 252 & Volume 4496 Folio 084
18.06.1982	1982 to 1995	W.J. & I. Nominees Pty Ltd	Volume 5287 Folio 252 & Volume 4496 Folio 084

DATE OF ACQUISITION	TERM HELD	REGISTERED PROPRIETOR(S) & OCCUPATIONS WHERE AVAILABLE	REFERENCE TO TITLE AT ACQUISITION AND SALE
			Then Volume 9302 Folio 512 & Volume 9474 Folio 281 Now Volume 9768 Folio 571
20.09.1995	1995 to 1999	John Chua Seng Chai Johnnie Chua Seng Huat	Volume 9768 Folio 571
08.07.1999	1999 to 2004	Eyal Cohen	Volume 9768 Folio 571
13.09.2004	2004 to 2007	Western Hi-Way Investments Pty Ltd	Volume 9768 Folio 571
03.01.2007	2007 to 2022	T.C.G. Solutions Pty Ltd Seventy-Third Wreath Pty Ltd	Volume 9768 Folio 571
31.10.2022	2022 to Date	ESR Investment Management 1 (Australia) Pty Ltd	Volume 9768 Folio 571 Now Volume 12434 Folio 522

Table 5-10: Summary of Certificates of Title – 690-810 Hopkins Road, Truganina (Part 1)

DATE OF ACQUISITION	TERM HELD	REGISTERED PROPRIETOR(S) & OCCUPATIONS WHERE AVAILABLE	REFERENCE TO TITLE AT ACQUISITION AND SALE
25.03.1905	1905 to 1922	John Box (Medical Practitioner)	Book 421 No. 201
29.12.1922	1922 to 1934	John Dwyer (Aerated Water Manufacturer) George William Dwyer (Aerated Water Manufacturer)	Book 503 No. 270
28.03.1934	1934 to 1954	Marchants Aerated Waters and Cordials Pty. Ltd. (Also stylised as Marchant's Aerated Waters & Cordials Proprietary Limited)	Book 544 No. 222
06.10.1954	1954 to 1954	Henry Parkes Robinson (Director)	Book 627 No. 995
15.12.1954	1954 to 1964	Lachlan Roy McFarlane (Director)	Book 629 No. 193 Now Volume 8041 Folio 595

Table 5-11: Summary of Certificates of Title – 690-810 Hopkins Road, Truganina (Part 2)

DATE OF ACQUISITION	TERM HELD	REGISTERED PROPRIETOR(S) & OCCUPATIONS WHERE AVAILABLE	REFERENCE TO TITLE AT ACQUISITION AND SALE
07.07.1900	1900 to 1902	Robert Farragher (Farmer)	Volume 2770 Folio 853
29.04.1902	1902 to 1906	Finlay McPhail (Gentleman)	Volume 2770 Folio 853
02.03.1906	1906 to 1913	John Walter Leigh (Grazier)	Volume 2770 Folio 853
30.06.1913	1913 to 1927	William James Hanan (Farmer)	Volume 2770 Folio 853 Now Volume 3706 Folio 193
12.05.1927	1927 to 1946	Charles Cummins Cherry (Farmer) (And his deceased estate)	Volume 3706 Folio 193 Now Volume 5287 Folio 252
02.07.1946	1946 to 1951	Henrietta Lucy Cherry (Widow)	Volume 5287 Folio 252

DATE OF ACQUISITION	TERM HELD	REGISTERED PROPRIETOR(S) & OCCUPATIONS WHERE AVAILABLE	REFERENCE TO TITLE AT ACQUISITION AND SALE
07.09.1951	1951 to 1951	Alexander Clarke McLean (Solicitor)	Volume 5287 Folio 252
07.09.1951	1951 to 1964	Lachlan Roy McFarlane (Director)	Volume 5287 Folio 252

Table 5-12: Summary of Certificates of Title – 690-810 Hopkins Road, Truganina (Part 3)

DATE OF ACQUISITION	TERM HELD	REGISTERED PROPRIETOR(S) & OCCUPATIONS WHERE AVAILABLE	REFERENCE TO TITLE AT ACQUISITION AND SALE
27.05.1902	1902 to 1905	Sir Rupert Turner Havelock Clarke (Baronet)	Volume 2870 Folio 848
01.07.1905	1905 to 1922	John Box (Medical Practitioner)	Volume 2870 Folio 848 Now Volume 2879 Folio 768
29.12.1922	1922 to 1934	John Dwyer (Aerated Water Manufacturer) George William Dwyer (Aerated Water Manufacturer)	Volume 2879 Folio 768 Now Volume 4655 Folio 890
28.03.1934	1934 to 1954	Marchants Aerated Waters and Cordials Pty. Ltd. (Also stylised as Marchant's Aerated Waters & Cordials Proprietary Limited)	Volume 4655 Folio 890
11.10.1954	1954 to 1954	Henry Parker Robinson (Director)	Volume 4655 Folio 890
13.12.1954	1954 to 1964	Lachlan Roy McFarlane (Director)	Volume 4655 Folio 890

Table 5-13: Summary of Certificates of Title – 690-810 Hopkins Road, Truganina (Continued as whole)

DATE OF ACQUISITION	TERM HELD	REGISTERED PROPRIETOR(S) & OCCUPATIONS WHERE AVAILABLE	REFERENCE TO TITLE AT ACQUISITION AND SALE
29.12.1964	1964 to 1976	Sir Vivyan Edward Naylor-Leyland (Baronet)	Volume 8041 Folio 595 & Volume 5287 Folio 252 & Volume 4655 Folio 890
10.03.1976	1976 to 1978	Derrimut Park Aktiengesellschaft	Volume 8041 Folio 595 & Volume 5287 Folio 252 & Volume 4655 Folio 890
07.08.1978	1978 to 1982	Mossfiel Nominees Pty Ltd	Volume 5287 Folio 252 (Now Volume 9302 Folio 512) Also Volume 8041 Folio 595 & Volume 4655 Folio 890
18.06.1982	1982 to 1995	W.J. & I. Nominees Pty Ltd	Volume 8041 Folio 595 & Volume 9302 Folio 512 & Volume 4655 Folio 890 Now Volume 9768 Folio 570
20.09.1995	1995 to 2000	John Chua Seng Chai Johnnie Chua Seng Huat	Volume 9768 Folio 570
01.08.2000	2000 to Date	Karatonga Pty Ltd	Volume 9768 Folio 570

5.3.1 Certificates of Title Summary

A review of historical Certificates of Title for the assessed parcels was undertaken to establish patterns of ownership and infer historical land uses in the context of the current site configuration described in Section 5. The precinct comprises a mix of Urban Growth Zone (UGZ), Farming Zone (FZ), and associated overlay areas distributed across Property Identifiers 1 to 11. Consistent with this zoning profile, title records indicate that parcels such as Property Identifiers 4 and 5 (345 Middle Road), 6 and 7 (952–1002 Christies Road), and 10 and 11 (Hopkins Road) have historically been held by individuals identified as farmers or graziers, reflecting long-term agricultural land use across these areas.

Notwithstanding this dominant agricultural pattern, the title review identifies specific departures from rural use for certain properties. For example, land associated with Property Identifiers 6 and 7 (Christies Road) records ownership by wood and coal merchants in the early 1900s, while portions of Property Identifiers 10 and 11 (Hopkins Road) were held by an aerated waters and cordials manufacturer between 1922 and 1954. These ownership records indicate discrete historical activities that may not align with current zoning or land use under Section 5 and have been considered in identifying parcels where a higher potential for contamination may exist at a precinct scale.

5.4 List of Issued Environmental Audit Reports/PRSA and EPA Priority Sites Register

There are no sites in a 2 km radius or within the PSP area listed on the EPA Priority Sites Register. No EPA audits or PRSAs were completed onsite, with 39 audits/PRSAs completed within 2.0km of site.

308 Middle Road and 1100 Christies Road, Ravenhall (North adjacent to site)

32 environmental audits have been completed on the property/properties located north of the site. These have been on behalf of Cleanaway Regional Landfill/Boral Concrete/an asphalt plant and relate to the ongoing compliance of the site as an active landfill (with closed cells in some areas). The most recent report ([EA001841](#)) is summarised below:

Boral Property requested that Tetra Tech Coffey conduct an environmental audit at 308 Middle Road, Ravenhall. The purpose of the audit was to assess the risk that the landfill cells in the surrounding areas posed to future site users and the environment. This property bounded in this audit report covered the central southern parcel of the wider activity area, and is surrounded on its north, east and west boundaries by the Melbourne Regional Landfill (MRL).

Given that landfilling is ongoing to the north (capping) and west (filling and capping) of the site, it is currently not possible to assess whether the surrounding landfill cells may present a potential risk to human health at the site in the future.

Groundwater sampling of wells determined that groundwater flow was toward the southeast across the property (which may flow toward the site) and reported several elevated concentrations exceeding adopted criteria (all of which included the industrial/commercial environmental value) considered to be caused by the MRL. This included the following analytes:

- | | | | |
|-----------|------------|--------|---------|
| • Nitrate | • Chloride | • TDS | • PFHxS |
| • Sodium | • Sulfate | • PFOS | |

No reported concentrations of volatile analytes were reported, indicating the risk for vapour intrusion from groundwater to impact the audited property is low.

The auditor issued a statement of environmental audit for the site and issued the following recommendations for managing potential impacts to the environmental values relevant to the site.

- The site is suitable for the uses of commercial, industrial and landfilling based on the current conditions on the site and the current management of landfill gases at the adjacent Melbourne Regional Landfill. However, groundwater at the site is contaminated a GWRUZ will need to be applied for the property, and additional landfill gas management measures may be required in future.
- Based on elevated chlorides in groundwater exceeding the Australian Standard 2159 (Piling-Design and Installation), subsurface structures should be developed to withstand elevated concentrations.
- A landfill gas management plan (LFGMP) is developed for the site.

Given that the property is hydraulically upgradient of the PSP, Beveridge Williams considers that landfill gas (LFG) and contaminated groundwater may migrate from the site toward the PSP.

Ravenhall Conservation Reserve and Surrounds (1.5km northeast of site)

4 environmental audits have occurred in the wider area approximately 1.5km northeast of the PSP area. This is mainly due to the historical use of the wider area for the defence testing of rockets/munitions. The most recent audit was conducted in 2019 (CARMS 68344) and has been summarised below;

In 2019, AECOM conducted an environmental audit at (Part) 101 – 201 Riding Boundary Road, Ravenhall for the Department of Justice and Community Safety for an expansion to Dame Phyllis Frost Centre (Correctional facility). The site had historically been filled with soil (a large fill mound was present onsite) and hard waste had been dumped in the vicinity, had been utilised for defence testing of munitions since 1946.

All soil chemical testing was reported below the 'soil quality objectives', and groundwater testing was found to indicate a southeast flow direction and to have naturally elevated heavy metals, pH and chloride that were not considered indicative of contamination. The auditor was satisfied that the distribution and sampling frequency to obtain a valid judgement of the contamination status of the site was achieved and issued a certificate of environmental audit.

860 Derrimut Road, Tarneit (PRSA001117 - 500m south of site)

In 2022, a PRSA was conducted at 860 Derrimut Road, Tarneit, on behalf of The Islamic Fund. The site was historically utilised as a school and farm, with stockpiled waste present in the northeast portion of the property.

As most of the site consisted of vacant greenfield, most of the area was considered low risk, however, the PRSA identified two areas of concern:

- In the northwestern site portion, elevated heavy metals and 'agricultural chemicals' in soils across the area of the former school, as well as a wastewater treatment, effluent and disposal system that remained insitu.
- In the northeastern portion, significant quantities of stockpiled soils and waste materials were present that required assessment.

The auditor considered that additional soil, groundwater and surface water investigation was required under an environmental audit.

Beveridge Williams considers it unlikely that contamination from this property could affect the PSP area, as this site is hydraulically downgradient.

5.5 Geology

Based on a review of the Lotsearch Report and GeoVic ⁵, the site is underlain by a single geological unit identified as the Newer Volcanic Group - basalt flows (Neo). This unit comprises olivine tholeiite, quartz tholeiite, basanite, basaltic icelandite, hawaiite, mugearite, minor scoria and ash, along with fluvial sediments ranging from tholeiitic to alkaline. It typically includes sheet flows, valley flows, and intercalated gravel, sand, and clay. A review of the geological mapping indicates that this unit is uniformly distributed across the entirety of the site, with no other geological units present. Additionally, the geology of the immediate surrounding area is highly consistent with that of the site, indicating a continuous and uniform geological setting in the surrounding region.

A plan of the regional geology is presented in Figure 2.

5.6 Potential Acid Sulfate Soils

Based on a review of the Lotsearch Report (Appendix C) and available online resources⁶, the site and surrounding areas are underlain by soils with an extremely low probability of acid sulphate soil occurrence (1-5%). The nearest area of high potential for acid sulfate soils is located 5.2km east of the site at Andersons Swamp.

⁵ http://er-info.dpi.vic.gov.au/sd_weave/anonymous.html - (online) accessed May 2026.

⁶ <https://soilhealth.ccmaknowledgebase.vic.gov.au/> - (online) accessed May 2026.

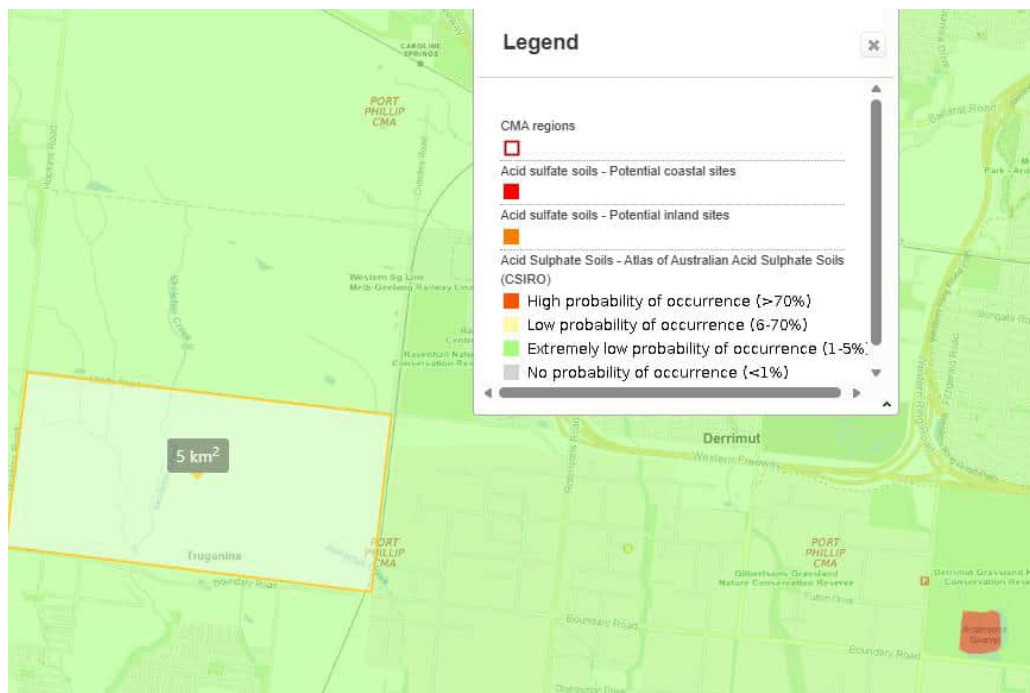


Figure 5-1: Potential ASS Map

5.7 Sodic Soils

A review of regional geological and soil datasets indicates that the study area is underlain by Quaternary Newer Volcanics (basalt flows) with localised alluvial deposits associated with Skeleton Creek. These conditions are typically associated with the development of fine-grained clay soils and duplex (texture-contrast) profiles, including Sodosols

State-wide sodic soil mapping (Ford et al, 1993)⁷ identifies the Derrimut Fields PSP area as occurring within an alkaline sodic soil region.

Available mapping datasets present differing interpretations of sodicity:

- Regional Victorian mapping classifies the site as non-sodic (ESP <6%); however
- Department of Natural Resources and Environment mapping identifies the area within a minor occurrence zone of Brown Sodosols (associated with Chromosols and Kurosols)

In accordance with the ASC NEPM framework, these datasets represent preliminary (desktop) lines of evidence only, and are insufficient to confirm the presence or absence of dispersive soils without intrusive verification. The presence of basalt-derived clay soils and alluvial environments is considered consistent with a potential for sodicity, particularly within lower-lying areas in proximity to Skeleton Creek.

Accordingly, the site is conservatively assessed as presenting a potential to moderate risk of sodic/dispersive soils at a precinct scale, with elevated risk likely in alluvial and drainage-associated landforms.

Consistent with ASC NEPM requirements for a staged assessment approach, further investigation is required to confirm soil properties, including:

- Targeted sampling of representative soil horizons; and
- Laboratory testing for Exchangeable Sodium Percentage (ESP) and related indicators of soil dispersion.

These investigations should be prioritised in areas exhibiting geomorphic indicators of instability (e.g. erosion, drainage lines or alluvial deposits) and will inform subsequent geotechnical and land capability assessments

⁷ Ford, G.W., Martin, J.J., Rengasamy, P., Boucher, S.C. and Ellington, A., 1993: Soil sodicity in Victoria. Australian Journal of Soil Research 31, 869-909.

5.8 Victorian Landfill Register

The Victoria Unearthed Database⁸, which includes the information from the Victorian Landfill Register, was reviewed. The search revealed six (6) former landfills and one (1) active landfill within 1 km of the site. The details are summarised in Table 5-14 below.

Table 5-14: Registered Landfills in the vicinity of site

NAME	ADDRESS	DISTANCE FROM SITE	MANAGEMENT TYPE	FACILITY TYPE	STATUS	PARCEL IMPACTED
Boral Western Landfill	Riding Boundary Road, Truganina	Immediately North / 1 km (Waste recycling)	-	Landfill	-	4,6,7 & 10 Landfill Gas
Boral Recycling Pty Ltd (Ravenhall)	1100-1152 Christies Road, Ravenhall		-	Landfill/Waste recycling	-	1 to 10 Nois, Dust, Odour
Cleanaway Mrl Ravenhall	1180 Christies Road, Ravenhall		Disposal	Landfill Putrescible	Operational	1 to 10 Nois, Dust, Odour
Cleanaway Mrl Ravenhall	1180 Christies Road, Ravenhall		Drop-Off	Transfer Station	Operational	None
Total Drain Cleaning Services Truganina	104 Agar Dr, Truganina	475m East	-	-	Operational	None

5.9 Other Adverse Amenity Uses

A desktop review of nearby adverse amenity impacts of the surrounding land uses identified for the Derrimut Fields PSP area was undertaken with reference to the EPA Victoria *Separation distance guideline* (2024) and *Landfill buffer guideline: Publication 1950* (2025). The most relevant adverse amenity source in proximity to the PSP is the active landfill and associated waste management activities located immediately north of the precinct along Christies Road / Middle Road.

A break down of the other adverse amenities with listed separation/buffer distances has been provided in Table 5-15 below:

Table 5-15: Other Surrounding Adverse Amenities

COMPANY	ADDRESS	ACTIVITY	DISTANCE	RELEVANT SEPARATION DISTANCE GUIDELINE	POTENTIAL AMENITY IMPACT	PARCEL/S IMPACTED
Boral Quarries Deer Park	Riding Boundary Road, Deer Park	Basalt quarry and extractive industry	Immediately north (quarry activities limited to northern extractive faces (Approx. 1km from site)	Extractive industry / quarrying: 500 m recommended separation distance where blasting occurs; 250 m where no blasting occurs.	Possible within/adjoining relevant separation distance; potential dust, noise and blasting/vibration amenity considerations.	4 & 10

⁸ <http://mapshare.maps.vic.gov.au/victoriaunearthed/> - (online) accessed May 2026.

COMPANY	ADDRESS	ACTIVITY	DISTANCE	RELEVANT SEPARATION DISTANCE GUIDELINE	POTENTIAL AMENITY IMPACT	PARCEL/S IMPACTED
Boral Asphalt Deer Park		Asphalt production plant	1.5 km north of the site	Hot-mix asphalt manufacture / asphalt plant: 500 m recommended separation distance.	No	N/A
Boral Concrete Deer Park & Metro Tunnel Tunnel Lining Segment Manufacturing Facility		Concrete batching / ready-mix concrete production	1.5 km north of the site	Concrete batching / concrete products manufacture: 100 m recommended separation distance where >2,000 t/year cement handled.	No	N/A
Tricomposite	33 Rhine Road, Truganina	Fibreglass manufacturing	1.5km north west	Manufacturing of products using fibreglass of resin (>250t year, 500m buffer)	No	N/A
Metal Manufacturing (Various)	Various	Machining, die casting, small scale sand casting	From 600m east of site	Metal casting (100m for die casting, 500m for sand casting <500kg/cycle, 1000m for sand casting >500kg/cycle)	No	N/A
Cavalier brewing and taproom	Unit 5/2 Derrimut Drive, Truganina	Alcoholic beverage manufacturing	2.0 km east of site	2000 - 5000L/day, 250m, >5000L/day 500m	No	N/A
Veneziano Coffee Roaster	41 Paul Joseph Way, Truganina	Roasting of coffee beans	800m east of site	>200t/year, 250m	No	N/A
Microsoft Woods Road	281 Woods Road, Truganina	Data Centres	Immediately South	No Victorian adopted guidelines ⁹	No	N/A
PGIM	1 Oroya Drive, Truganina		2.5km north west		No	N/A

⁹ Although no Victorian guidance specific to data centre separation distances has been identified, a review of planning and environmental guidance across Australian jurisdictions did not identify any prescribed buffer or separation distance requirements for data centres. Unlike land uses with recognised off-site amenity, environmental or safety impacts, the suitability of data centre developments is generally assessed on a site-specific basis having regard to factors such as noise, air emissions, traffic, hazardous materials, infrastructure servicing and surrounding land use compatibility

5.10 Topography Plans

The surface elevation across the site ranges from 46 to 66 mAHD. The site generally features a moderate slope falling from the northwest, where elevations reach approximately 67 mAHD, down towards the southeast, where elevations are around 48 mAHD.

Several surface water bodies are located within 500 meters of the site. The western branch of Skeleton Creek is situated immediately adjacent to the western site boundary, with a determinable drop in elevation from the site towards the creek, which runs through lower ground at approximately 50 to 51 mAHD. Similarly, the eastern branch of Skeleton Creek is located immediately adjacent to the eastern boundary, displaying a drop in elevation from the site towards the creek down to roughly 55 to 59 mAHD.

There is a slight drop in elevation to the north and northeast of the site along Dohertys Drain located approximately 200 to 300 meters from the northern parts of the site, which sit at 65 to 67 mAHD, the regional gradient dropping towards the drain at around 60 to 65 mAHD.

5.11 Climate

The local climate information presented on Figure 5-2 has been derived from a Bureau of Meteorology (BoM) meteorological station located at Melbourne Airport (Station 086282), approximately 15 km northeast of the PSP area. This station provides a long-term, regionally representative climate dataset for western Melbourne.

Based on long-term climate records (since 1970), the mean maximum annual temperature at Melbourne Airport is approximately 20.0°C, and the mean minimum annual temperature is approximately 9.6°C.

Mean annual precipitation at this station is approximately 535–540 mm/year. These values are consistent with broader regional climate datasets for Truganina, which indicate annual rainfall generally on the order of ~500–550 mm/year.

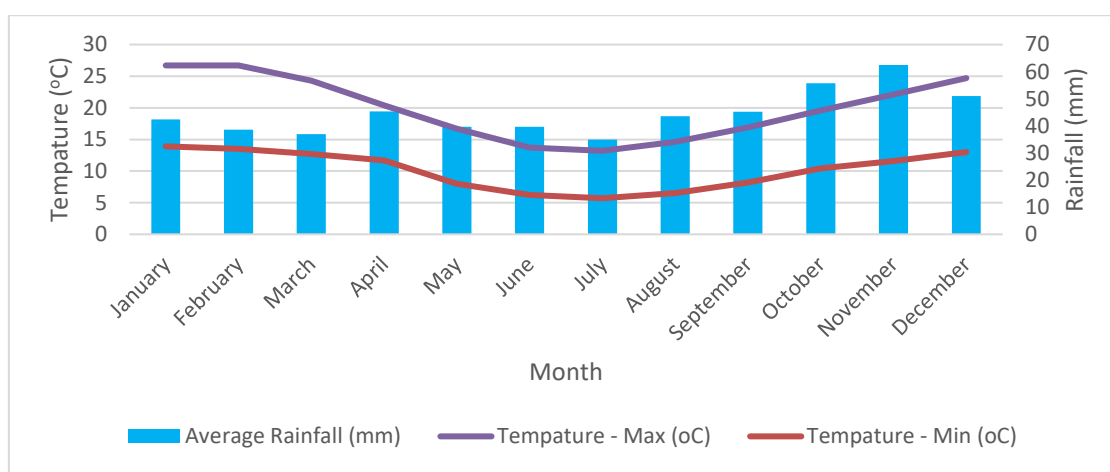


Figure 5-2: Mean (since 1970) Weather Data for Melbourne Airport ¹⁰

The PSP area is located in a region which has a mean actual evapotranspiration of between 500 and 600 mm/year (presented in Figure 5-3). The PSP area is expected to receive an average of 10 to 50 mm/year under pre-development conditions.

¹⁰ http://www.bom.gov.au/climate/averages/tables/cw_086282_All.shtml - (online) accessed May 2026 - Bureau of Meteorology, Melbourne Airport, Victoria, Station 086282, 144.83°E, 37.67°S, 113 mAHD

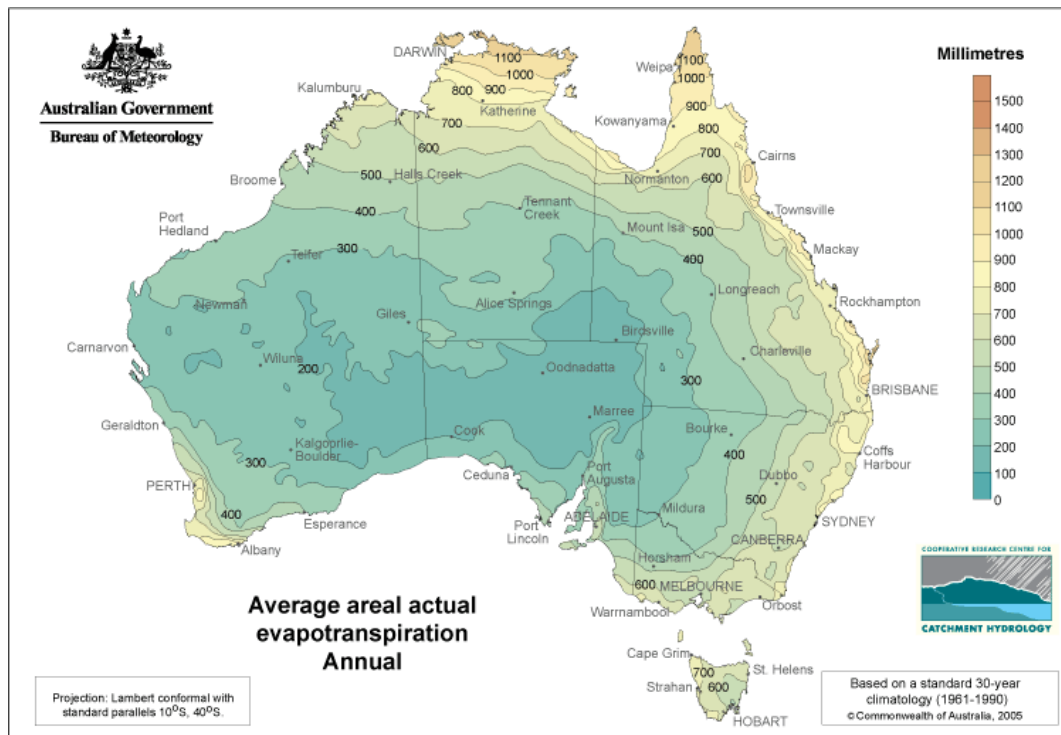


Figure 5-3: Average Annual Areal Actual Evapotranspiration data¹¹

5.12 Landslides and Erosion Risks

Landslide risk within the PSP area is considered low at a precinct scale due to the generally flat topography and basalt-derived soil conditions. However, localised erosion and minor instability may occur in proximity to the Skeleton Creek corridor and associated drainage lines.

These areas represent hydrologically active environments where soil stability may be influenced by concentrated surface water flows, vegetation condition, and local soil characteristics, including the presence of dispersive materials.

Accordingly, land adjacent to Skeleton Creek is considered to present a moderate erosion constraint and is best suited to open space and drainage functions within the PSP. Development in these areas should incorporate appropriate erosion management and drainage design measures to maintain long-term land stability.

5.13 Flood Risk

The Skeleton Creek corridor traverses the broader precinct and represents the primary floodplain and drainage feature within the area. Review of planning controls indicates that land associated with this corridor is affected by the Urban Floodway Zone (UFZ) and the Land Subject to Inundation Overlay (LSIO), reflecting areas subject to inundation and flood conveyance.

These controls are generally confined to the defined creek corridor and immediately adjacent low-lying land, with flood mapping following the alignment of Skeleton Creek and its associated drainage network.

Current planning scheme mapping indicates that the developable parts of the PSP are generally outside the areas affected by the UFZ and LSIO; however, flood-related constraints remain relevant to land associated with the Skeleton Creek corridor and should be considered in future precinct planning and drainage design.

Notwithstanding this, development of the land will be required to respond to the broader flood regime of Skeleton Creek, including consideration of overland flow paths, local drainage conditions and finished floor levels, to the satisfaction of the relevant drainage authority (Melbourne Water).

¹¹ http://www.bom.gov.au/jsp/ncc/climate_averages/evapotranspiration/index.jsp - (online) accessed June 2024 - Bureau of Meteorology, 2018, Average areal actual evapotranspiration (Annual)

5.13.1 Dams

There are approximately 4 dams scattered across the west portion of the PSP Area with most dams appearing to be located on flat land and with a limited run-off catchment. At the time of Inspection all dams were observed to be dry, indicating seasonal filling from surface water runoff/fed from alternative water supply as required.

It is noted that a number of factors may influence water levels in dams, so the water level in dams is not necessarily an indication of the depth to groundwater.

It is considered that dams while potentially an accumulation point for contaminants the risk rating for the identified dams are considered to be consistent with that of the surrounding land.

5.14 Hydrogeology

5.14.1 Protected Environmental Values

A search of the Visualising Victoria's Groundwater¹² database showed the site and surrounding region to be underlain by groundwaters with total dissolved solids (TDS) between 1,000 and 3500 mg/L in the northeast PSP area, and between 3,500 and 7,000 mg/L across the remainder of site. Groundwater is inferred to be between 5 and 10 m across the PSP area. This would conservatively classify the groundwater beneath the site as Segment A2 (northeast PSP area) and B waters (remainder of site), as per the Environmental Reference Standards (2021).

The protected environmental values of Segment A2 and B are listed below:

Segment A2

- Water dependent ecosystems and species
- Potable Water Supply (desirable)
- Agriculture and irrigation (irrigation and stock watering)
- Industrial and commercial
- Water-based recreation (primary contact recreation)
- Traditional Owner cultural values
- Buildings and structures
- Geothermal properties

Segment B

- Water dependent ecosystems and species
- Potable mineral water supply
- Agriculture and irrigation (irrigation and stock watering)
- Industrial and commercial
- Water-based recreation (primary contact recreation)
- Traditional Owner cultural values
- Buildings and structures
- Geothermal properties

5.14.2 Flow Direction and Recharge

Regional groundwater flow will likely follow the general topography of the area, directing surface and local groundwater flow towards Skeleton Creek or one of its associated tributaries in the central/west portion of the PSP area. Overall regional flow direction is anticipated to be to the south/southeast towards the Sanctuary Lakes and Port Philip Bay.

¹² <http://www.vvg.org.au/> - (online) accessed July 2024.

Regional groundwater recharge is most likely to occur predominantly from rainfall in the open grassland across the PSP and the surrounding area occupied by agricultural and former/current landfill use.

5.15 Hydrogeology – Aquifer Geology

The study area is located within the Victorian Volcanic Plains, which are characterised by Quaternary Newer Volcanics basalt flows with locally variable weathering profiles. Groundwater systems in this region typically occur within:

- Fractured basalt units, providing secondary porosity and permeability
- Interbedded clayey soils and alluvium, which may locally restrict groundwater movement
- Alluvial deposits associated with Skeleton Creek and tributaries, which may host shallow, discontinuous aquifers

Groundwater flow within the basaltic aquifer system is generally low to moderate permeability, with local variability depending on fracturing, weathering, and lithological heterogeneity.

5.16 Groundwater Users and Management Authority

The site is located within an area administered by Greater Western Water. A search was completed for registered groundwater bores within a 2km radius of the approximate centre of the PSP area.

5.16.1 Registered Users

A total of 116 groundwater bores were registered within the 2km search radius, of which 18 were recorded within the PSP area. The majority of the groundwater bores registered within the PSP area and the surrounding region were listed as observation/investigation and domestic &/or stock. The total depths of these registered bores range from 4 m to 59 m below ground surface.

The Water Information System (WMIS)¹³ search data is within the LotSearch report presented in Appendix C.

5.16.2 Groundwater Levels

Based on regional database sources (e.g. WMIS and interpreted Lotsearch data), groundwater in the vicinity of the site is typically encountered at:

- Shallow to moderate depths, generally in the order of ~2 m to 10 m below ground level (mbgl)
- Localised perched groundwater conditions may occur within clayey horizons or alluvial zones, particularly in the vicinity of drainage lines

Seasonal fluctuations are expected in response to rainfall and recharge, particularly in lower-lying areas associated with the Skeleton Creek corridor.

The following potential sources contamination which may pose a higher risk of adversely impacting groundwater:

- Historical and adjacent landfill and extractive industry activities located to the north of the study area
- Automotive repair, scrap metal recovery and light industrial activities associated with the nearby industrial zoned land
- Disused agricultural infrastructure, including former dairies, animal husbandry areas and stockyards
- Areas of historical filling and material stockpiling, including unknown or uncontrolled fill
- Localised burn pits and waste disposal areas associated with historical rural land use practices

5.16.3 Groundwater Yields

Groundwater levels were reported within 4 of the registered groundwater bores within the 2.0 km radius.

The recorded yields from the registered bores within the area ranged from 0.0 to 6 litres/second. Of the registered bores within the PSP area no groundwater yield records were available.

¹³ WMIS managed by Department of Environment, Land, Water and Planning: <http://data.water.vic.gov.au/monitoring.htm> (accessed July 2024).

6 SITE INSPECTION

On the 15 May 2026, a Beveridge Williams Environmental Professional undertook a site inspection across the PSP area and adjacent Commercial Centre to the south east during which the following observations were made:

The site comprises a series of parcels associated with historical agricultural use. Across the majority of parcels, the land was observed to be generally flat to gently undulating and predominantly cleared, with widespread evidence of past cropping (silage production) and grazing (cattle, sheep and horses). Vegetation was sparse, consisting mainly of dry grass cover with scattered mature trees along boundaries and drainage features.

Table 6-1: Site Inspection Observations

PARCEL ID	PHOTO NO. (APPENDIX D)	OBSERVATIONS
1	1-2	Parcel 1 comprises an open paddock that appeared to have been historically used for cropping (silage production). The land was generally cleared with no significant structures, with the exception of a small shed. Several groundwater monitoring wells were observed distributed across the parcel.
2	3-5	Parcel 2 also comprised cleared agricultural land previously used for cropping, with no built structures observed. Gravelled and graded vehicle tracks were present, extending from the southern boundary near Boundary Road towards the north and east. A road easement was observed extending northwards.
3	6-18	Parcel 3 contained the greatest concentration of remnant rural infrastructure and potential environmental features. Observations included: - A partially collapsed former barn/shelter in the southeast portion of the parcel, with deteriorated building materials present, including material potentially containing asbestos. - A retired above-ground fuel tank located north of the collapsed structure. - A former shearing shed and associated stockyard infrastructure, including stock ramps and fenced handling areas. - Accumulated solid waste within stockyard areas (e.g. sheet metal, wire and galvanised steel tubing). - A large concrete tank/pad and associated concrete "drip run", interpreted as a former drenching facility. - A drainage catchment dam and embankment located in the southern portion of the parcel, with drainage directed towards Skeleton Creek.
4	19	Parcel 4 was generally open agricultural land, with a farm equipment storage shed located in the north-east portion of the parcel.
5	NA	Parcel 5, 6, 7 and 8 comprised open agricultural land with no structures present.
6	NA	
7	NA	
8	NA	

PARCEL ID	PHOTO NO. (APPENDIX D)	OBSERVATIONS
9	20-22	Parcel 9 comprised predominantly open paddocks used for cropping/silage and limited livestock grazing (sheep). A fenced storage area was observed containing a water tank and various agricultural chemical containers (including herbicides).
10	23	Parcel 10 consisted of grassed paddocks used for cattle grazing. No permanent structures were observed, with the exception of a rock wall and a temporary stock loading ramp
11	24-31	Parcel 11 contained a mixture of open paddocks and rural infrastructure, with the following features observed: • A gravel driveway extending from the south-west entry to the north-east corner, generally aligned with a powerline easement. • Predominantly grassed paddocks used for horse agistment. • Several storage and vehicle sheds within the central portion of the parcel. • Localised waste materials including a small timber burn-off pile. • Shallow weathered rock (basaltic) observed at or near surface in parts of the parcel. • Stormwater/sewer infrastructure located adjacent to the north-east corner. • Skeleton Creek aligned along the northern boundary of the parcel.
Easements (Parcels 2, 3, 4, 5, 6 and 8)	32	Service easements were observed between several parcels, including infrastructure associated with fibre services extending in a north-south orientation.

7 DISCUSSION

7.1 Soil

7.1.1 Contamination

Parcel risk classifications have been assigned based on the nature, extent, intensity and spatial distribution of potentially contaminating activities identified within each parcel. While individual higher-risk activities or potentially contaminating sources may be present, the parcel classification reflects the overall likelihood that contamination is present across the parcel as a whole. Localised potentially contaminating activities (such as farm infrastructure, agricultural chemical storage, stockpiling areas or other discrete sources) have been assessed separately and may warrant targeted investigation where considered relevant; however, their presence does not necessarily elevate the overall parcel classification where the activity is spatially limited and unlikely to have resulted in widespread contamination across the broader parcel.

Based on the information provided by the site history review and site inspection, the following activities and potential contaminants have been listed in Table 7-1.

Table 7-1: Potential Contamination Sources

CONTAMINATION RISK	SOURCE / SITE ACTIVITIES	LOCATION	POTENTIAL CONTAMINANTS OF CONCERN
High	Former shearing shed, stockyards, stock ramps, drenching facility, retired above-ground fuel tank, collapsed rural structure with possible asbestos containing materials, accumulated wastes	Parcel 3 – western part of 848-950 Boundary Road, Truganina	TPH/TRH/BTEX, PAH, metals, nutrients, organochlorine and organophosphate pesticides, asbestos, pathogens
Medium	Localised historical filling / hard material stockpiling and unidentified imported material	Localised areas within Parcel 4 (localised stockpiling south/southeast of shed at 345 Middle Road, Truganina (Parcels 4 and 5)) and 11 (hard material stockpiles noted in aerial review and inspection)	Asbestos, metals, PAH, TPH/TRH, BTEX, nutrients, pesticides, demolition or construction related fill contaminants
Medium	Burn-off / waste disposal areas and localised waste materials	Parcels 11 – 690-810 Hopkins Road, Truganina; localised rural waste areas identified during inspection	PAH, metals, ash, asbestos fragments, localised hydrocarbons
Medium	Possible offsite impacts from adjacent active / former landfill, recycling and extractive industry uses to the north	Northern margin of the PSP area, particularly land adjoining Christies Road / Middle Road interface	Landfill gas, dissolved salts, nitrate, chloride, sulfate, PFAS, and other leachate related contaminants in groundwater
Considered Unlikely to be Potentially Contaminated	No specific potentially contaminating activities identified beyond broad agricultural use including grazing, animal husbandry, isolated areas of agricultural chemical storage and incidental farm infrastructure	Parcels 1, 2, 5 to 10 - Open paddock areas across the PSP where no notable structures, stockyards, storage areas, filling, burning or other suspect activities were identified in the desktop review or site inspection	No specific contaminants of concern identified at this stage beyond background agricultural influences

Beveridge Williams considers the main contamination risks to be associated with filling activities, burn-off areas, localised waste or scrap impacts, and potential offsite influences from nearby landfill activities.

Open paddock areas of Parcels 1, 2, 5, 6, 7, 8, 9 and 10, where no potentially contaminating activities were identified beyond broad agricultural use, are considered unlikely to be potentially contaminated. Medium-risk areas are associated with localised filling, stockpiling, burn-off or waste disposal areas and potential offsite landfill influences, while high-risk areas are associated with former stock handling, shearing, drenching and fuel-storage infrastructure identified within Parcel 3.

Final risk ratings for each parcel are based on the highest risk activity identified within that parcel, even where parts of the same parcel may be considered unlikely to be potentially contaminated.

7.2 Separation Distances from Adverse Amenity Uses

A desktop review of nearby adverse amenity impacts of the surrounding land uses identified for the Derrimut Fields PSP area was undertaken with reference to the EPA Victoria *Separation distance guideline* (2024) and *Landfill buffer guideline: Publication 1950* (2025). The most relevant adverse amenity source in proximity to the PSP is the active landfill and associated waste management activities located immediately north of the precinct along Christies Road / Middle Road.

A break down of the adverse amenities with listed separation/buffer distances has been provided in Table 7-2 below and shown on Figure 8:

Table 7-2: Adverse Amenity Separation Distances

ADDRESS	ACTIVITY	DISTANCE	RELEVANT SEPARATION DISTANCE GUIDELINE	POTENTIAL AMENITY IMPACT AND AFFECTED PARCELS
1100-1152 Christies Road, Ravenhall VIC 3023	Current and closed landfill activities: Municipal, commercial and industrial waste landfill/waste transfer activities	Immediately north of the site	EPA Publication 1950: Type 2 landfill — 500 m landfill gas buffer; up to 1,500 m amenity buffer for large putrescible landfills.	Yes, within the relevant EPA landfill buffer; <u>Landfill gas,</u> Parcels 4, 6, 7 & 10 <u>Odour, dust, noise and litter impacts.</u> Parcels 1 to 11
Riding Boundary Road, Deer Park VIC 3023	Basalt quarry and extractive industry	600 m north	Extractive industry / quarrying: 500 m recommended separation distance where blasting occurs; 250 m where no blasting occurs.	No, however, possible consideration to properties proximal to the relevant separation distances <u>Dust, noise and vibration impacts</u> Parcels 4 and 10

Associated recycling, landfill and extractive industry related activities north of the PSP area may also contribute localised amenity impacts; however, the landfill operations are considered the dominant adverse amenity source for the precinct.

The separation distance review is based on available documentation and the activities identified at the time of assessment. Where proposed development is within a relevant separation distance, or where an existing or proposed activity is not specifically listed in Table 7 of EPA Publication 1950, further advice should be sought from EPA Victoria and the responsible authority at the development stage. This should be informed by subsequent landfill gas, noise, dust and odour assessments, where relevant, to confirm the suitability of proposed sensitive uses, any required mitigation measures and appropriate interface design responses.

Where supported by relevant risk assessments, buffer and separation distances may be reduced to a minimum of 1,000m. Buildings and structures are also not supported within 500 m of the landfill without a detailed landfill gas risk assessment.

7.3 Geotechnical Considerations

7.3.1 Landslides and Erosion Risks

At a precinct scale, landslide risk within the Derrimut Fields PSP area is considered low due to the generally flat topography and basalt-derived landforms. However, localised erosion and minor instability may occur in proximity to Skeleton Creek and associated drainage lines, where concentrated surface water flow, local battering, vegetation condition and the potential presence of dispersive soils may influence soil stability.

- concentrated runoff and drainage along the Skeleton Creek corridor and local drainage lines;
- the potential presence of dispersive or sodic soils within alluvial and lower-lying areas; and
- localised anthropogenic disturbance, embankment battering and limited vegetation cover.

7.3.2 Acid Sulfate and Sodic Soils

Based on the desktop assessment, the Derrimut Fields PSP area is considered to present a extremely low risk of acid sulfate soils. However, a potential to moderate risk of sodic and dispersive soils remains across the precinct, with elevated risk likely in lower-lying and alluvial areas in proximity to Skeleton Creek. In addition, basalt-derived clay soils may also present moderate to high soil reactivity, which should be confirmed through targeted geotechnical testing during subsequent development stages.

7.4 Hydrological and Hydrogeological Considerations

7.4.1 Flood Risk

The principal flood-related constraint within the Derrimut Fields PSP area is associated with the Skeleton Creek corridor and its tributary drainage features. Land associated with this corridor is affected by the Urban Floodway Zone and Land Subject to Inundation Overlay, indicating a heightened potential for inundation, waterlogging and flood conveyance within these lower-lying areas.

Development is generally not encouraged within the mapped Skeleton Creek floodplain and associated low-lying land, which is more suited to drainage, open space and environmental corridor functions. Future development within the broader PSP should respond to overland flow paths, local drainage conditions and finished level requirements to the satisfaction of the relevant drainage authority.

7.4.2 Groundwater

Groundwater beneath the Derrimut Fields PSP area is likely to occur at shallow to moderate depth and may support a range of protected environmental values depending on salinity and yield. Based on the available desktop information, groundwater conditions present a moderate offsite risk in the northern part of the precinct due to the proximity of the active landfill and associated waste management activities, with potential contaminants including dissolved salts, nitrate, chloride, sulfate, PFAS and landfill gas related impacts. Onsite agricultural practices are considered to present a lower and more localised groundwater risk, primarily associated with nutrients, pesticides and minor hydrocarbon inputs.

7.5 Offsite Contamination Risks

The primary offsite contamination risk relevant to future development of the Derrimut Fields PSP is associated with the active landfill, recycling and related waste management activities immediately north of the precinct. While detailed assessment of these offsite sources is outside the scope of this report, the available audit and landfill register information indicates that landfill gas and contaminated groundwater may represent a potential constraint for land use planning and future development, particularly in the northern portion of the PSP and in areas closest to the landfill interface.

- Active landfill, transfer station, recycling and former landfill areas north of the PSP may contribute landfill gas and contaminated groundwater impacts, and may also create adverse amenity constraints for sensitive land uses.
- Industrial land to the east of the PSP presents a lower but relevant potential for future offsite contamination or land use conflict, depending on the nature of subsequent development and proposed sensitive uses within the precinct.

8 CONCLUSIONS

Based on the current risks identified across the PSP area and in line with PN30, Beveridge Williams recommends the following further investigation works will be required for site properties as part of development proposals and land use changes post PSP.

8.1 Contamination

In line with the recommended approach to assessing potentially contaminated land under Ministerial Direction 1 and Planning Note 30 the PSP area has been assessed to determine the recommended levels of assessment as part of the planning approval process (see Table 8-1).

Final risk ratings for each parcel are based on the highest risk activity identified on each parcel.

Table 8-1: Recommended Approach to Assessing Potentially Contaminated Land¹⁴

PROPOSED LAND USE		POTENTIAL FOR CONTAMINATION	
		HIGH	MEDIUM
Uses defined in Ministerial Direction No. 1, the EAO, and clause 13.04-1S			
- Sensitive uses: Residential use, childcare centre, kindergarten, preschool centre, primary school, even if ancillary to another use. - Children's playground - Secondary school	New use, or buildings and works associated with a new use	A	B
	Buildings and works associated with an existing use	B	B
Other land use			
- Open space - Agriculture - Retail or office - Industry or warehouse	New use, or buildings and works associated with a new or existing use	C	D

- Parcels are classified by the highest risk activity present on the site. In Line with Planning Note 30 the PSP area has been separated into the following areas and summarised in Table 7-1:

Considered Unlikely to be Potentially Contaminated - Open paddock areas where no potentially contaminating activities were identified beyond broad agricultural use.

For sites that are classified as 'Considered Unlikely to be Potentially Contaminated' there is no recommended action under PPN30 and the normal General Environmental Duty (GED) under the Environment Protection Act 2017 applies.

Where sensitive uses are proposed, as part of a planning scheme amendment and/or planning permit application, a Preliminary Site Investigation with some limited intrusive assessment, if considered appropriate, can confirm the contamination status of the land.

Medium Risk Areas - Areas affected by localised filling, stockpiling, waste disposal, burn-off activities or potential offsite landfill influences (areas with no marked high-risk activities, Figure 7):

- Sensitive Land Use (Residential, childcare, kindergarten etc., Children's playground, Secondary school): a preliminary site investigation and Preliminary Risk Screen Assessment will be required to confirm the site conditions and if an Environmental Audit is required
- Open space Agriculture Retail or office Industry or warehouse: a preliminary site investigation will be required to confirm the site conditions and suitability for the intended land use

¹⁴ Derived from Table 3: Planning Practice Note 30 for Potentially Contaminated Land (July 2021) (accessed June 2024)

High Risk Areas – Areas of notable filling, stockyards, shearing/sheep drenching (See Figure 7):

- Sensitive Land Use (Residential, childcare, kindergarten etc., Children's playground, Secondary school): An Environmental Audit is required
- Open space Agriculture Retail or office Industry or warehouse: A preliminary site investigation and Preliminary Risk Screen Assessment will be required to confirm the site conditions and if an Environmental Audit is required
- Areas of identified high risk activities with a limited extent of potential impacts such as standalone stockyards may be reduced to a medium risk through a targeted sampling and analysis for potential contamination.

8.1.1 Recommended Contamination Investigations

Table 7-1 identifies potential contamination sources by relative source risk, while Table 8-2 provides the overall parcel-level risk rating and recommended investigation response. Where higher-risk source categories are identified within parcels rated as "Considered Unlikely to be Potentially Contaminated" or "Medium", the difference reflects the localised, uncertain or unconfirmed nature of those source areas rather than confirmed parcel-wide contamination.

For Parcel 11, the Medium rating has been adopted because the identified sources, including historical filling, hard material stockpiling, burn-off areas, waste storage/disposal and disturbed ground, appear to be discrete and require targeted confirmation. This uncertainty is addressed through the recommended Detailed PSI and PRSA in Table 8-2, including intrusive investigation and further assessment where warranted.

Table 8-2 - Recommended Parcel-Specific Contamination Investigations

PARCEL ID/PROPERTY	RISK RATING ¹⁵	KEY SOURCE(S) ¹⁶		RECOMMENDED INVESTIGATION LEVEL
		ONSITE	OFFSITE	
1 – 744 Boundary Road	Considered Unlikely to be Potentially Contaminated	Other Activities: Agricultural land use with minor farm infrastructure; potential localised pesticide/herbicide use, nutrient application, farm waste or disturbed ground.		PSI with limited targeted soil sampling for metals, nutrients, pesticides/herbicides and hydrocarbons in areas of disturbance or farm infrastructure.
2 – 848-950 Boundary Road (east)	Considered Unlikely to be Potentially Contaminated	Other Activities: Agricultural land use with disturbed/gravelled access areas and potential minor isolated imported fill or surface disturbance.		PSI with targeted sampling where surface disturbance or imported material is suspected.

¹⁵ Considered Unlikely to be Potentially Contaminated: For sites that are classified as 'Not Potentially Contaminated' there is no recommended action under PPN30 and the normal General Environmental Duty (GED) under the Environment Protection Act 2017 applies. Where sensitive uses are proposed, as part of a planning scheme amendment and/or planning permit application, a Preliminary Site Investigation with some limited intrusive assessment, if considered appropriate, can confirm the contamination status of the land.

¹⁶ Sources based on risk rating in reference to Planning Note 30 Table 2.

PARCEL ID/PROPERTY	RISK RATING ¹⁵	KEY SOURCE(S) ¹⁶		RECOMMENDED INVESTIGATION LEVEL
		ONSITE	OFFSITE	
3 – 848-950 Boundary Road (west)	High	High: Former stockyards/shearing and animal handling infrastructure, potential drenching area/stock dipping sites Medium: Above-ground fuel storage Possible asbestos-containing materials, waste storage/disposal and disturbed/fill-affected ground.	Other Activities: Agricultural land use with disturbed/gravelled access areas and potential imported fill or surface disturbance.	Detailed PSI and PRSA with intrusive investigation targeted to suspect areas; analyse for metals, TPH/TRH/BTEX, PAHs, nutrients, pesticides and asbestos; consider groundwater assessment and assume Environmental Audit for sensitive uses.
4 – 345 Middle Road	Medium	Other Activities: Agricultural land use with disturbed areas and potential imported fill or surface disturbance.	Medium Risk: Potential offsite contamination/amenity influence from the northern landfill and waste-management interface.	PSI with targeted test pits and soil sampling near the shed, stockpiles, hardstand and disturbed ground; include metals, hydrocarbons, PAHs and asbestos in fill-affected areas.
5– 345 Middle Road	Considered Unlikely to be Potentially Contaminated	Other Activities: Agricultural land use with farm shed, hardstand/stockpiling, disturbed ground and potential imported fill; possible localised storage of chemicals, fuels or wastes associated with farm operations.		PSI with targeted assessment of former stock loading, farm infrastructure and historically disturbed areas
6, 7 and 8 – Christies Road parcels	Medium	Other Activities: Agricultural land use with disturbed areas and potential imported fill or surface disturbance.	Medium Risk: Potential offsite contamination/amenity influence from the northern landfill and waste-management interface.	PSI to confirm general site conditions, with later-stage consideration of landfill gas risk and/or groundwater assessment for land closest to the northern interface, particularly if sensitive uses are proposed. If risks are confirmed, recommendations are to be made with regard to the suitable level of assessment required (PRSA/Audit)

PARCEL ID/PROPERTY	RISK RATING ¹⁵	KEY SOURCE(S) ¹⁶		RECOMMENDED INVESTIGATION LEVEL
		ONSITE	OFFSITE	
9 – 1004-1054 Christies Road (part)	Considered Unlikely to be Potentially Contaminated	Other Activities: Agricultural chemical storage area and surrounding agricultural land; potential pesticide/herbicide storage/use, nutrient application and minor hydrocarbon sources.		PSI targeted to the fenced storage area with soil sampling for pesticides/herbicides, metals, nutrients and hydrocarbons. See Photograph 21: Site Walkover – Parcel 9 (W) shown in Appendix D.
10 – 619-653 Hopkins Road	Considered Unlikely to be Potentially Contaminated	Other Activities: Grazing/agricultural land use with stock handling infrastructure (loading ramp) and possible former aerated-waters/manufacturing-related activity (unconfirmed onsite activity); potential isolated chemical, fuel, waste, fill or disturbed-ground sources.	Other Activities: Agricultural chemical storage area and surrounding agricultural land; potential pesticide/herbicide storage/use, nutrient application and minor hydrocarbon sources.	PSI with targeted assessment of former stock loading, farm infrastructure and historically disturbed areas; consider further targeted assessment if a former aerated waters-related footprint is identified.
11 – 690-810 Hopkins Road	Medium	Medium: burn-off area, waste storage/disposal, stockpiles, possible fill/work areas and disturbed ground; Other Activities: Sheds/storage compounds, horse agistment, potential asbestos, metals, hydrocarbons, PAHs, nutrients and pesticides.	Other Activities: Agricultural land use with disturbed areas and potential imported fill or surface disturbance.	Detailed PSI and PRSA incorporating targeted intrusive investigation of sheds and storage compounds, stockpiles, burn-off and waste-disposal areas, potential filling and other disturbed ground. Analysis should include metals, hydrocarbons, PAHs, asbestos, nutrients and pesticides. Groundwater and/or surface-water assessment should also be considered where hydraulic connectivity with Skeleton Creek or the northern landfill interface may be relevant

8.2 Geotechnical Considerations

At the time of this investigation, the conclusions are based on a preliminary desktop review and indicative site conditions only. Given the scale of the Derimut Fields PSP and the identified geotechnical and hydrogeological constraints, further geotechnical assessment should be undertaken during subsequent development stages to inform detailed design. This should include a physical assessment using boreholes and/or test pits with appropriate in situ and laboratory testing to confirm the geotechnical and land capability conclusions.

Acid Sulfate Soil Risk – extremely low probability of acid sulphate soil occurrence (1-5%) across the PSP based on available regional mapping.

Sodic and Dispersive Soil Risk – Potential to moderate across the PSP, with elevated risk likely in lower-lying and alluvial areas in proximity to Skeleton Creek.

Landslides and Erosion Risk – Generally low at a precinct scale, with localised erosion risk associated with Skeleton Creek, drainage lines and disturbed lower-lying land.

Based on the desktop review, further assessment at the PSP stage of acid sulfate soils, sodic/dispersive soils, landslide potential and erosion risk is not considered necessary. Based on the above risk profiles additional targeted assessment, where required, should therefore be undertaken as part of development-specific design and geotechnical investigations rather than as an additional PSP-stage requirement.

As a guide, targeted geotechnical investigations should be focused on areas adjoining Skeleton Creek and other identified lower-lying or potentially dispersive landforms, together with representative testing across the broader developable parts of the PSP. Investigation spacing and methodology should be determined by the geotechnical engineer having regard to the proposed development layout, anticipated earthworks and the need to characterise soil reactivity, dispersivity and subsurface conditions.

It is considered that the following broad geotechnical laboratory testing across the PSP is considered appropriate:

- Atterberg Limit
- California Bearing Ratio
- Shrink Swell
- Particle size distribution
- Acid Sulfate Soil Screen
- Soil aggressivity testing (pH, sulfate and chloride)
- Emerson Class

It is also considered prudent to undertake targeted testing for sodicity, dispersion and soil aggressivity, particularly in areas adjacent to Skeleton Creek and within lower-lying alluvial land, to confirm whether management measures such as earthworks controls, stabilisation or corrosion-resistant design may be required.

8.2.1 Sodic/Dispersive Soils, Landslides and Erosion Risks

The majority of the PSP area is considered to present a potential to moderate risk of sodic/dispersive soils and reactive basalt-derived clay soils. Elevated risk is most likely in proximity to Skeleton Creek and within lower-lying or alluvial landforms where erosion processes, surface runoff concentration and soil dispersion are more likely to occur. Further site reconnaissance and targeted intrusive investigation of these areas should therefore be undertaken during the subsequent development process.

Where sodic or dispersive soils are confirmed, an appropriate soil management plan should be prepared to address excavation handling, temporary erosion protection, stabilisation requirements, and implications for pavement, earthworks and foundation design.

- Gypsum/liming rates
- Engineered stabilisation requirements
- Considerations for foundation and pavement design

8.3 Adverse Amenity Impacts

Adverse amenity constraints relevant to the Derrimut Fields PSP are principally associated with the active landfill and related waste management activities immediately north of the precinct. Based on the available information, landfill-related separation distances and amenity risks associated with odour, dust, noise and landfill gas should be considered in future planning, particularly in the event that sensitive land uses are proposed along the northern portion of the PSP.

As per EPA Publication 1950 a recommended 1500m landfill buffer is recommended from sensitive land uses for odour, dust and noise. Future planning and detailed assessment should confirm the extent of any applicable landfill buffer and determine whether a risk-based reduction of the separation distances to a minimum of 1,000m is supportable through appropriate noise, odour and dust assessments from the landfill.

In addition, in line with the recommended landfill gas buffer distances (EPA Publication 1950), a landfill gas assessment should be undertaken within 500m of the listed landfill in line with Section 9.1.2 of EPA publication 1950 at the development phase to determine the risk to the proposed developed and any landfill gas protection / additional mitigation measures required.

Based on the identified nearby adverse amenity sources and the indicative separation distances summarised in Table 5-2, Beveridge Williams considers the following parcel-specific amenity risk ratings and recommended planning responses to be appropriate for future precinct planning.

Table 8-3 - Recommended Parcel-Specific Amenity Risk Management

PARCEL ID/PROPERTY	AMENITY RISK RATING	KEY AMENITY SOURCE(S)	RECOMMENDED PLANNING / ASSESSMENT RESPONSE
1 – 744 Boundary Road	Medium	Northern landfill and waste management interface; broader industrial / warehousing locality	Consider landfill-related amenity constraints during development planning; confirm whether sensitive uses fall within any applicable landfill gas, odour, dust or noise influence area and adopt standard interface design and buffer responses where required.
2 – 848-950 Boundary Road (east)	Medium	Northern landfill / recycling interface and nearby industrial land	Assess landfill-related amenity implications at the detailed planning stage, particularly for sensitive uses; standard built-form setbacks and interface treatments should be considered where development fronts Boundary Road and northern interface areas.
3 – 848-950 Boundary Road (west)	Medium	Northern landfill / recycling interface and nearby industrial land	As for Parcel 2, with additional consideration of interface design for any future sensitive uses located toward the northern or north-eastern extent of the parcel.
4 – 345 Middle Road	High	Immediate northern landfill / waste management interface, including landfill gas and broader odour, dust and noise buffer considerations	Detailed amenity assessment is recommended before sensitive land uses are confirmed. Future planning should verify landfill gas protection requirements, confirm whether landfill odour / dust / noise buffers affect the land, and incorporate interface setbacks, mitigation and staged land use planning as required.
5 – 345 Middle Road	Medium	Northern landfill / recycling interface and nearby industrial land	Consider landfill-related amenity constraints during development planning; confirm whether sensitive uses fall within any applicable landfill gas, odour, dust or noise influence area and adopt standard interface design and buffer responses where required.
6 & 7 – Christies Road parcels	High	Closest parcels to the northern landfill, recycling, asphalt plant and broader waste / industrial interface	These parcels should be treated as the highest amenity interface land within the PSP. Detailed assessment of landfill gas, odour, dust and noise constraints is recommended, together with confirmation of applicable buffer distances and mitigation requirements before any sensitive land use is advanced.
8 – Christies Road parcels	Medium	Northern landfill / recycling interface and nearby industrial land	Consider landfill-related amenity constraints during development planning; confirm whether sensitive uses fall within any applicable landfill gas, odour, dust or noise influence area and adopt standard interface design and buffer responses where required.

PARCEL ID/PROPERTY	AMENITY RISK RATING	KEY AMENITY SOURCE(S)	RECOMMENDED PLANNING / ASSESSMENT RESPONSE
9 – 1004-1054 Christies Road (part)	High	Northern landfill and asphalt plant interface; waste management and industrial activity to the north	Detailed amenity assessment is recommended, particularly where sensitive uses may be proposed in the northern portion of the parcel. Confirm buffer applicability and mitigation requirements for landfill and asphalt plant related odour, dust and noise impacts.
10 – 619-653 Hopkins Road	High	Immediate northern landfill / waste management and proximal quarry activities interface, including landfill gas and broader odour, dust and noise buffer considerations	Amenity constraints should be considered in precinct planning, although the parcel is less directly exposed than the Christies Road / Middle Road interface land. Confirm whether sensitive uses require further amenity review during detailed planning.
11 – 690-810 Hopkins Road	Medium	Landfill-related amenity influence, Skeleton Creek corridor interface and broader industrial / warehousing locality	Future planning should consider landfill-related amenity and interface design requirements, particularly for any sensitive land use proposed in the northern or north-eastern parts of the parcel.

In summary, adverse amenity impacts do not preclude future development of the Derrimut Fields PSP, but they represent an important planning and interface constraint, particularly for land closest to the northern landfill, waste management and asphalt plant uses. The parcel-specific amenity risk ratings in Table 8-3 should therefore be used to inform future precinct layout, staging and the location of sensitive land uses, with more detailed amenity assessment and mitigation adopted where development is proposed within the higher-risk northern interface areas.

BEVERIDGE WILLIAMS & CO PTY LTD

Approved for issue by



Adam Hayes

Principal Environmental Scientist

FIGURES

FIGURE 1 – SITE LOCATION PLAN

FIGURE 2 – REGIONAL GEOLOGY, TOPOGRAPHY AND WATERCOURSE PLAN

FIGURE 3 – REGIONAL GROUNDWATER PLAN – DEPTH TO WATER

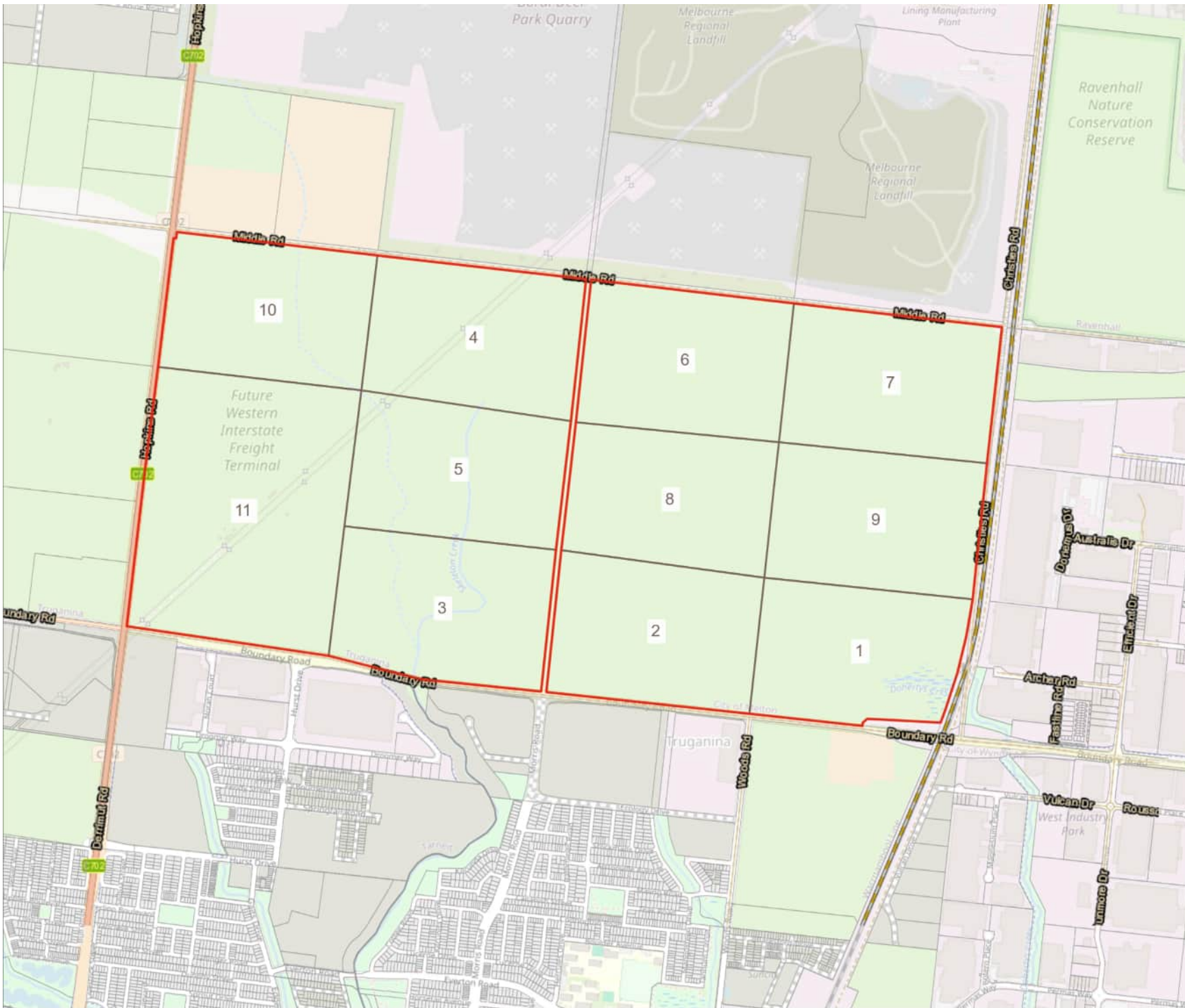
FIGURE 4 – REGIONAL GROUNDWATER PLAN – GROUNDWATER SALINITY

FIGURE 5 – SURFACE WATER PLAN

FIGURE 6 – SITE FEATURE LOCATION PLAN

FIGURE 7 – PARCEL RISK CLASSIFICATION (ONSITE ACTIVITIES)

FIGURE 8 – PARCEL AMENITY RISK FROM OFFSITE ACTIVITIES (LANDFILL BUFFER)





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Site Location Plan

Hopkins Rd, Truganina VIC, Australia

Department of Transport and Planning

☒ Site

☐ Parcel ID

0 250 m 500 m

Drawn **L.Tripp**

Approved: **A.Hayes**

Date **06-05-2026**

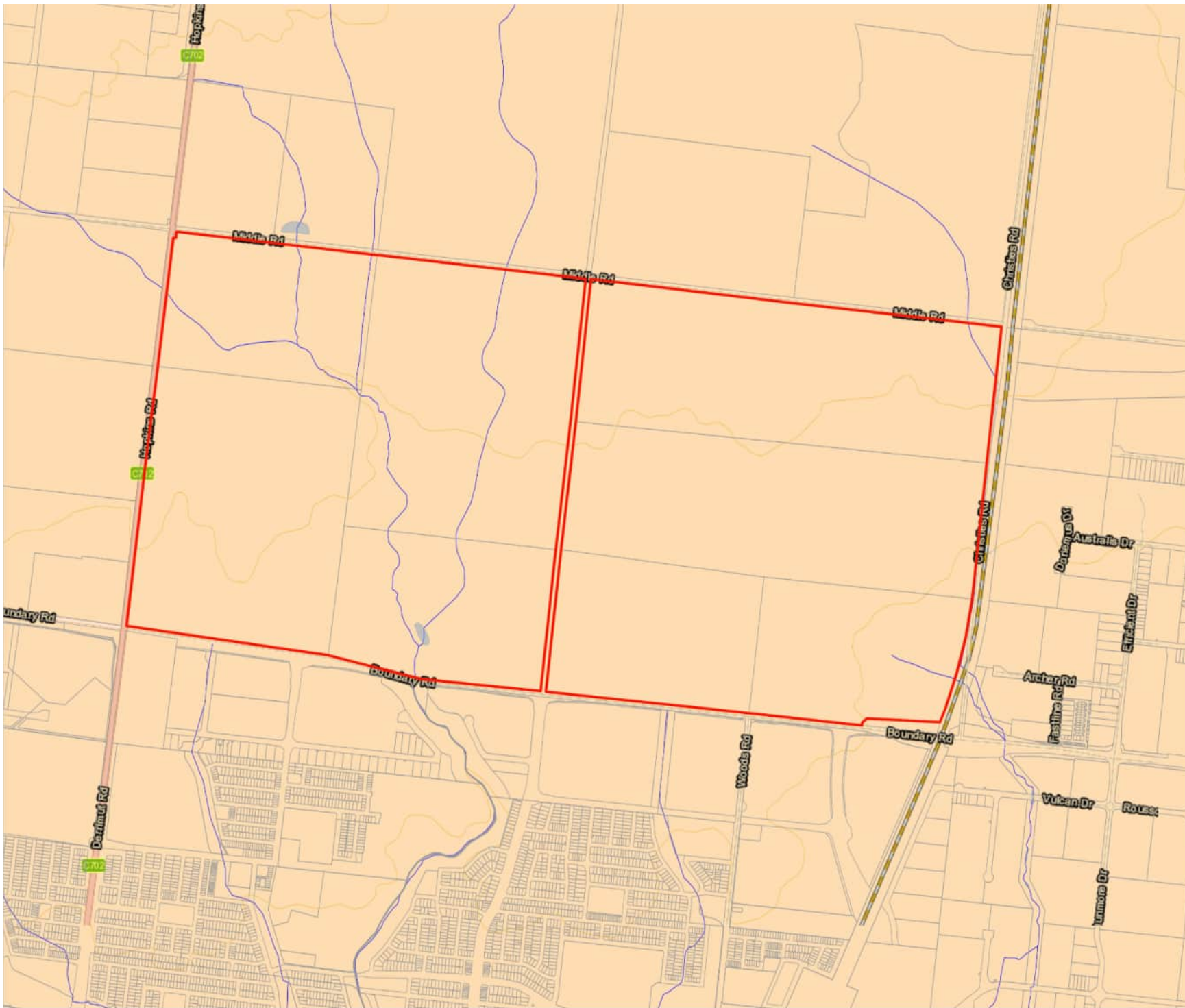
Image Source © OpenStreetMap contributors; Esri; HERE, Garmin, (c) DSM, Creative Commons Attribution 4.0 International

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Project Ref. **2600398**

Figure No. **1** Rev**0**







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Regional Geology, Topography and Watercourse Plan
Hopkins Rd, Truganina VIC, Australia

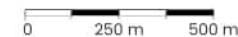
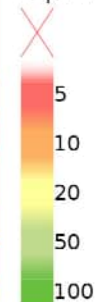
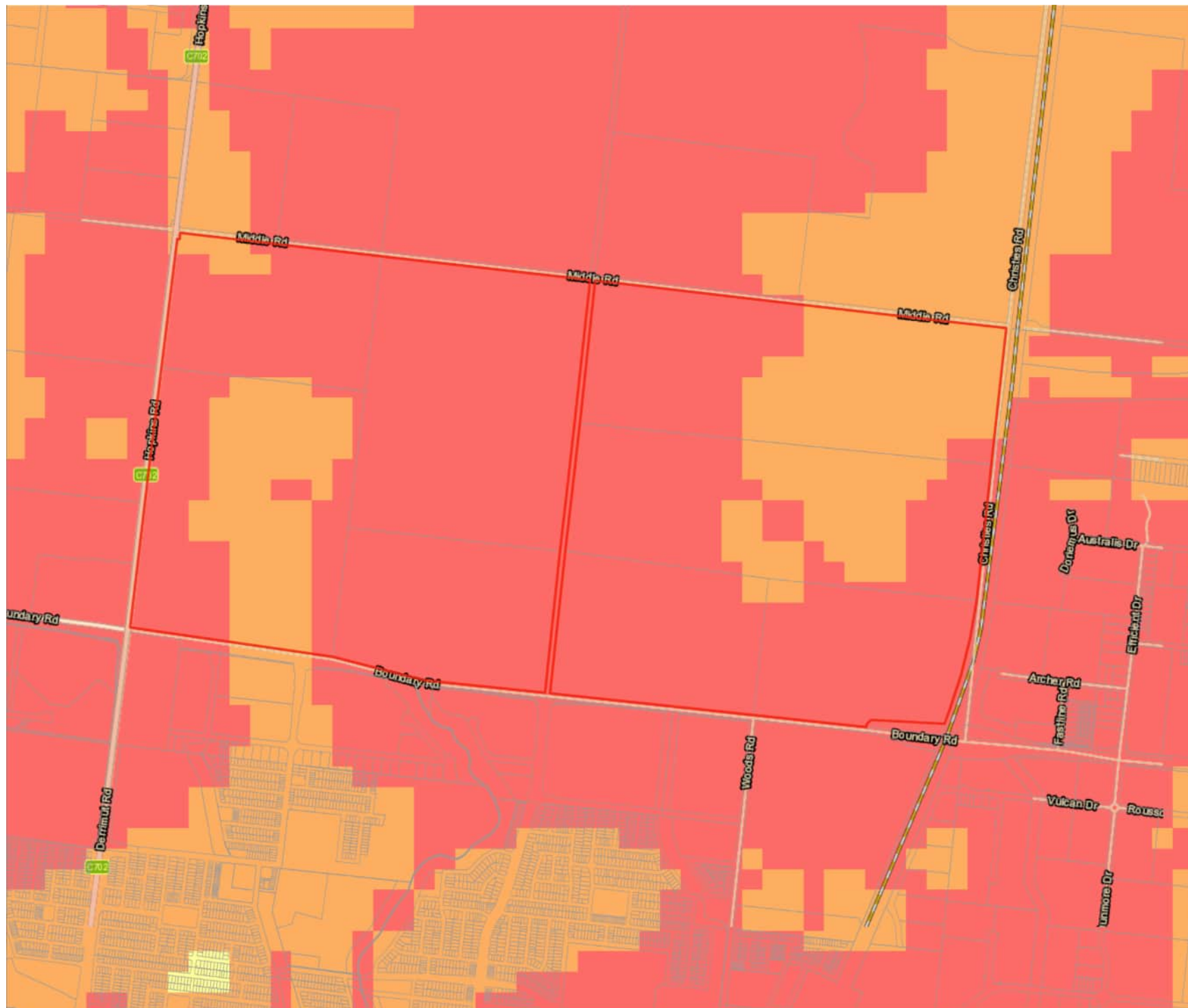
Department of Transport and Planning

 Site Boundary

0 250 m 500 m

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Approved: A.Hayes	
Date 06-05-2026	
Image Source Land Use Victoria, Creative Commons Attribution 4.0 International, Esri, HERE, Garmin, (c) OSM	
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Figure No. 2	Rev 0





Drawn L.Tripp

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Date 06-05-2026

Image Source Land Use Victoria; Visualising Victoria's
Groundwater, Esri, HERE, Garmin, (c) OSM,
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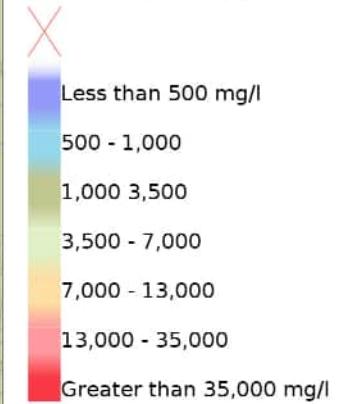
Project Ref. 2600398

Figure No. 3

Rev0



Site Boundary
CeRDI GeoServer Web Map
Groundwater Salinity (DELWP)



0 250 m 500 m

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Approved: A.Hayes

Date 06-05-2026

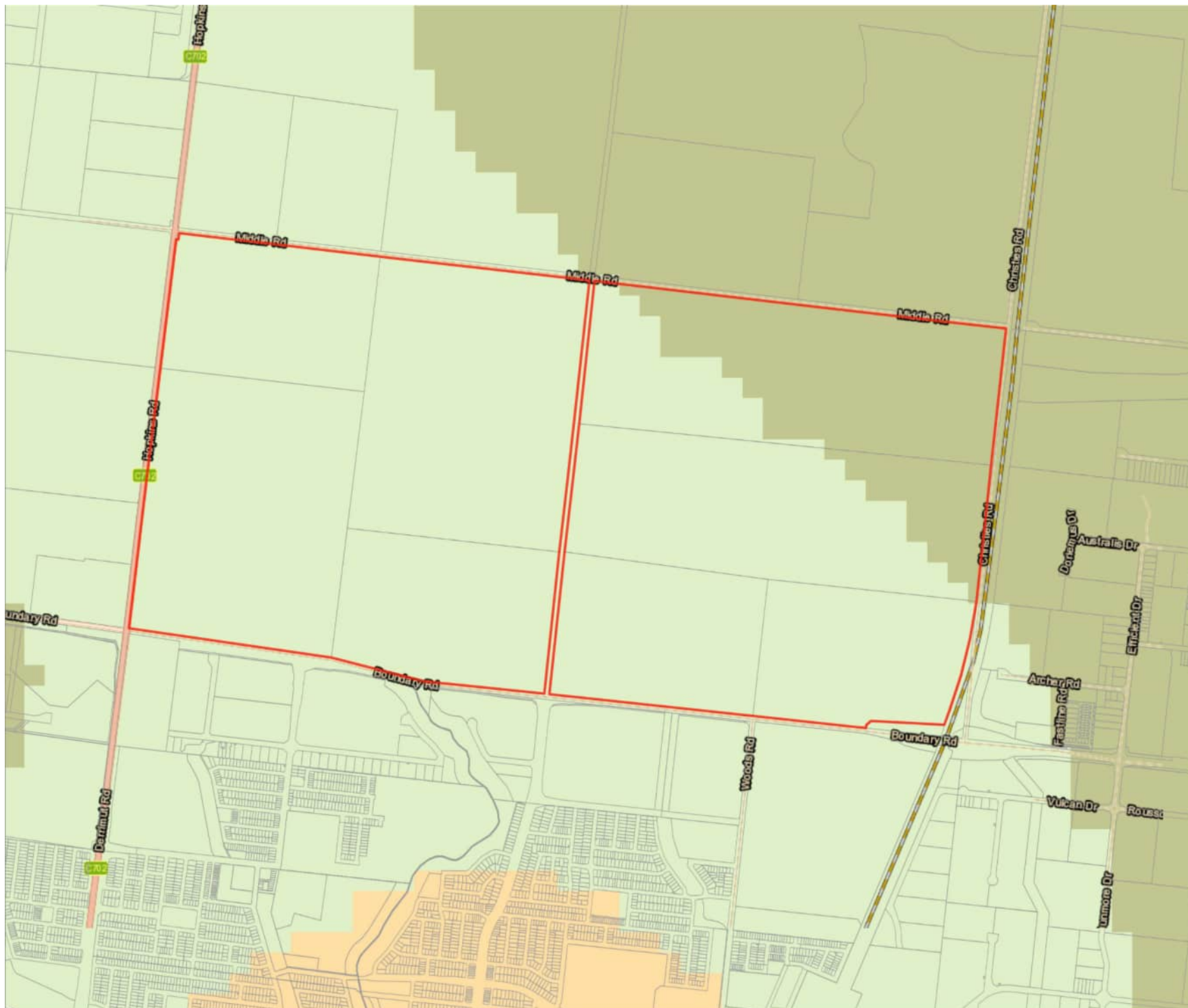
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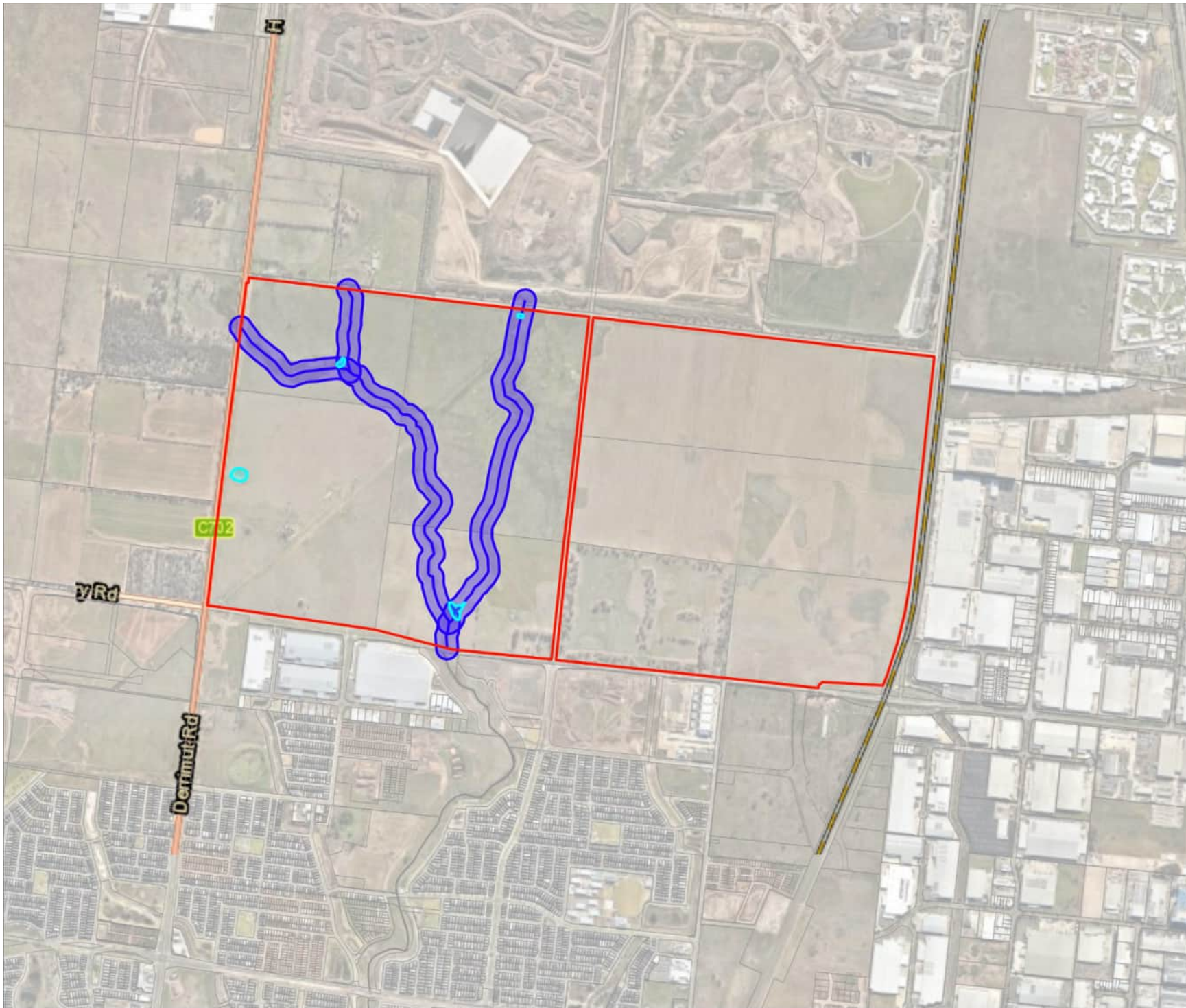
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Project Ref. 2600398

Figure No. 4

Rev0







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Surface Water Plan

Hopkins Rd, Truganina VIC, Australia

Department of Transport and Planning

Site Boundary

Dam

50m buffer around watercourse

Skeleton Creek

0

250 m

500 m

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Project Ref. 2600398	
Figure No. 5	Rev A



N

- Site Boundary
- ◆ Dam
- Skeleton Creek
- ◆ Site Features
- Asphalt Batching Plant
- ◆ Landfill
- 500m buffer around Landfill
- 1500m buffer around Landfill
- 500m buffer around Quarry/Extractive Industry
- ◆ Concrete Batching/Asphalt Plant
- ◆ Works Area
- 500m buffer around Concrete Batching/Asphalt Plant
- Metal Manufacturing
- 500m buffer around metal manufacturing

0 250 m 500 m

Drawn **L.Tripp**

Approved: **A.Hayes**

Date **06-05-2026**

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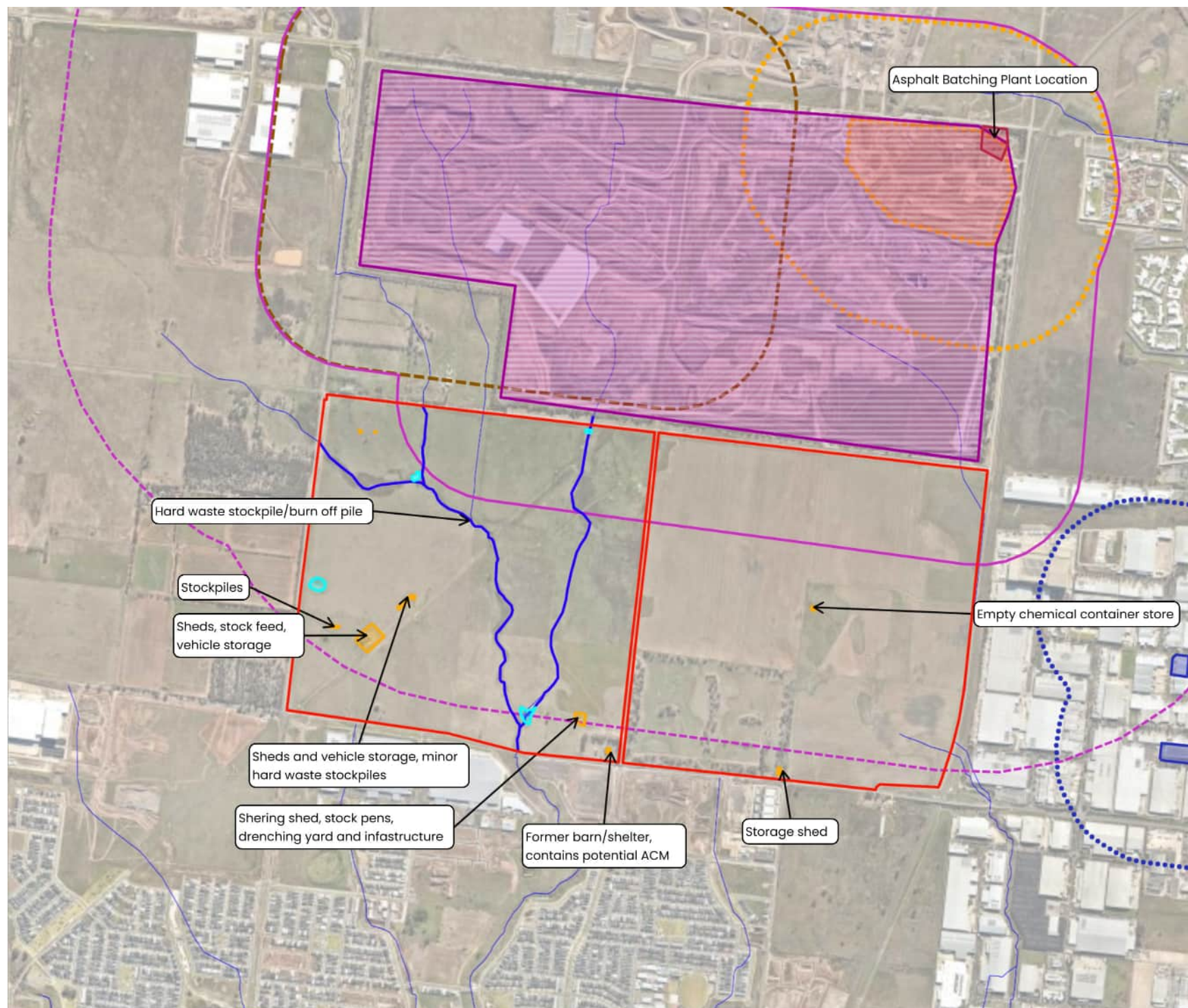
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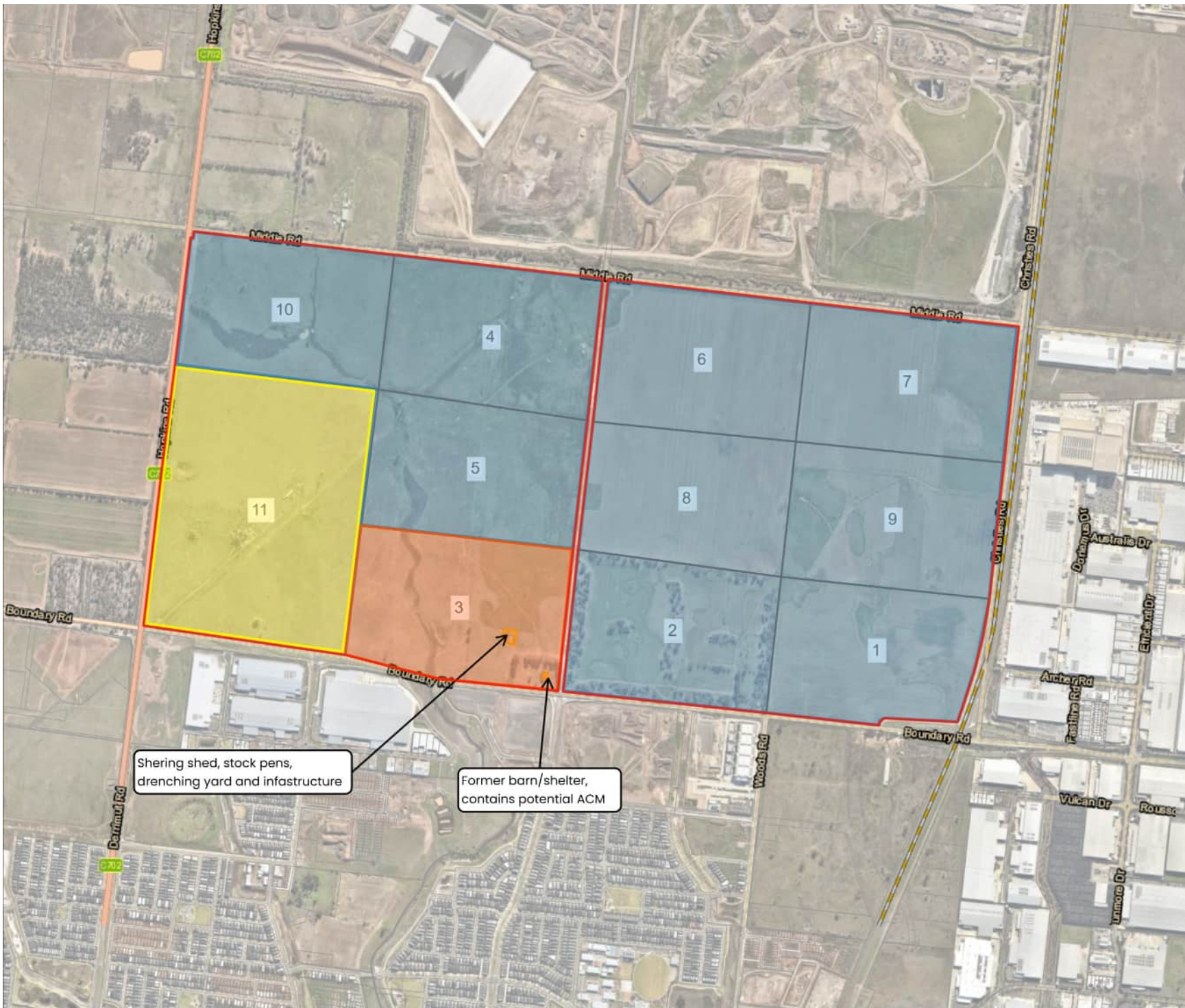
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Project Ref. **2600398**

Figure No. **6**

Rev**0**



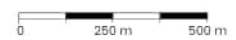


Parcels Risk Classification (Onsite Activities)

Hopkins Rd, Truganina VIC, Australia

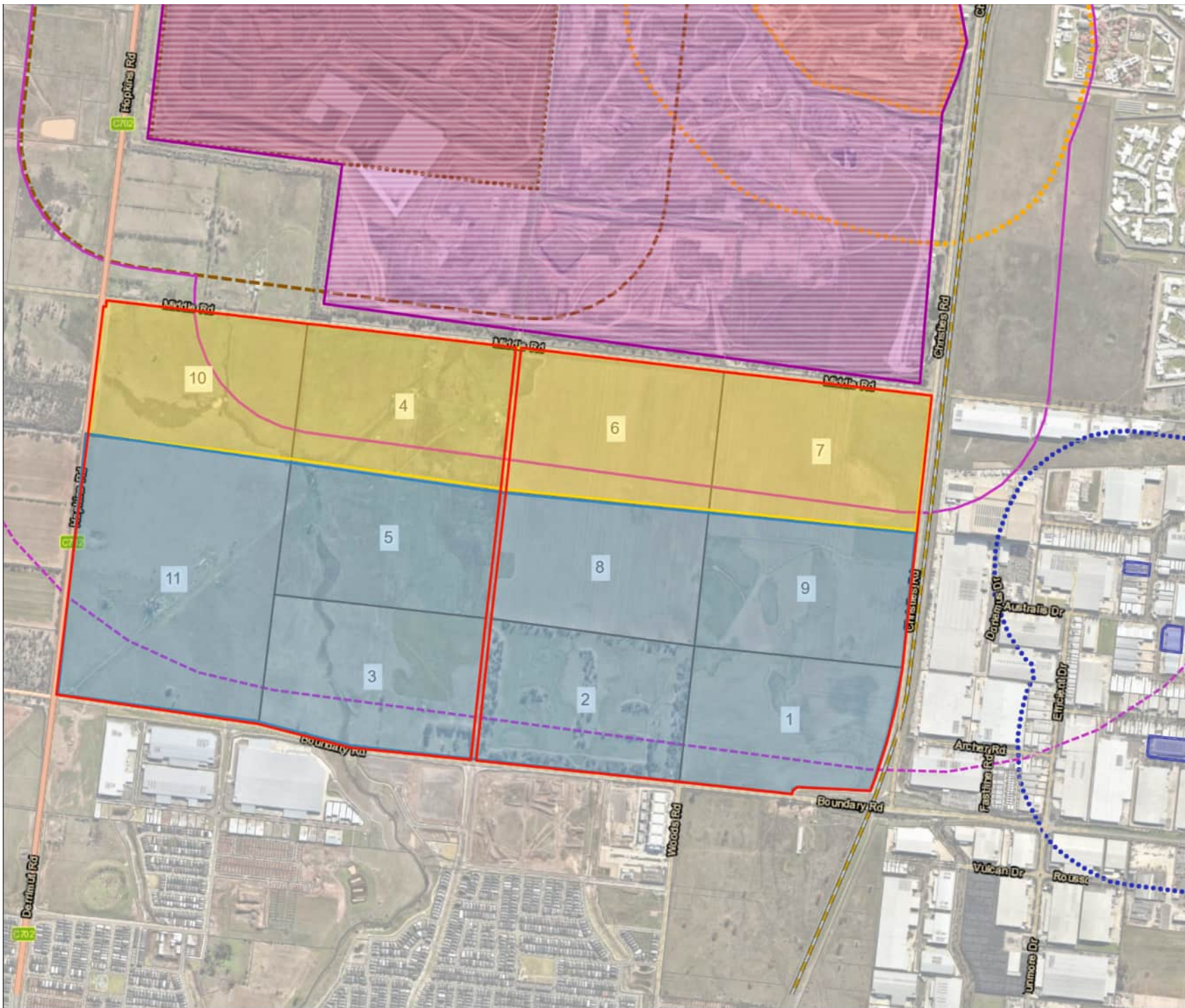
Department of Transport and Planning

- Site Boundary
- High risk Parcel
- Medium Risk Parcel
- Considered Unlikely to be Potentially Contaminated
- Parcel ID
- Site Features



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Figure No. 7	Rev0







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**Parcel Amenity Risk from Offsite Activities
(Landfill Buffer)**

Hopkins Rd, Truganina VIC, Australia

Department of Transport and Planning

Site Boundary

Amenity Risk - Odours/Dust

Amenity Risk - Landfill Gas

Parcel ID

Landfill

500m buffer around Landfill

1500m buffer around Landfill

Quarry/Extractive Industry

500m buffer around Quarry/Extractive Industry

Concrete Batching/Asphalt Plant

Works Area

500m buffer around Concrete Batching/Asphalt Plant

Metal Manufacturing

500m buffer around metal manufacturing



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Approved: A.Hayes	
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Project Ref. 2600398	
Figure No. 8	Rev 0



SITE INSPECTION PHOTOGRAPHS



Photograph 1: Site Walkover - Parcel 1 (N)

View of parcel 1 from north boundary, the parcel appears to have been cropped for silage and contained no structures with the exception of a small shed. Several groundwater monitoring wells were observed across the site.



Photograph 2: Site Walkover - Parcel 1 (N)

View of parcel 1 from north boundary. Several groundwater monitoring wells were observed across the site.



Photograph 3: Site Walkover - Parcel 2 (SE) - 3

View of the south boundary of Parcel 2 near the parcel entrance towards Boundary Road, gravel/graded vehicle tracks extended to the north and east.



Photograph 4: Site Walkover - Parcel 2 (SW) - 1

View of parcel 2 from south boundary, the parcel appears to have been cropped for silage and contained no structures.



Photograph 5: Site Walkover - Parcel 2 (SW) - 2

View of parcel 2 west boundary towards Parcel 3, the road easement was observed to extend to the north.



Photograph 6: Site Walkover - Parcel 3 (SE) - 2

View of the southeast portion of Parcel 3. A former barn/shelter remained present, partially collapsed.



Photograph 7: Site Walkover - Parcel 3 (SE) - 2

Internal space of former barn/shelter, partially collapsed in the southeast portion of Parcel 3.



Photograph 8: Site Walkover - Parcel 3 (SE) - 2

Potential asbestos containing construction material within the collapsed barn/storage shed in Parcel 3



Photograph 9: Site Walkover - Parcel 3 (SE) - 2

Former stock ramp and stockyard along the south boundary of Parcel 3 and west of the collapsed barn/storage shed



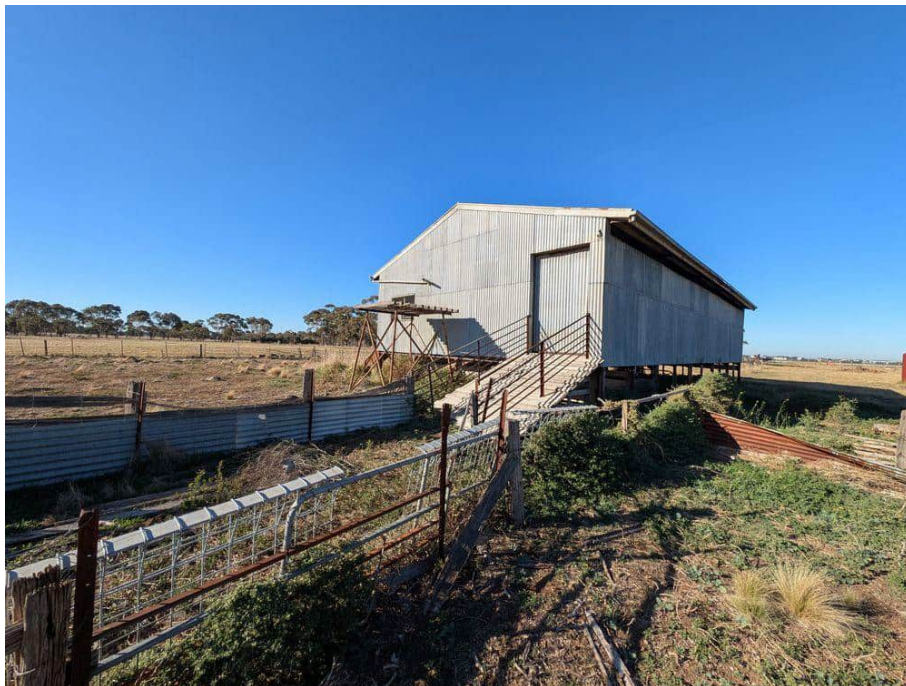
Photograph 10: Site Walkover - Parcel 3 (SE) - 3

Retired above ground fuel tank north of the collapsed barn/storage shed in Parcel 3.



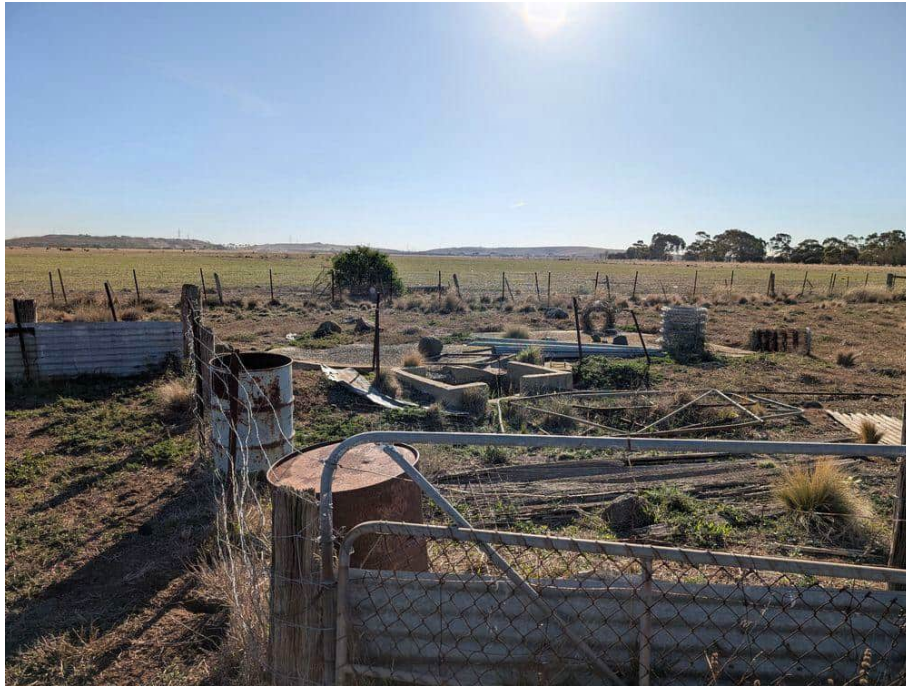
Photograph 11: Site Walkover - Parcel 3 (E) – 2

Former Shearing Shed located in the south east portion of parcel 3.



Photograph 12: Site Walkover - Parcel 3 (E) - 2

North extent of the Former Shearing Shed located in the south east portion of parcel 3. A ramp leading down to a stock yard with solid waste (sheet metal, wire, galvanised steel tubing)



Photograph 13: Site Walkover - Parcel 3 (E) - 2

View to the north across the stock yard with solid waste (sheet metal, wire, galvanised steel tubing).
A large concrete tank/pad was present



Photograph 14: Site Walkover - Parcel 3 (E) - 2

View of the large concrete tank/pad with potential drenching pit.



Photograph 15: Site Walkover - Parcel 3 (E) - 2

View of the concrete dripping run extending west from the large concrete tank.



Photograph 16: Site Walkover - Parcel 3 (S)

View of the south west portion of Parcel 3 overlooking drainage catchment dam.



Photograph 17: Site Walkover - Parcel 3 (S)

View of the southwest side of the drainage dam wall towards Skeleton Creek.



Photograph 18: Site Walkover - Parcel 4 (N)

Storage shed for farm equipment in the north east portion of parcel 4.



Photograph 19: Site Walkover - Parcel 9 (SW)

View of Parcel 9 towards the east from the northeast portion, the parcel has been used for cropping/silage with some stock (sheep) grazing



Photograph 20: Site Walkover - Parcel 9 (SW)

View of Parcel 9 towards the north from the south west portion, the parcel has been used for cropping/silage.



Photograph 21: Site Walkover - Parcel 9 (W)

View of Parcel 9 towards the west, water tank and used herbicide containers (UltraMax, Roundup, GlenWet 1000, EVO 640, Trifluralin 420, TriflurX and paraquat 250) were stored within a wire fenced area.



Photograph 22: Site Walkover - Parcel 10 (N)

Parcel 10 remained grassed for stock (cattle) grazing. No structures were observed, with the exception of a rock wall and temporary stock loading ramp.



Photograph 23: Site Walkover - Parcel 11 (SW)

View of the entry from the south west corner of Parcel 11. A gravel driveway extended through the site to the north east corner along the powerline easement. The majority of the parcel comprised grassed paddocks used to house horses.



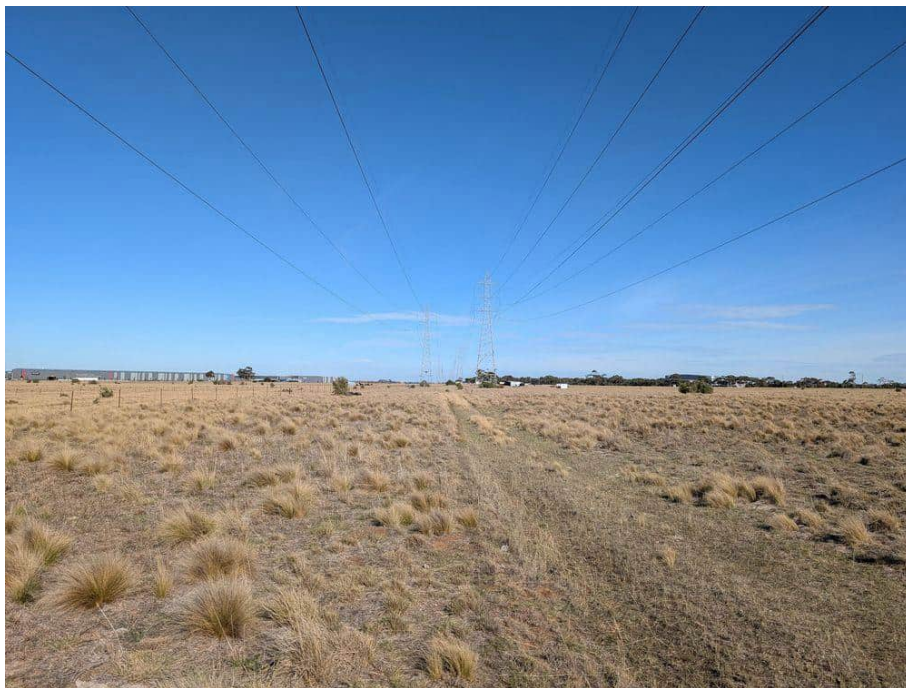
Photograph 24: Site Walkover - Parcel 11 (S)

Central portion of the site contained several storage and vehicle sheds.



Photograph 25: Site Walkover - Parcel 11 (Centre) - 1

Central portion of the site contained several storage and vehicle sheds.



Photograph 26: Site Walkover - Parcel 11 (NE) - 1

The north portion of the site was grassed with the driveway no longer gravelled.



Photograph 27: Site Walkover - Parcel 11 (NE) - 1

A small scrap wood waste burn off pile was present near the north portion of the parcel.



Site Walkover - Parcel 11 (NE) - 1

The majority of the parcel was grassed and shallow weathered rock (basaltic) was observed at surface



Site Walkover - Parcel 11 (NE) - 2

A stormwater/sewer pipe was observed adjacent to the northeast corner of the parcel.



Photograph 28: Site Walkover - Parcel 11 (NE) - 3

Skeleton Creek alignment was observed to run alongside the north boundary of the parcel from the north east corner.



Photograph 29: Site Walkover - Parcel 2, 3, 4, 5, 6 & 8 Easement

The easement between parcels 2/8 and 3/5 were observed to include fibre services extending north-south