Aerial Imagery 2021
Melton East Psp (Section 3 of 5), Melton, VIC 3337





Aerial Imagery 2017
Melton East Psp (Section 3 of 5), Melton, VIC 3337



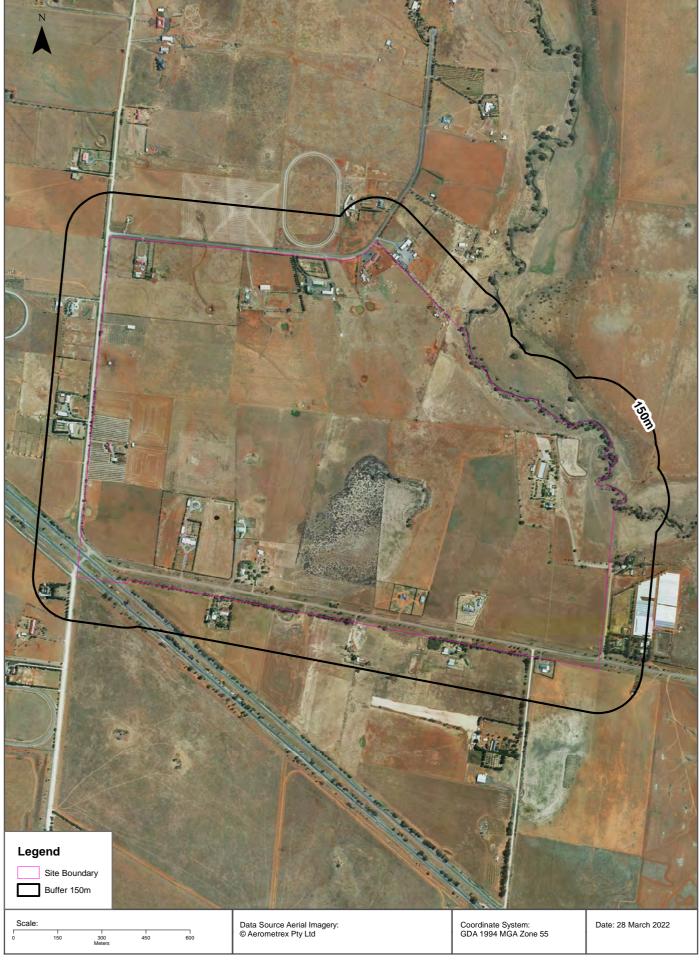




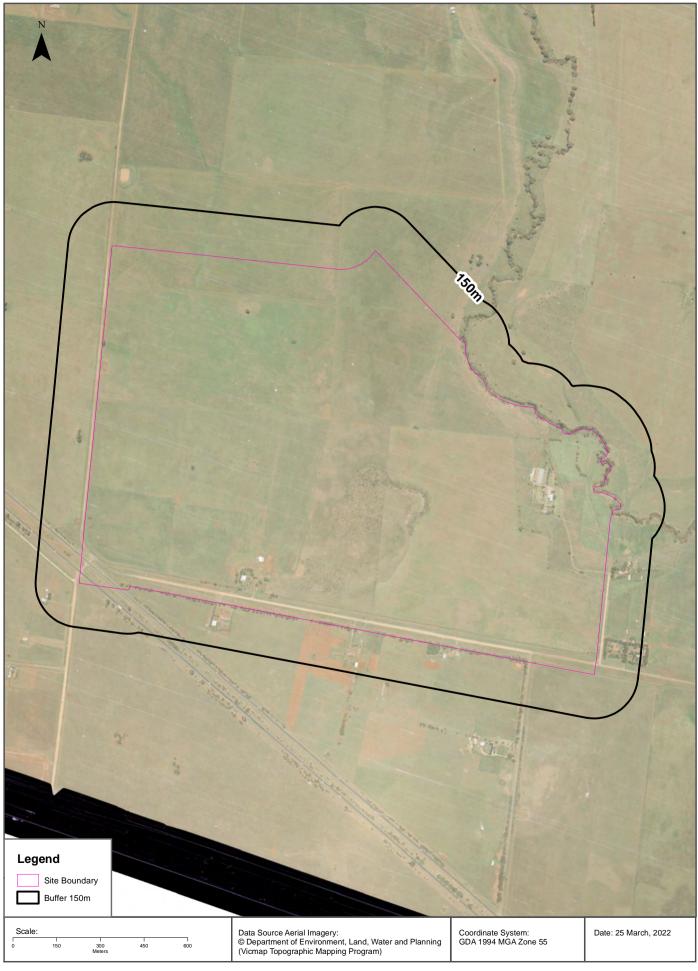


Aerial Imagery 2009
Melton East Psp (Section 3 of 5), Melton, VIC 3337





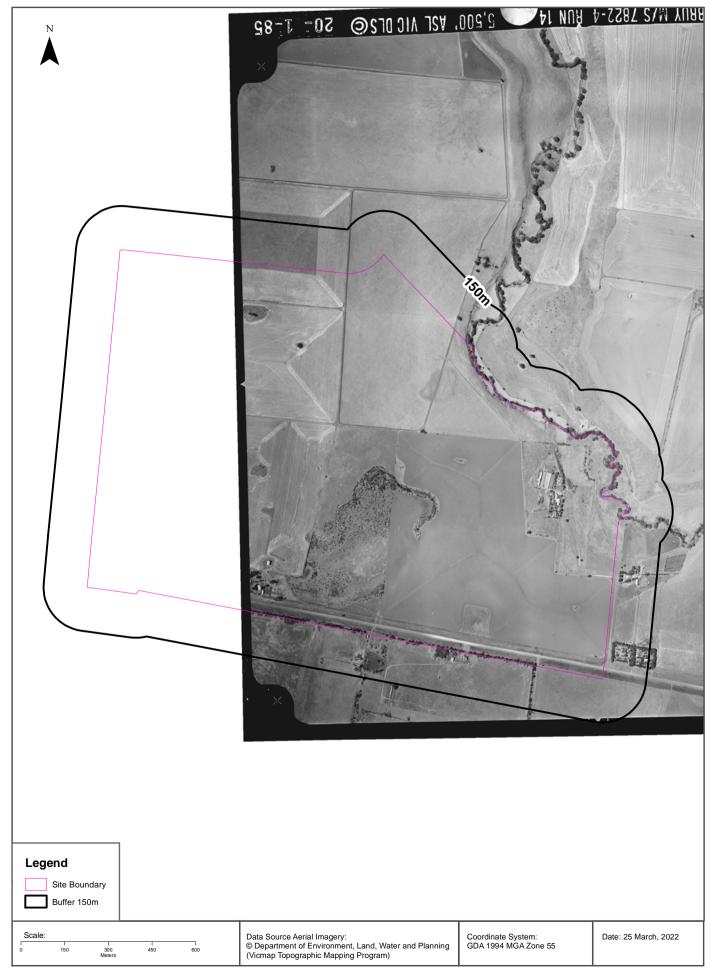




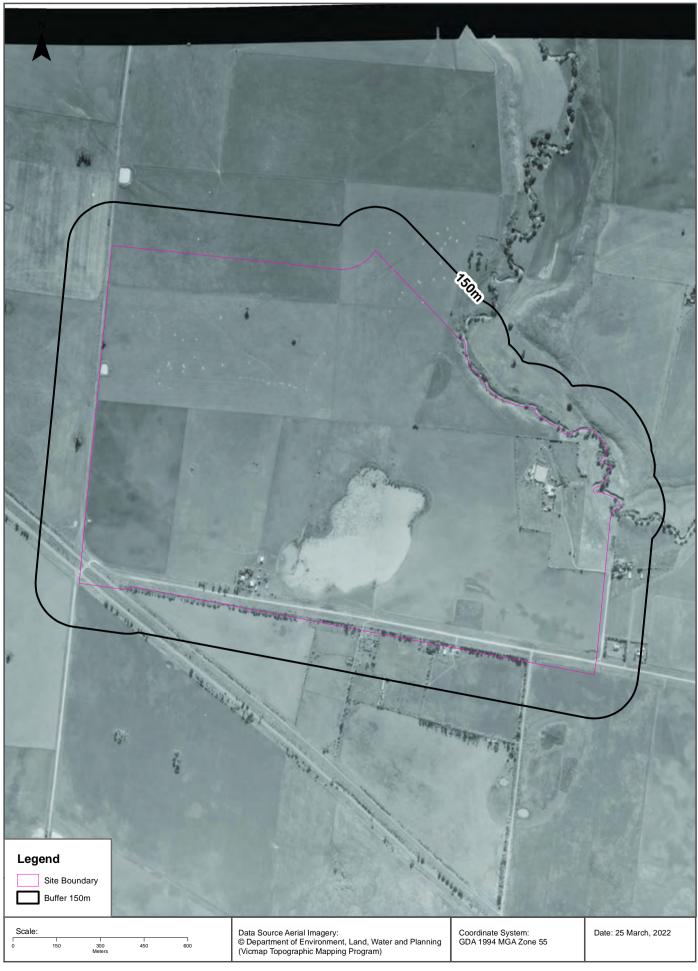




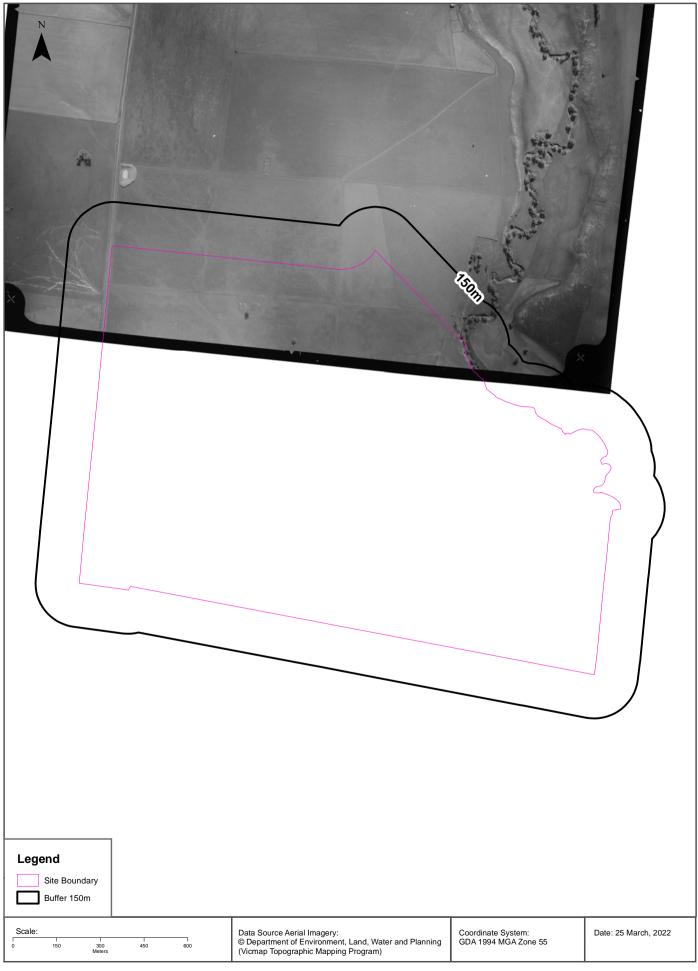




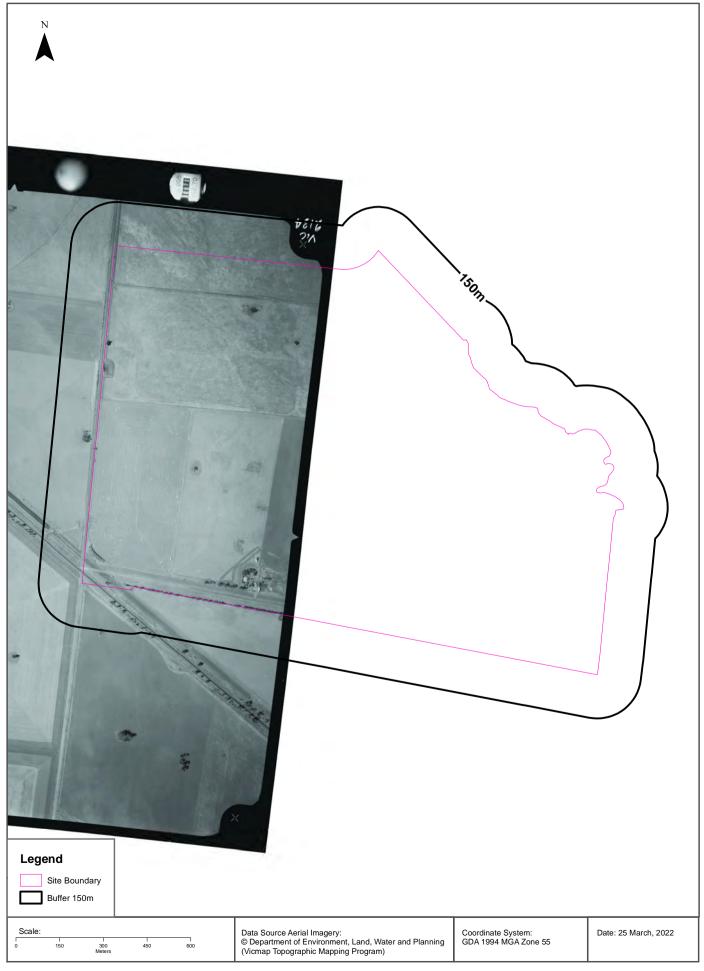




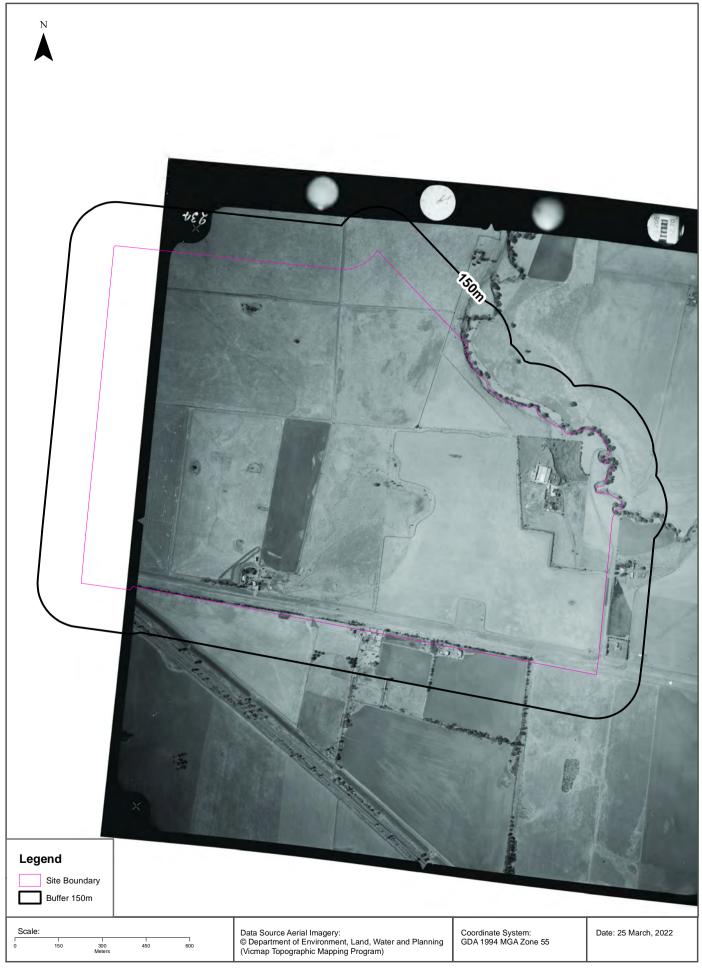




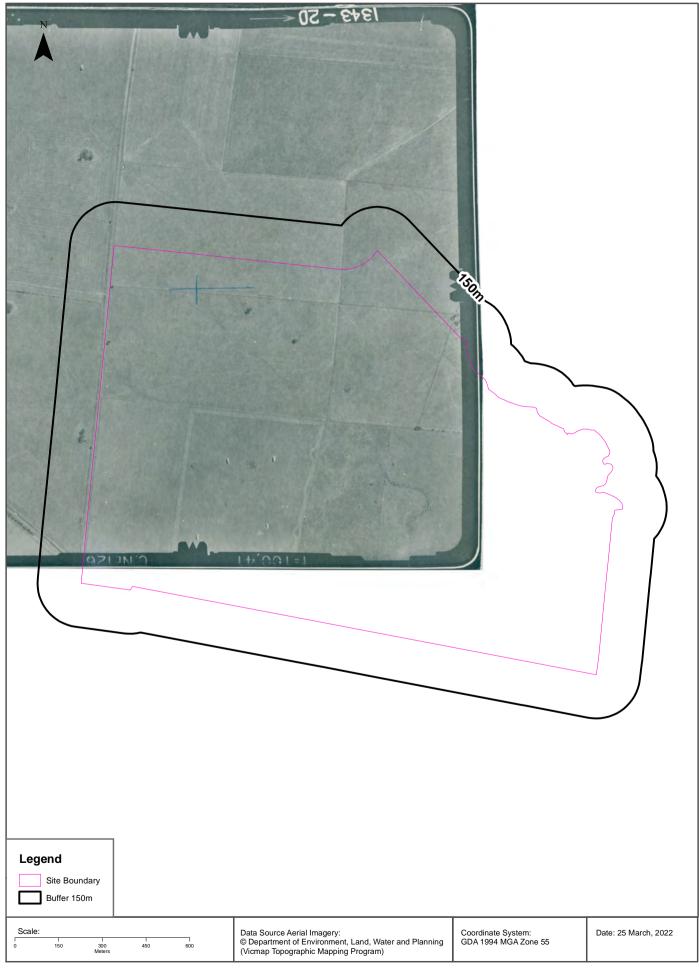




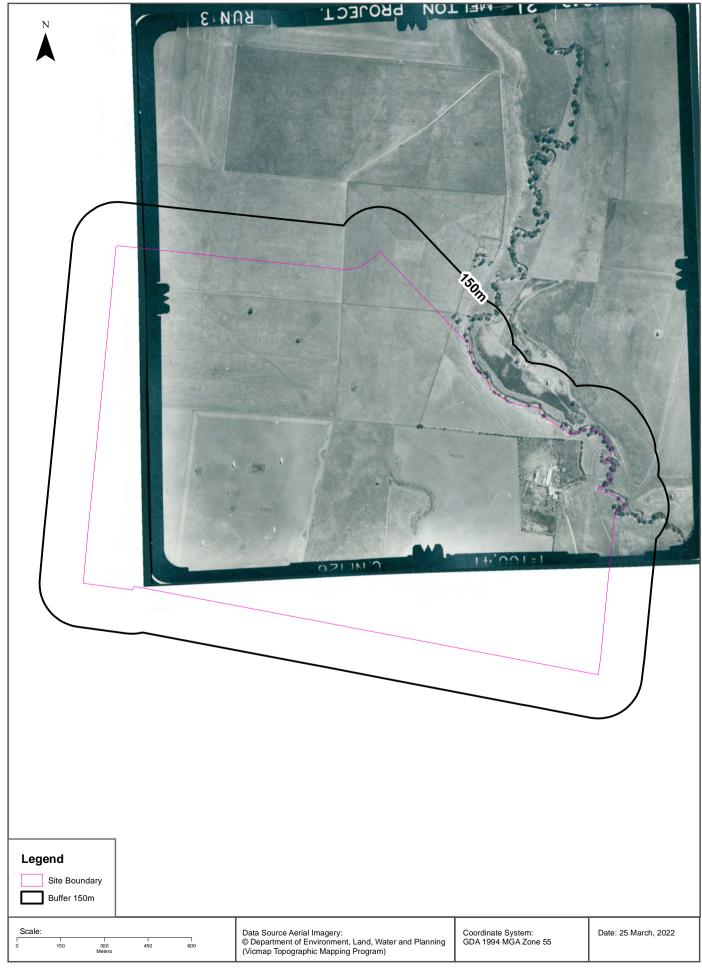








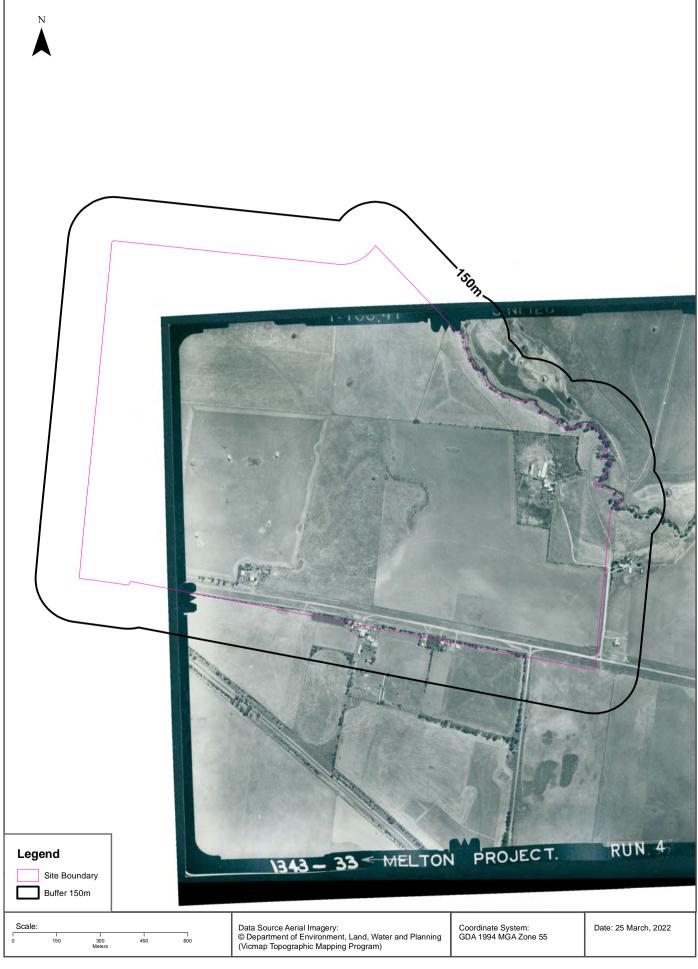












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Date: 28 Mar 2022

Reference: LS030630 EA

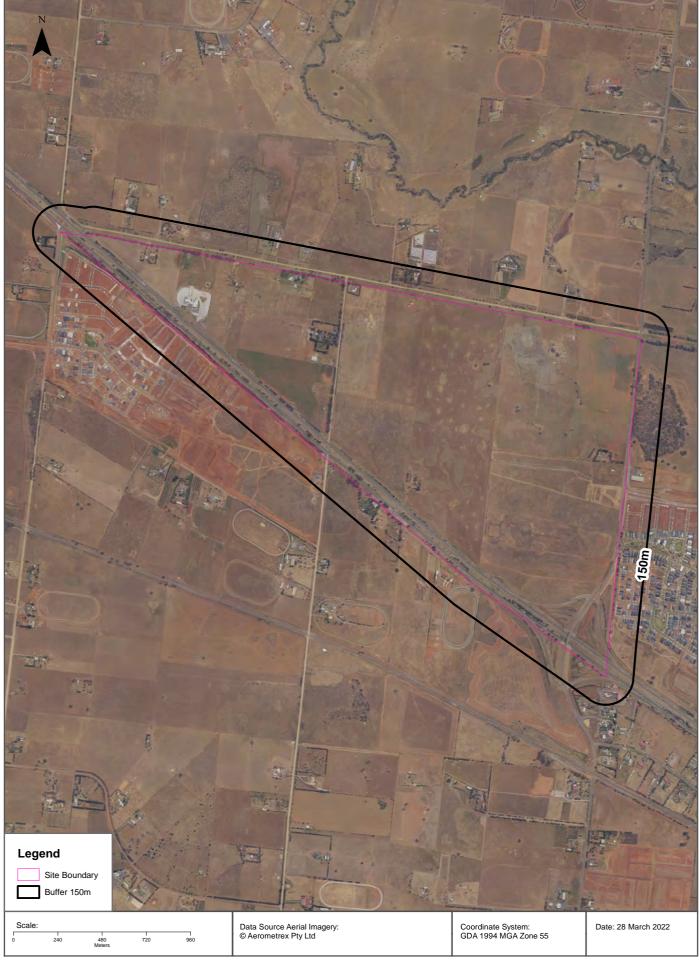
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Aerial Imagery 2017
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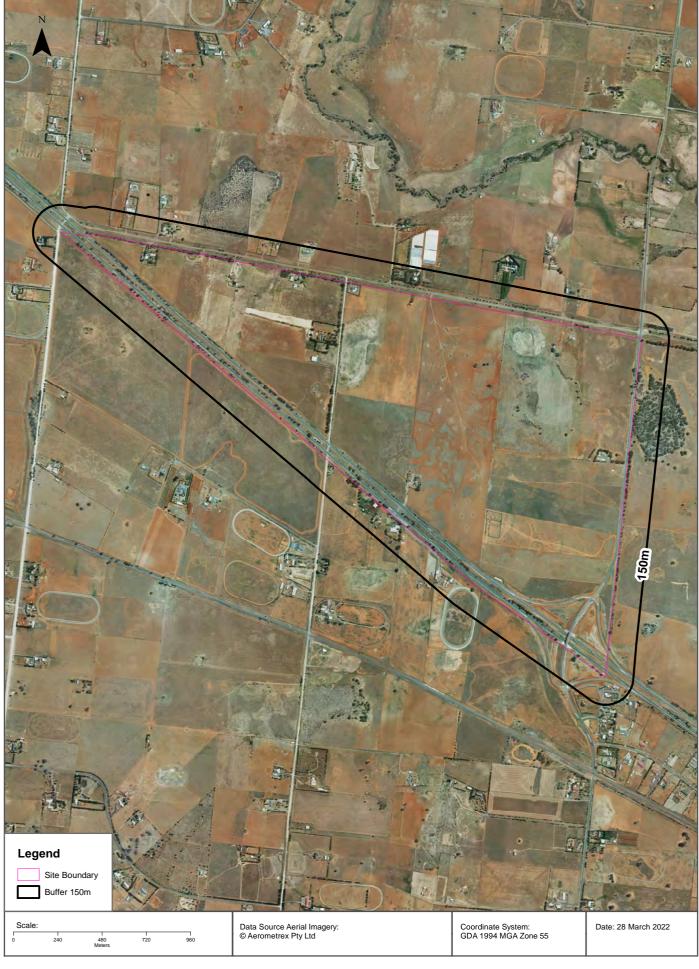




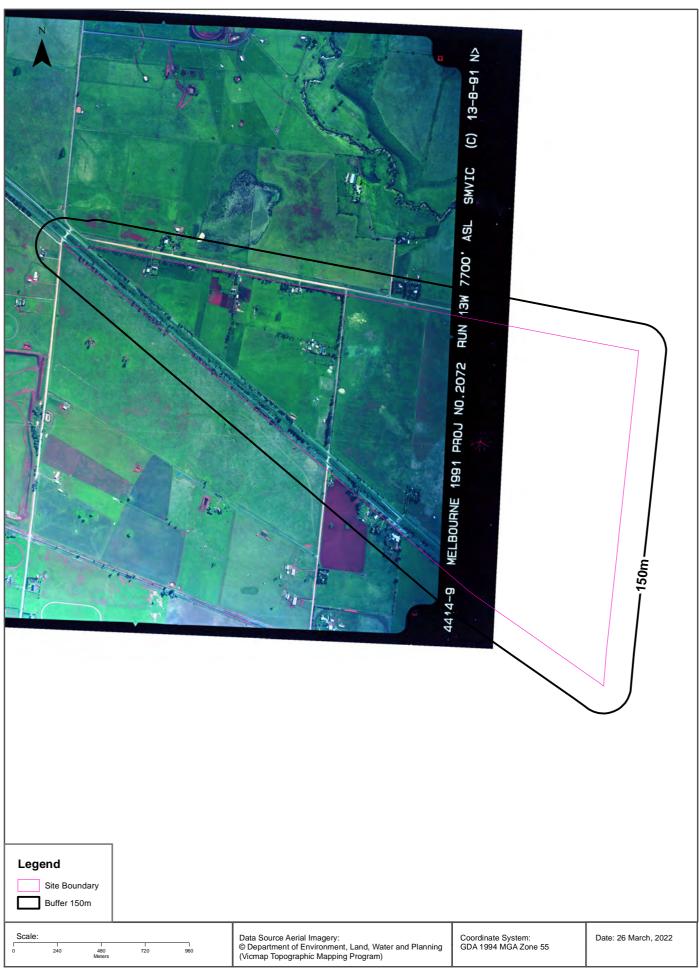


Aerial Imagery 2009
Melton East Psp (Section 5 of 5), Melton, VIC 3337









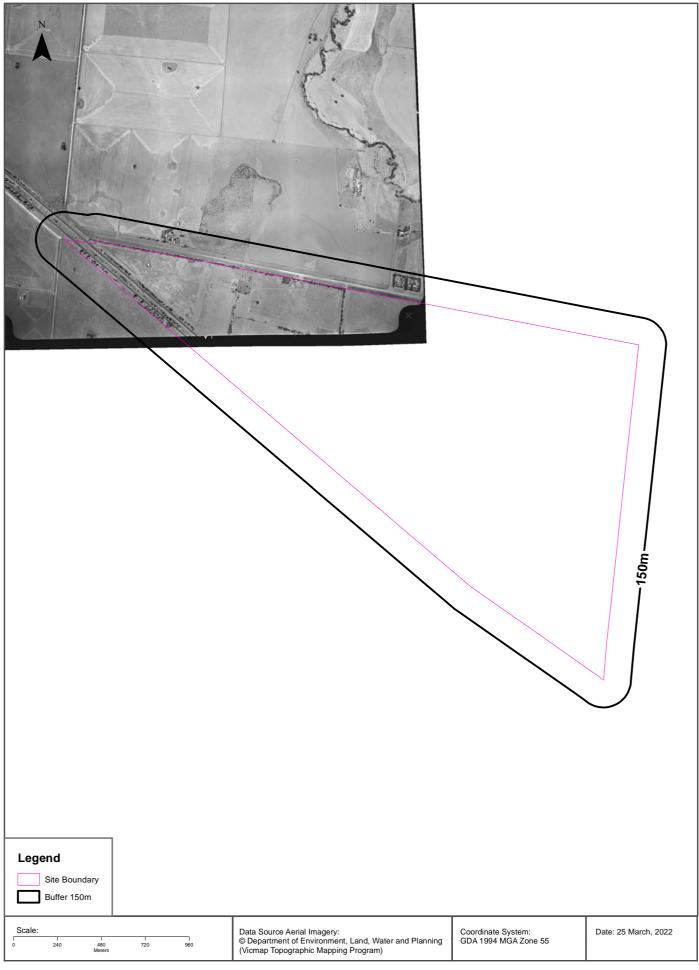




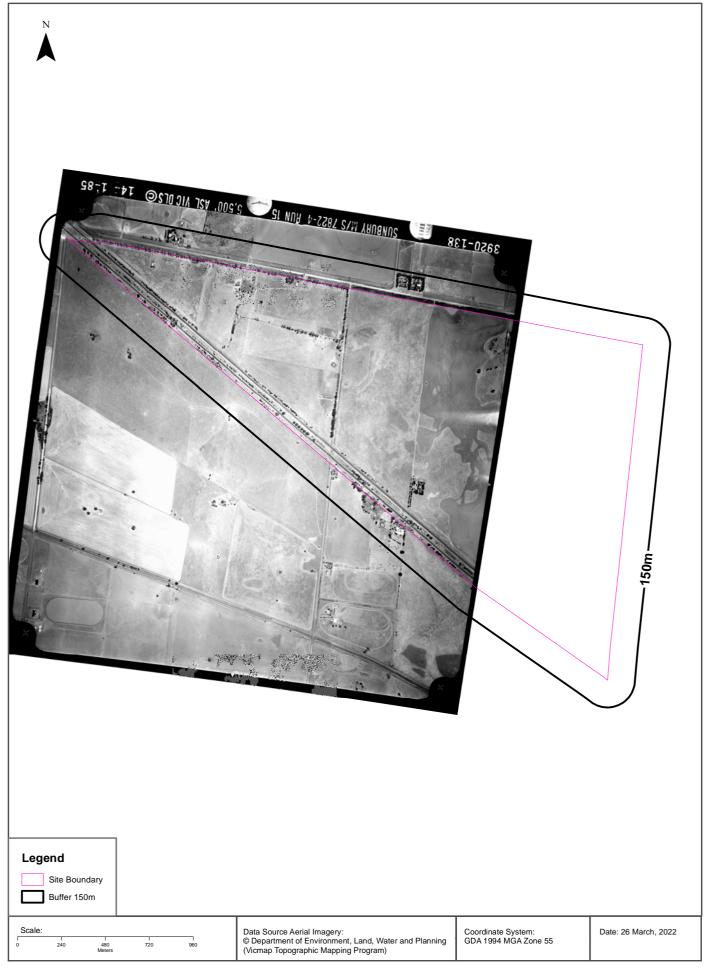




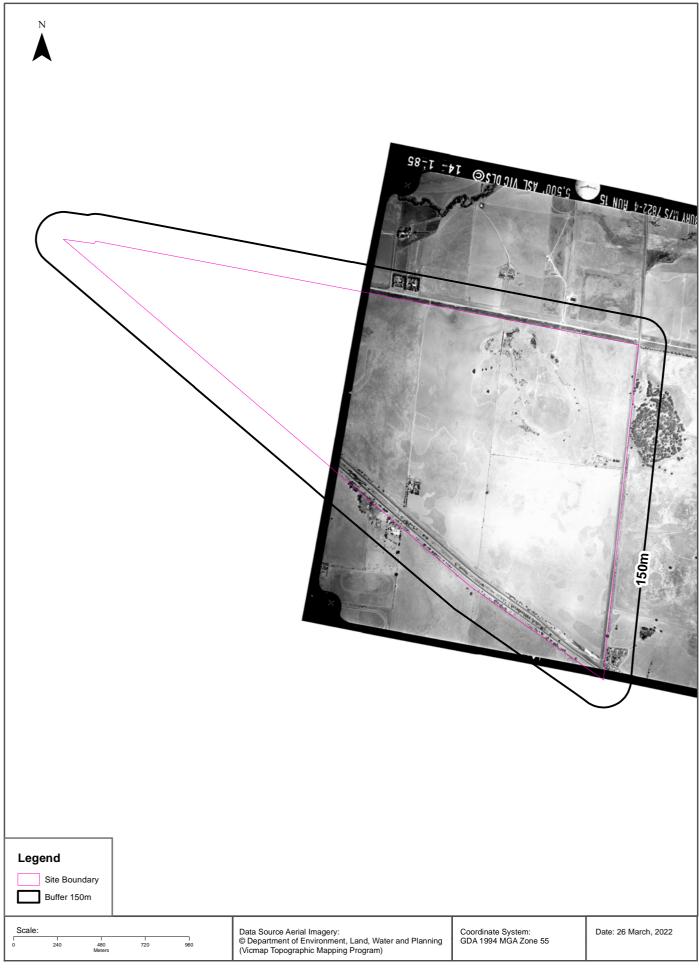




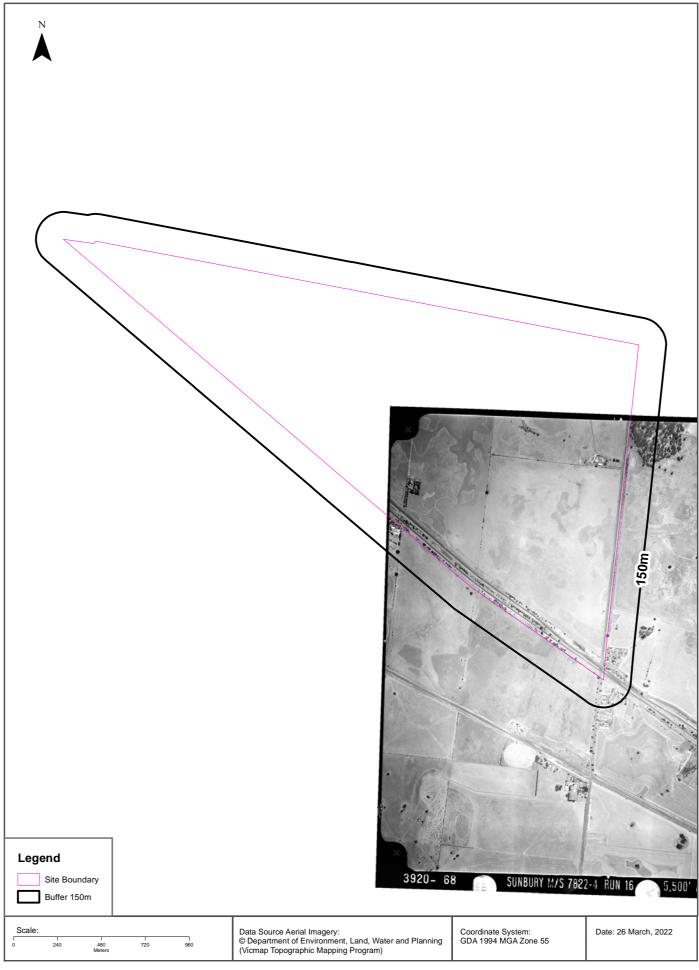








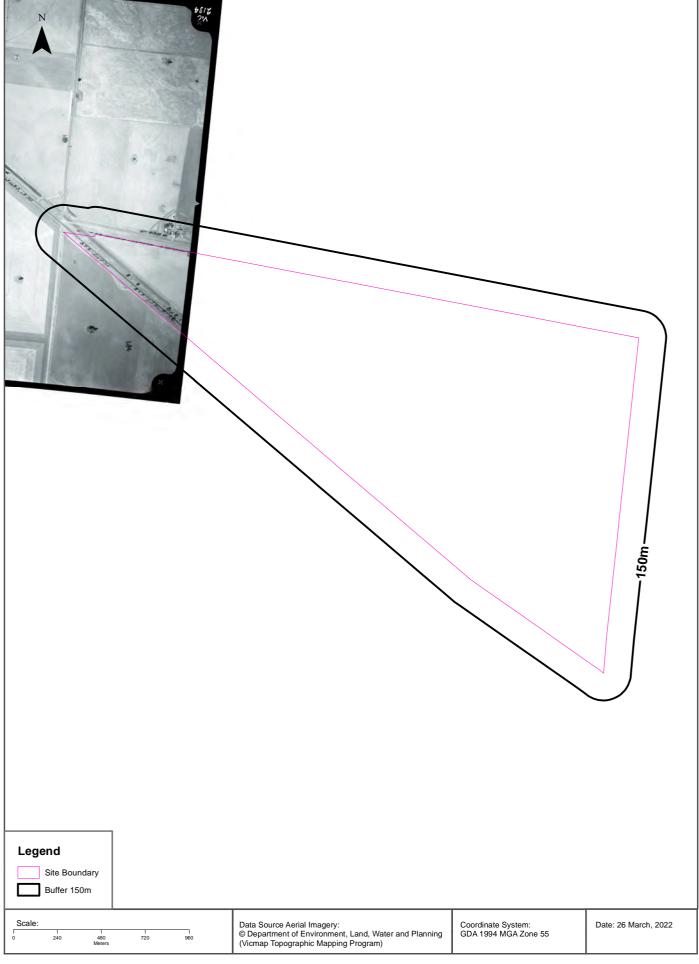




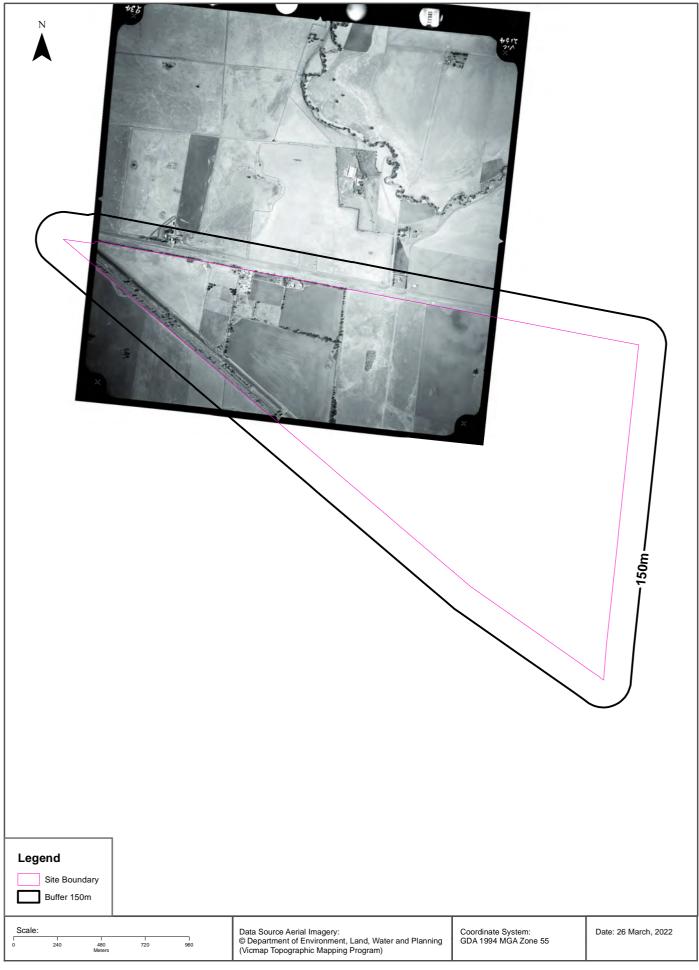




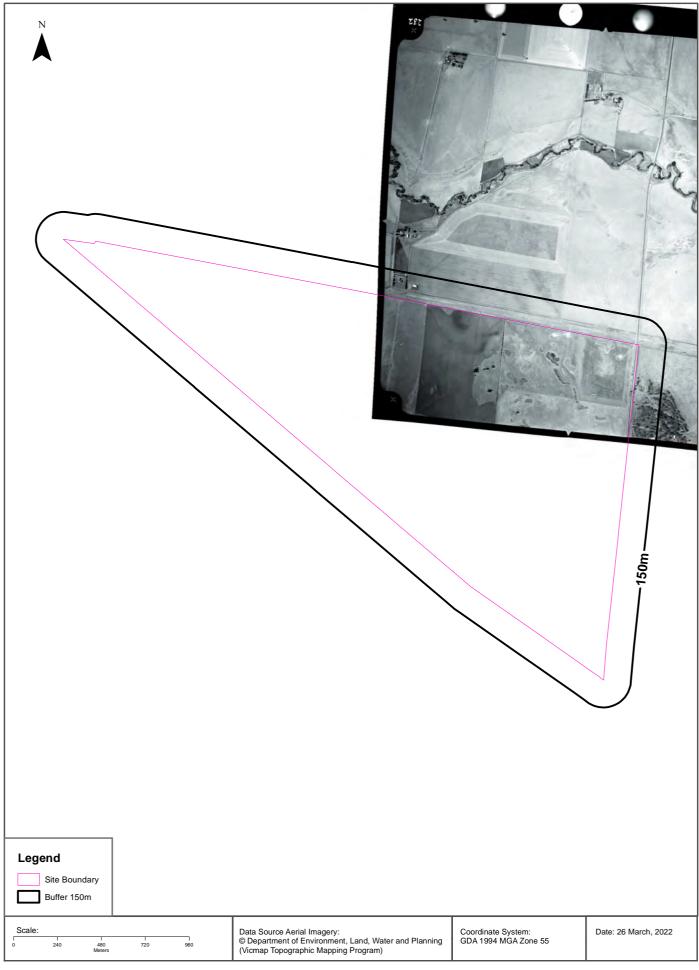




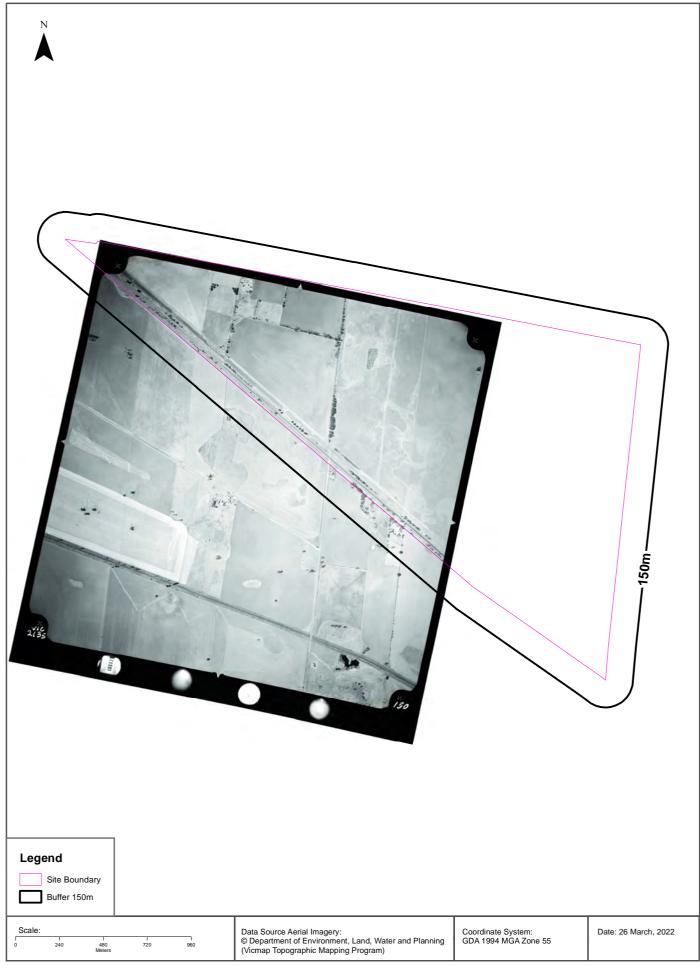




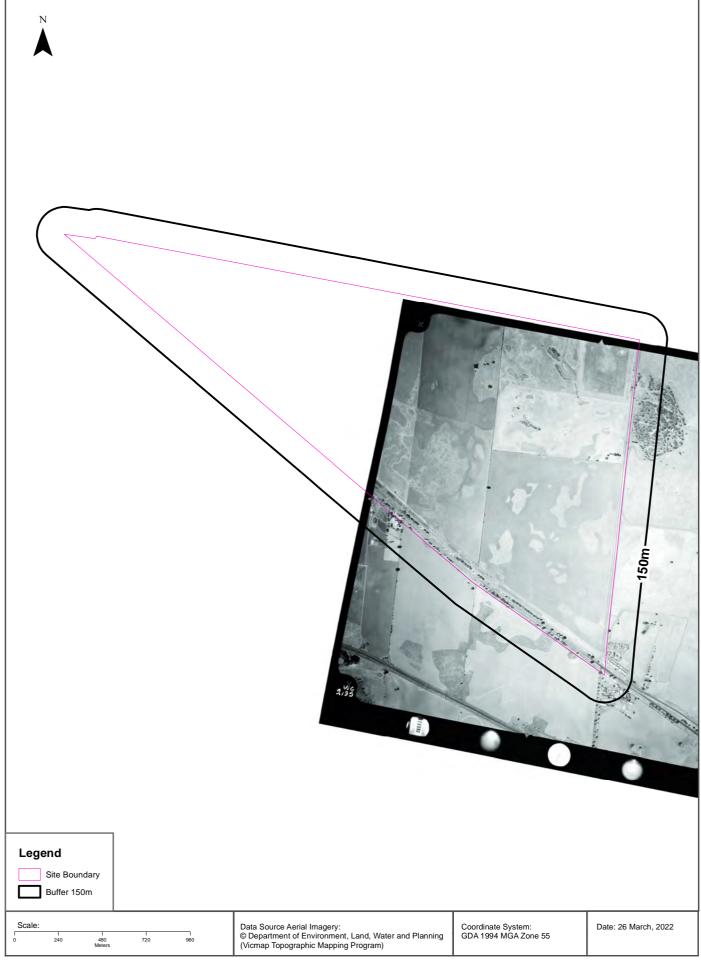








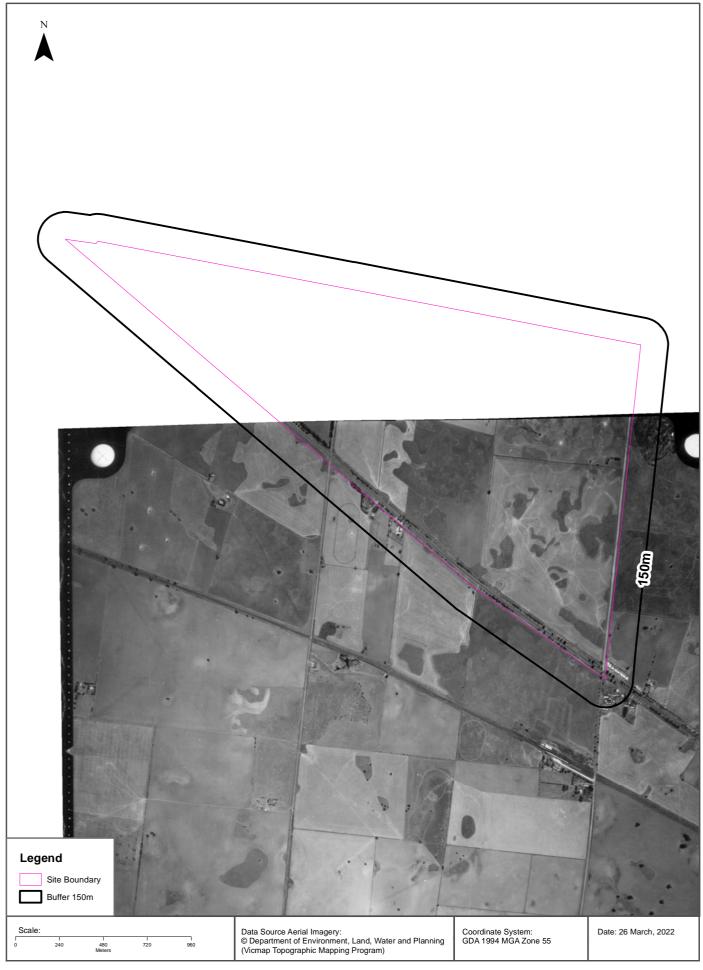












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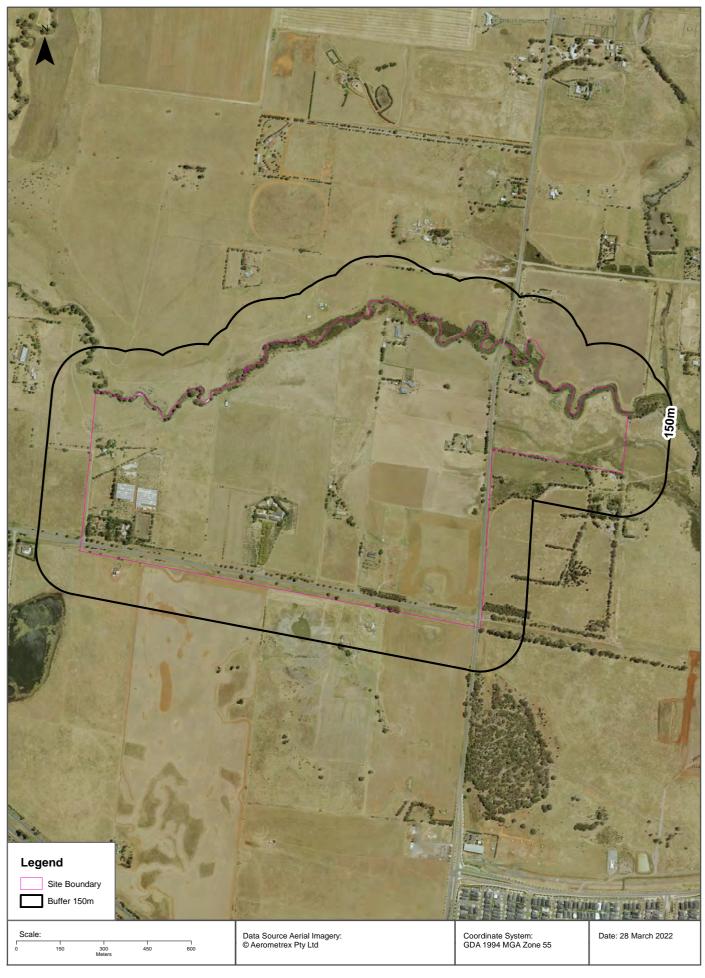


Date: 28 Mar 2022

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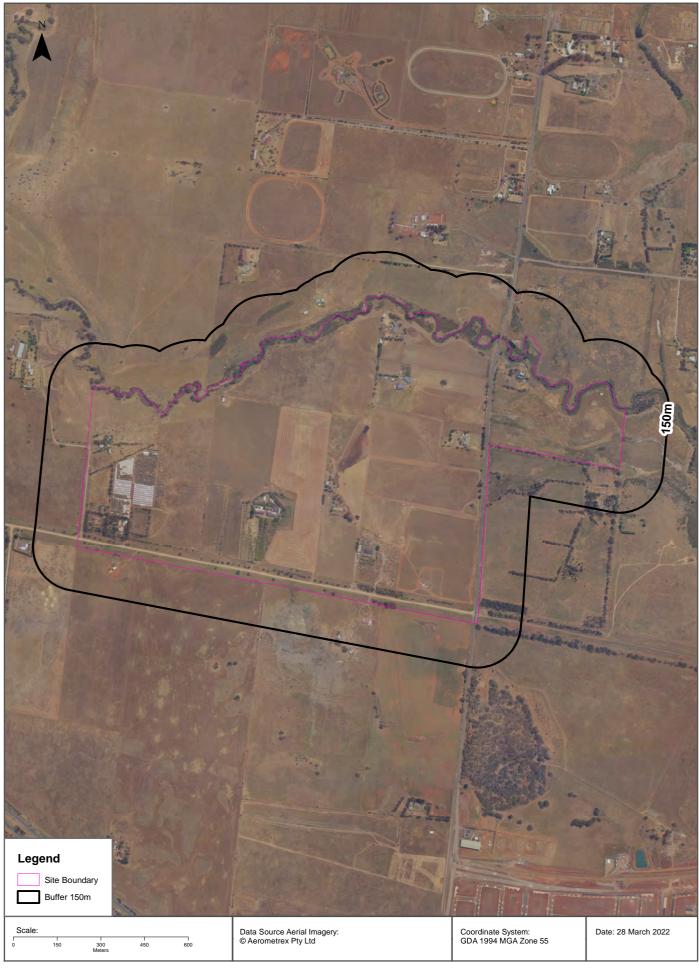
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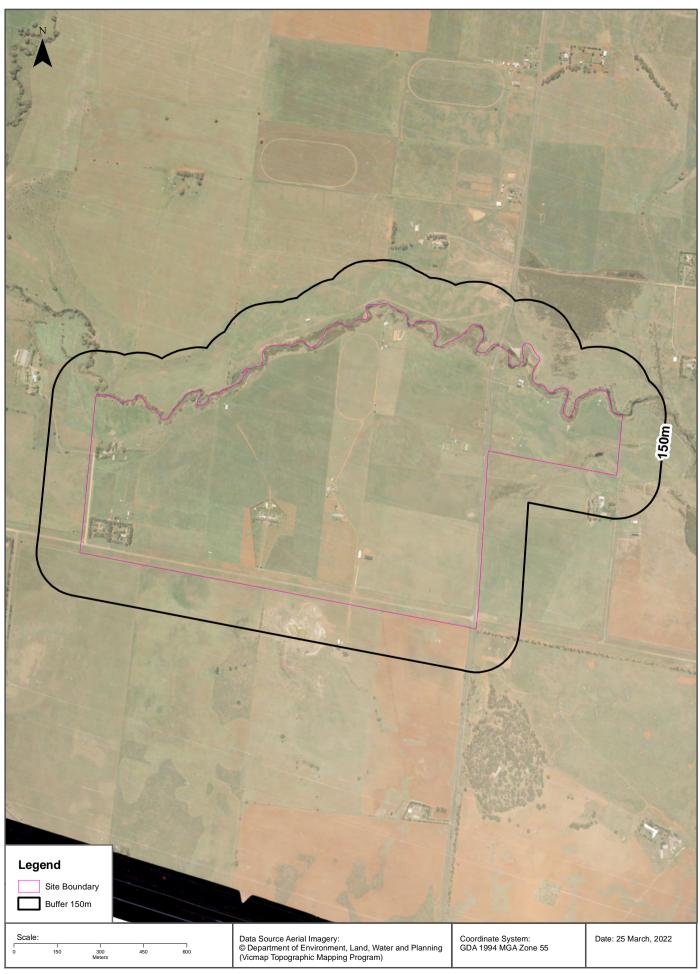


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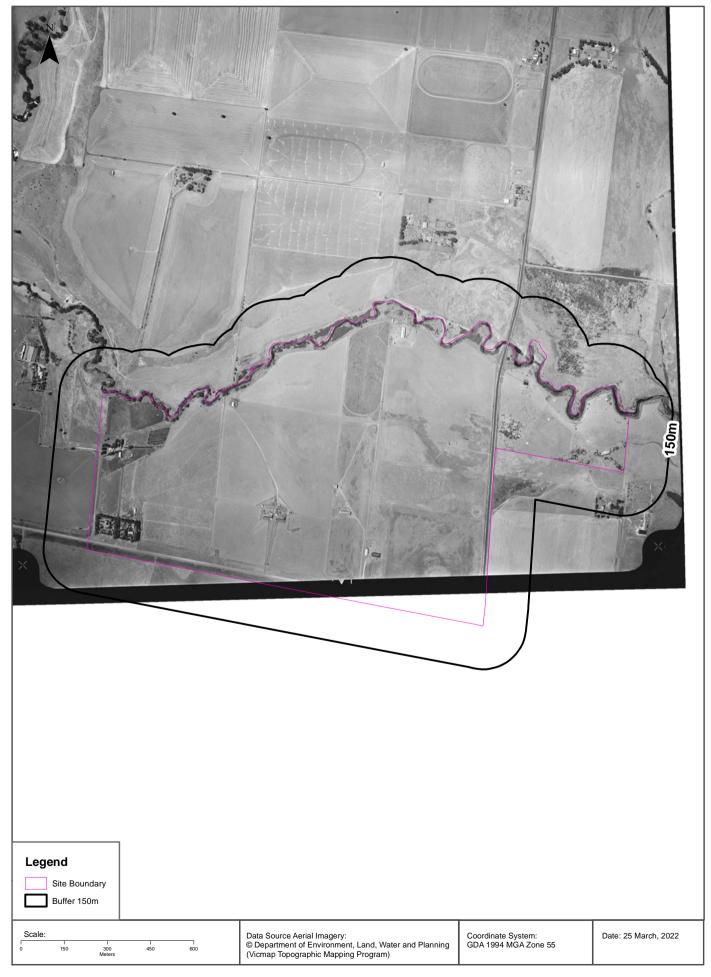




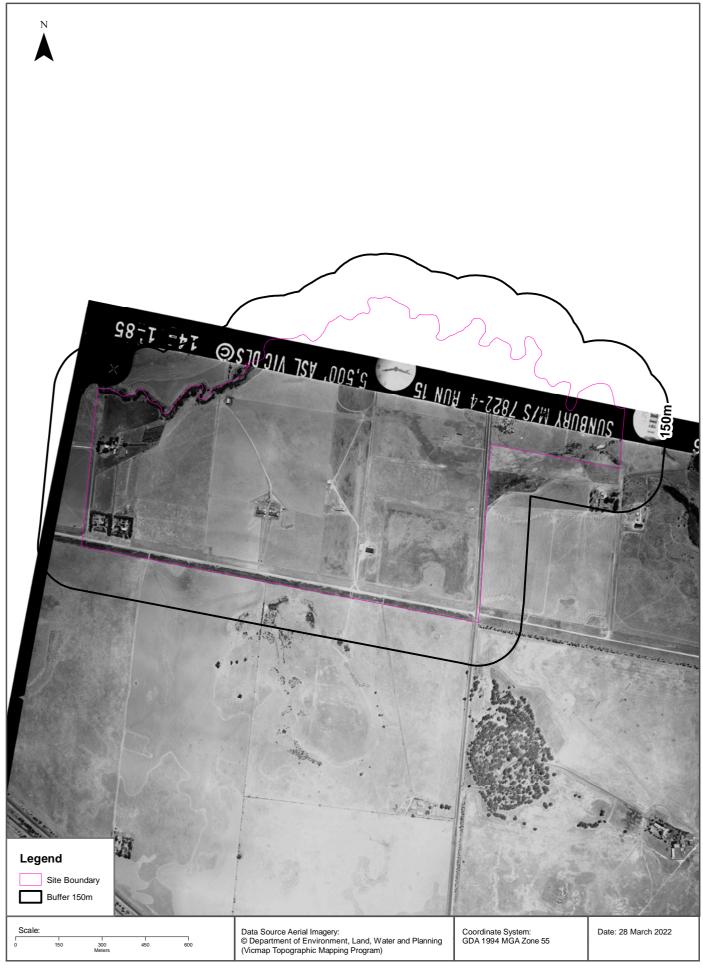




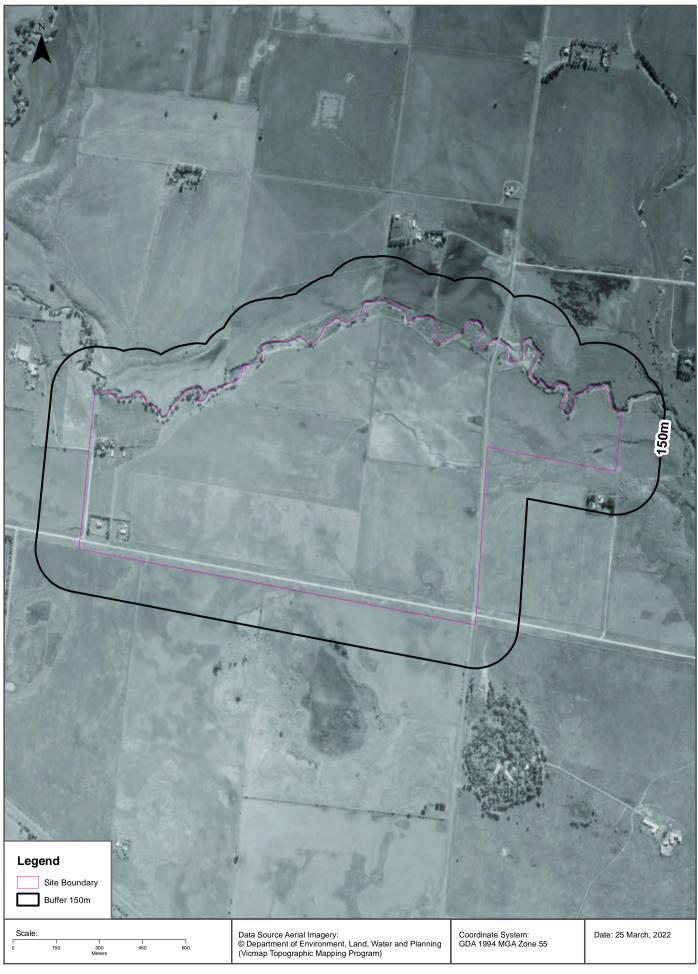




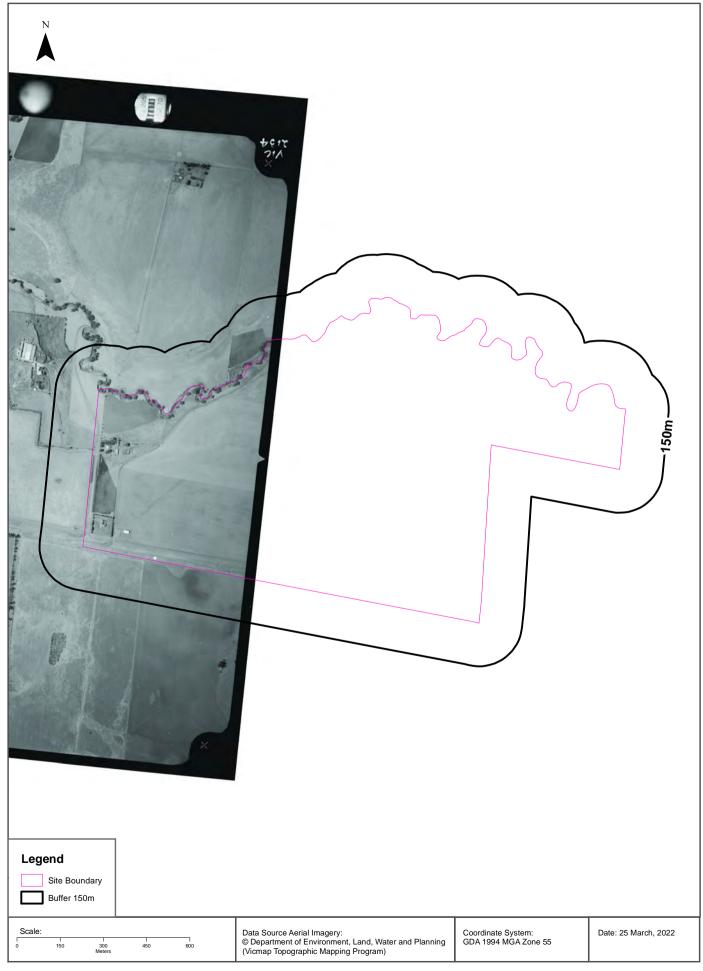








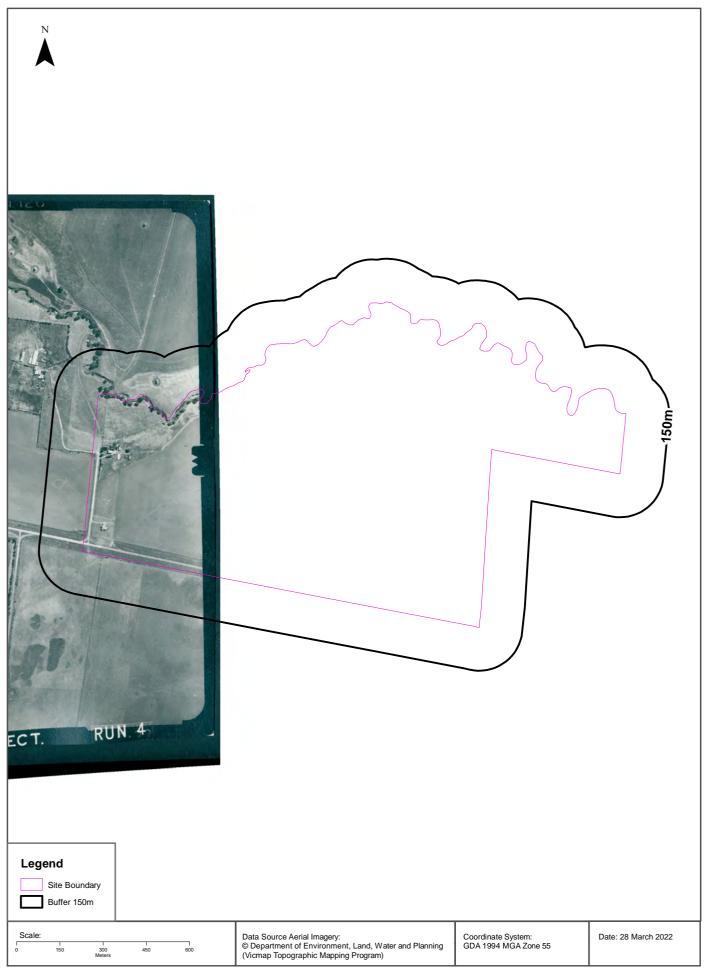




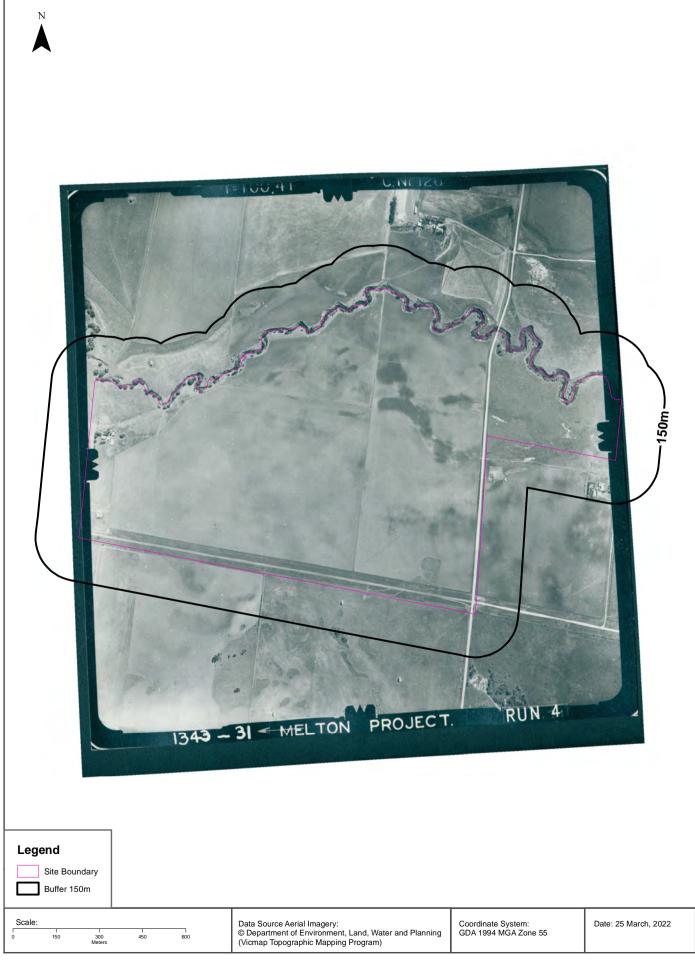




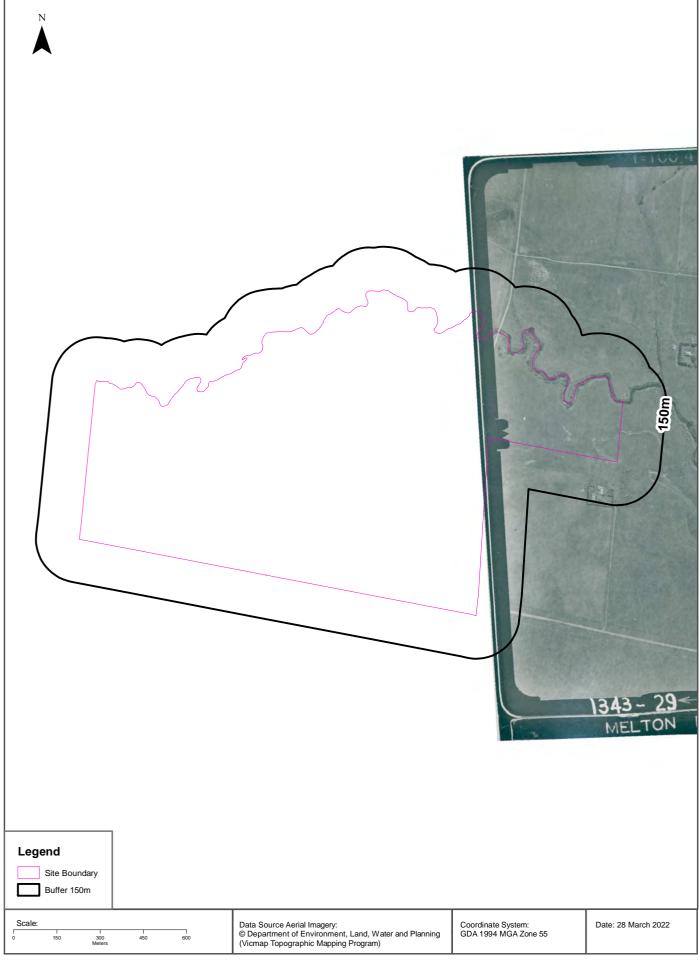












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Appendix C – Groundwater bores

Table 0-1. Summary of registered groundwater bores

Summary of registered groundwater bores within the Melton East PSP area

Bore ID	Depth	Uses	Easting	Northing
112660	21.34	Stock	290633.1	5826204.2
129589	25.5	Stock	293133.1	5825084.2
132477	36	Domestic	293193.1	5825304.2
135898	34.5	Unknown	292333.1	5822514.2
139979	55	Unknown	290913.1	5824734.2
143995	54	Unknown	290498.1	5823284.2
145066	31	Unknown	291613.1	5823854.2
311290	64.31	Unknown	293365.1	5823666.2
311292	60.96	Unknown	291732.1	5824115.2
311293	79.24	Unknown	290565.1	5826718.2
311297	1.2	Unknown	290335.1	5825175.2
311298	0.85	Unknown	290388.1	5825634.2
311299	0.7	Unknown	290434.1	5826150.2
311300	0.65	Unknown	290508.1	5826669.2
311313	1.82	Unknown	289043.1	5826700.2
311314	1.96	Unknown	289486.1	5826722.2
311320	0.7	Unknown	290264.1	5824464.2
311321	0.75	Unknown	290215.1	5823960.2
311322	1.75	Unknown	290169.1	5823439.2
311323	0.76	Unknown	290102.1	5822975.2
311324	0.65	Unknown	290042.1	5822472.2
311333	0.65	Unknown	289270.1	5822358.2
311334	1.35	Unknown	289654.1	5822313.2
60506	24	Unknown	289663.1	5822309.2
73197	16.76	Unknown	293425.1	5824567.2
73198	52.42	Unknown	290111.1	5824500.2
73202	0	Unknown	289668.1	5824670.2
73203	51.2	Unknown	289757.1	5824689.2
73204	30.4	Stock	291254.1	5824971.2
73210	45.7	Unknown	292573.1	5826789.2
73222	36.5	Unknown	290982.1	5824270.2
73223	21.3	Domestic	292073.1	5824596.2
73224	16.7	Domestic	292043.1	5824397.2
73225	8.5	Domestic	292386.1	5825103.2
73227	29.2	Stock	292909.1	5826745.2
73229	0	Domestic	292024.1	5826485.2
73230	30.4	Stock	291496.1	5825788.2
73231	33.5	Stock	290622.1	5826680.2
73232	12.2	Domestic	291448.1	5826465.2
73235	30.4	Stock	289794.1	5825611.2
73238	19.5	Unknown	290860.1	5824674.2

Land Capability Assessment

Bore ID	Depth	Uses	Easting	Northing
73239	41.1	Stock	289642.1	5826559.2
73248	24.4	Domestic	291933.1	5822941.2
73249	13.7	Unknown	291773.1	5822793.2
73250	15.8	Unknown	291768.1	5823036.2
73253	0	Unknown	289504.1	5823593.2
73254	27.4	Unknown	289340.1	5823685.2
73257	21.3	Stock	291397.1	5824926.2
73264	0	Unknown	291675.1	5824713.2
73265	0	Unknown	291147.1	5824070.2
73266	0	Unknown	293235.1	5823350.2
73272	18.89	Unknown	293305.1	5825178.2
73273	12.19	Unknown	292090.1	5824382.2
73275	50.5	Unknown	292357.1	5826788.2
73276	60.96	Unknown	293180.1	5826576.2
73277	34	Unknown	293273.1	5825750.2
73278	84	Unknown	290153.1	5822634.2
73279	31	Domestic	290153.1	5822604.2
73280	41	Unknown	293363.1	5826624.2
73281	23	Domestic	289363.1	5822734.2
73289	26	Unknown	289393.1	5822314.2
73290	25.9	Unknown	291713.1	5822784.2
73292	25	Unknown	291613.1	5822724.2
73298	13.71	Unknown	291703.1	5823584.2
73302	27	Unknown	291513.1	5824434.2
73305	30	Unknown	293233.1	5824139.2
73306	85	Unknown	289433.1	5824684.2
73309	45.1	Unknown	289383.1	5823954.2
73310	25.2	Unknown	289763.1	5823894.2
73311	45	Unknown	290113.1	5823854.2
73312	25.16	Unknown	290063.1	5823414.2
73313	45.27	Unknown	290003.1	5822974.2
73314	25.1	Unknown	289673.1	5823104.2
73315	45.1	Unknown	289323.1	5823244.2
73316	25.04	Unknown	289353.1	5823574.2
73317	25.1	Unknown	289053.1	5824754.2
73319	36	Unknown	290193.1	5822424.2
73324	30	Domestic	291563.1	5824154.2
73325	50	Unknown	290283.1	5823574.2
73331	80	Unknown	289733.1	5822484.2
73333	70	Unknown	292196.1	5823282.2
73336	21.9	Stock	291917.1	5823284.2
9038906	50.5	Domestic and Stock	290166	5824399
WRK097316	20	Groundwater Investigation	288971	5826637
WRK097319	20.5	Groundwater Investigation	288931	5826513
WRK105585	23.3	Groundwater Investigation	289060	5825659

Land Capability Assessment

Bore ID	Depth	Uses	Easting	Northing
WRK956884	9999	Unknown	293203	5825184
WRK956885	9999	Unknown	293166	5825151
WRK956889	9999	Unknown	293408	5824267
WRK956890	9999	Unknown	293085	5824857
WRK956891	9999	Unknown	293447	5824796
WRK964417	39	Domestic and Stock	291705.1	5822633.2
WRK966525	35	Domestic and Stock	291504.4	5826151.7
WRK970782	30	Domestic and Stock	292543	5824341
WRK970783	30	Domestic and Stock	291873	5824166
WRK971271	16.5	Domestic and Stock	292501	5824347
WRK973266	40	Domestic and Stock	292278	5822598
WRK973267	28	Domestic and Stock	290860	5824832
WRK978969	23	Domestic and Stock	291640	5824398
WRK979005	46	Domestic and Stock	290292	5825867
WRK985303	150	Unknown	290716	5826612
WRK992493	150	Unknown	290151	5824458

Appendix D – Previous Reports



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Important Notice

This report is confidential and is provided solely for the purposes of reporting the findings of the Preliminary Site Investigation at the Grangefields (Melton East) Precinct, VIC 3335. This report is provided pursuant to a Consultancy Agreement between SMEC Australia Pty Limited ("SMEC") and 3L Alliance, under which SMEC undertook to perform a specific and limited task for 3L Alliance. This report is strictly limited to the matters stated in it and subject to the various assumptions, qualifications and limitations in it and does not apply by implication to other matters. SMEC makes no representation that the scope, assumptions, qualifications and exclusions set out in this report will be suitable or sufficient for other purposes nor that the content of the report covers all matters which you may regard as material for your purposes.

This report must be read as a whole. The executive summary is not a substitute for this. Any subsequent report must be read in conjunction with this report.

The report supersedes all previous draft or interim reports, whether written or presented orally, before the date of this report. This report has not and will not be updated for events or transactions occurring after the date of the report or any other matters which might have a material effect on its contents or which come to light after the date of the report. SMEC is not obliged to inform you of any such event, transaction or matter nor to update the report for anything that occurs, or of which SMEC becomes aware, after the date of this report.

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EXECUTIVE SUMMARY

This report must be read as a whole. The executive summary is not a substitute for this. Any subsequent report must be read in conjunction with this report.

SMEC Australia Pty Ltd (SMEC) was engaged by 3L Alliance to undertake a Preliminary Site Investigation (PSI) for the area designated as the future Grangefields Precinct Structure Plan (PSP), currently identified as Melton East PSP (the 'study site'). 3L Alliance has secured the control of 260 hectares of farmland (initially comprising 23 land parcels) within the PSP and is initiating the preliminary studies required for the PSP to be progressed to the approval stage.

The review of Precinct history found that the land within the Precinct was previously used primarily for grazing and agricultural purposes. Main road corridors such as the Western Freeway and Melton Highway which are along and within the precinct boundaries have been in use throughout the history of the site. The surrounding land has been and is currently subject to similar uses as land within the Precinct.

Based on the information reviewed, the potential sources of contamination identified as part of this PSI are as follows:

Onsite:

- Agriculture heavy metals, pesticides/herbicides (OC/OPs), Total Petroleum Hydrocarbons (TPH), volatile hydrocarbons benzene, toluene, ethyl-benzene and xylenes (BTEX), Polycyclic Aromatic Hydrocarbons (PAHs), Poly Chlorinated Biphenyls (PCBs)
- Fuel and oil storage and use TPH, TRH, BTEX, lead
- Importation of fill, illegal dumping, stockpiling TPH, TRH, BTEX, MAH, heavy metals, asbestos
- Livestock Carcasses and Burial Pits BOD, nutrients, oil and grease
- Septic Tanks and Grey Water Tanks detergents, enteric and faecal bacteria, nutrients
- Service Station Storage use and leakages of fuels (heavy metals, TPH, BTEX).
- Main road corridors asbestos, metals, TPH, BTEXN.

Offsite:

- Melton Recycling Centre, which contained landfilling of the Readymix Quary (decomposition of wastes to leachate – metals, nutrients).
- Use of adjacent land by the Defence Force, now the Rockbank residential development (UXO/XO ordnances
 – UXO, metals).

The review of current and previous site uses have identified the following activities associated with the site's use for grazing and agricultural purposes, having a "medium potential for contamination" as defined in Table 1 of the DSE (2005) guideline:

- Possible storage and use of chemicals and fuels; and
- Waste and Building materials.

This triggers assessment level 'B' which has the requirement of "a site assessment from a suitably qualified environmental professional if insufficient information is available to determine if an audit is appropriate. If advised that an audit is not required, default to C". Should these road corridors be retained (i.e. not developed into residential land), the assessment level would default to level 'C'.

A high potential for significant contaminant to be (or become) present has been identified for:

The service station within Lot 1PS537638 (for the activity of "service stations/fuel storage")

This triggers assessment level 'A' which requires "an environmental audit as required by Ministerial Direction No. 1 or the Environmental Audit Overlay when a planning scheme amendment or planning permit application would allow a sensitive use to establish on potentially contaminated land." However, based on the age of the service station and the likelihood the construction adhered to stringent guidelines, a trigger assessment level 'B' may be more appropriate.

The remainder of the precinct has been indicated to be a *low* potential for significant contamination, triggering assessment level C requiring "General duty under Section 12(2)(b) and Section 60(1)(a)(iii) of the Planning and Environment Act 1987". It should be noted however that this assessment was a high level review and there is potential for contamination to be present in areas where potential was not identified.

It is understood that some of the land may be developed for less sensitive purposes, which would then reduce the level of assessment required e.g. where a proposed redevelopment land use includes "Other Uses" e.g. agriculture, or commercial/industrial e.g. retail or office, industry or warehouse.

Based on this assessment, the majority of the site is considered generally suitable for proposed redevelopment for urban uses including residential, provided the following investigations (and subsequent remediation if required) are actioned:

- Investigation Level A sites: requirement of an environmental audit. Alternativity, these sections could be utilised for land uses of lower sensitivities, such as open space, agriculture, retail/office of industry/warehouse. This would negate the requirement for an environmental audit and lower the triggered assessment to Level B, as described above.
- Investigation Level B sites: requirement of site assessments from a suitably qualified person, potentially including site walkovers limited surface/intrusive soil sampling and/or intrusive groundwater investigation.
- Investigation Level C sites: addressed by general duty of care.

Based on this review and the conclusions above, SMEC recommends liaison with a suitably qualified and experienced consultant to assess the level of further assessment required at the Precinct (or portion of land within the Precinct) to comply with requirement for a site assessment and duty of care requirements as per DSE (2005) guidance, including detailed site inspections and walkovers and dependant on findings, further assessment may include intrusive soil assessment and/or intrusive groundwater investigation, if considered appropriate. This would serve to assess the potential presence, severity and extent of contamination at specific areas within the Precinct as identified (if any) and inform on the potential hazards to environmental or human health and requirements for any further assessment or site clean-up to ensure the Site is suitable for the proposed redevelopment.

This should be targeted to ensure detailed assessment of land proposed for more sensitive uses and/or where land has been developed/disturbed or subject to more intensive agricultural uses.

Figures provided within this report presents the portions of the Precinct where Level 'C' assessment as per DSE (2005) is required; this is based on low risk of the presence of contamination and where assessment is likely to have already been conducted as part of the Planning Permit application process. The same figure also presents those areas of the Precinct where Level 'B' and 'A' assessment is required.

DSE (2005) indicates that the planning or responsible authority (e.g. Council and/or EPA) may require some or all of the additional site assessment recommended below be completed as a condition of the planning or development permit application; however, it should be noted that this guidance is clearer in regards to sites where an environmental audit overlay is applicable, or where any preliminary investigations determine an environmental audit is warranted based on potential for contamination and proposed land use as per Table 2 of the guidance.

Limited/targeted intrusive soil assessment would be recommended at the following:

- Any locations where waste has been historically dumped / stockpiled, or fill has been imported e.g. for surface levelling or to fill in former dams. This would include lots 3LP216717, 4PS304449, 1LP127283, 1TP118945, 5LP137020 and3-7\PP2927;
- Any locations where intensive agricultural activities have been identified, including areas where fertilisers have been stockpiled, market gardens/nurseries, farming operations, intensive livestock pasturing operations;
- Any locations where inspection of farm storage sheds/buildings identifies the potential presence of contamination or potentially contaminating activities (mechanical workshops, heavy equipment storage and maintenance;
- Any locations where chemical handling/mixing/storage has been identified, or where there is evidence of spills/losses of fuels/oil/pesticides/herbicides;
- Service station; and
- Former building/structure locations where demolition may have caused impacts from asbestos or other materials associated with vintage structures (PCBs, lead-based paints etc).

Any further assessment should be completed prior to any development permit application process.

1 Introduction

SMEC Australia Pty Ltd (SMEC) was engaged by 3L Alliance to undertake a Preliminary Site Investigation (PSI) for the area designated as the future Grangefields Precinct Structure Plan (PSP), currently identified as Melton East PSP (the 'precinct'). 3L Alliance has secured the control of 928 hectares of farmland (comprising 78 land parcels) within the PSP and is initiating the preliminary studies required for the PSP to be progressed to the approval stage.

A preliminary study site boundary, presenting the potentially affected lots, is presented in Appendix A, Figure 1.

1.1 Objectives

The objective of this scope is to understand the nature and extent of any potential contamination on property parcels within the overall PSP area and assess the potential risk to human health and the environment associated with contamination sources both on site and off site in accordance with Ministerial Direction No. 1 – Potentially Contaminated Land, the NEPM (2013) and Ministerial Direction No. 19 – Information requirements for amendments that may result in impacts on the environment, amenity and human health (Direction No. 19)

1.2 Scope of Works

SMEC conducted a desktop site history investigation and a brief site walkover, which included the following scope of works:

- Site identification to identify the Site boundaries and the location of potential contaminated land parcels.
- Identification of current and proposed uses identified through a review of current and historical land zoning plans.
- Reviewed available Site plans, historical maps and other available information, provided by Council and publicly available.
- Reviewed historical aerial photographs from first available photographs held by the Land Information Office of
 the Department of Environment, Land, Water and Planning (DELWP), and at nominal ten-year intervals after that
 to 2009 or 2012, and 2018 or 2019. SMEC also reviewed available aerial photography from other sources (e.g.
 Google Earth Pro, NearMap) for 2015 to assess any changes in land uses and potential contamination in between
 available imagery.
- Reviewed previous land use activities recorded by Council.
- Obtained EPA Victoria records including licensed land uses, environmental audit overlays, publicly available Audit reports including Statements of environmental audit, Pollution Abatement Notices and the Priority Site Register;
- Assessed for the presence Groundwater Quality Restricted Use Zones (GQRZ).
- Reviewed waste disposal locations and areas of imported fill (including review of EPA public former landfill database).
- Reviewed the Site environmental setting, to determine the surrounding environment and potential off-Site receptors to contamination, including:
 - ecological mapping
 - acid sulfate soil mapping;
- Reviewed local geology and hydrogeology mapping as this information can influence the fate and transport of contaminants and potential receptors to contamination; searches included:
 - surface elevation mapping
 - regional and site-specific soil and geology records
 - existing soil bore and groundwater well data.
- Reviewed and summarised any previous reports or studies regarding environmental, geological or ground water conditions within the precinct made available by Council.
- Reviewed any other information deemed appropriate to include in the desktop review.

Preparation of this report, including:

- Summary of findings and recommendations of the desktop review.
- Issues summary and resultant recommendations for management and/or remediation in terms of environmental contamination, geology/geotechnical and hydrology/groundwater.

- Outline of any future testing and more detailed investigations if recommended.
- Evaluation of the suitability of the Precinct for proposed use and what level of further assessment (if any) would be required to determine suitability.
- A simple "traffic-light" system of property classification in accordance with Table 2 (Assessment Matrix) of DSE (2005):
 - (i) A Requires an environmental audit under Section 53X of the Environment; Protection Act (1970, as amended 2018) (the EP Act)
 - (ii) **B** Requires a site assessment from a suitably qualified environmental professional
 - (iii) **C** General duty under Section 12(2)(b) and Section 60(1)(a)(iii) of the Planning and Environment Act (1987) (the P&E Act).
- Clear and concise drawings/maps, to illustrate existing conditions and support the report as required.

1.3 Legislative and Regulatory Framework

Relevant legislation, guidance and other assessment framework references for the assessment are as follows:

- National Environment Protection (Assessment of Site Contamination) Measure 1999 (amended 2013) (NEPM, 2013).
- NEPM Schedule B2 Site Characterisation.
- Ministerial Direction No. 1 Potentially Contaminated Land (Direction No. 1).
- Ministerial Direction No. 19 Information requirements for amendments that may result in impacts on the environment, amenity and human health (Direction No. 19).
- Victorian Department of Sustainability and Environment, Potentially Contaminated Land, General Practice Note, 2005 (DSE, 2005).
- State Environmental Protection Policy (SEPP), Prevention and Management of Contamination of Land, 2002 (the Land SEPP).

1.4 Limitations

Site conditions can vary from those encountered and reported herein. The information and findings in this report are based on data obtained by SMEC.

Within the approved scope, SMEC performed this PSI in a manner consistent with the level of care and expertise ordinarily exercised by members of the environmental consulting profession. No other warranties, expressed or implied, are made or intended.

SMEC takes no responsibility for interpretations or opinions made by 3L or other third parties and based wholly or in part on the information in this report.

This report is issued on the condition that, without our prior approval:

- it will not be altered, amended or abbreviated by 3L.
- it will not be issued in part or issued incomplete to third parties by 3L.

This report was prepared to meet the purpose and objectives presented in Section 1.1. This report is not any of the following:

- a quantitative groundwater, leachate, landfill gas, ecological, human health or environmental risk assessment
- a limited or detailed site investigation
- an environmental audit
- a geotechnical assessment
- a hydrogeological assessment.

2 Site Identification

2.1 General Information

The Precinct is comprised of a number of land parcels as presented in the Precinct Location Plan in **Appendix A**, Figure 1.

Due to considerable size, the desktop site history investigation has been broken up into five Precinct Parts (PP) –PP1 to PP5; as shown in **Appendix A**, Figure 1.

Site identification and general Site setting are summarised in **Table 2-1**.

Table 2-1: Site Details – Part 1

DETAIL	DESCRIPTION
Total Precinct Area	Approximately 928 (ha) in total
	PP1:
	• 1LP200559
	• 1PS317226
	• 1TP139677
	• 2LP200559
	• 2PS317226
	• 3LP200559
	• 3PS317226
	• 4LP200559
	• 4PS317226
	• 5LP200559
	• 5PS317226
Lot/Plans included within Precinct Parts	• 6LP200559
	• 7PS317226
	PP2:
Please note, due to the areas of the	• 1LP216717
reports for each Precinct Part not	• 1PS446475
conforming strictly with parcel/property	• 1PS516065
boundaries to provide adequate coverage of the Precinct, there is some	• 1PS523007
overlap across Precinct Part boundaries.	• 10LP218298
	• 12LP218298
	• 15LP218298
	• 16LP218298
	• 17LP218298
	• 18LP218298
	• 1A~13PP2927
	• 2LP216717
	• 2LP98912
	• 2PS516065
	• 2PS520699
	• 2PS523007
	• 2001PP2927
	• 2E~8APP2927

DETAIL	DESCRIPTION
	• 2F~8APP2927
	• 3LP216717
	• 4PS304449
	• 5PS304449
	• 6LP218298
	• 7LP218298
	• 8LP218298
	• 9LP218298
	• RES1LP216717
	PP3:
	• 1LP217378
	• 1PS446475
	• 1PS516977
	• 1PS537638
	• 2LP217378
	• 2PS446475
	• 2PS537638
	• 3LP137020
	• 3LP217378
	• 3PS446475
	• 4LP137020
	• 4LP217378
	• 5LP137020
	• 6PS317226
	PP4:
	• 1LP122822
	• 1LP127283
	• 1LP141752
	1PS4464751PS518411
	• 175518411 • 17P118945
	• 17P118945 • 1TP213863
	• 1TP243803 • 1TP242245
	• 1TP542527
	• 1TP562688
	• 1TP613184
	• 2LP122822
	• 2LP127283
	• 2LP141752
	• 2LP98912
	• 2PS446475
	• 2PS518411
	• 2001PP2927
	• 2E~8APP2927
	• 2F~8APP2927

3 JP137020 3 JP5446475 3 P5446475 3 P79P2927 4 A~7PP2927 4 A~7PP2927 5	DETAIL	DESCRIPTION
PP1: Predominantly Urban Growth Zone (UGZ), except for the road corridors zoned as RDZ1. PP2: Predominantly Urban Growth Zone (UGZ), except for the Kororoit Creek waterway which consists of a rural conservation zone (RCZ), an urban floodway zone (UFZ) and a public park and recreation zone (PPRZ). PP3: Predominantly Urban Growth Zone (UGZ), except for the road corridors zoned as Road Zone – Category 1 (RDZ1). PP4: Predominantly Urban Growth Zone (UGZ), except for the Kororoit Creek waterway which consists of a rural conservation zone (RCZ) and an urban floodway zone (UFZ). PP5: Predominantly Urban Growth Zone (UGZ), except for the road corridors zoned as RDZ1 and small component zoned as Urban Growth zone – Schedule 7.	DETAIL	 3LP137020 3PS446475 3~7PP2927 4A~7PP2927 PP5 1LP122822 1PS648107 1TP562688 2LP122822 2PS648107 3LP122822 3LP137020 3PS648107 3~7PP2927 4LP131415 4LP137020 4A~7PP2927 4B~7PP2927 5LP131415 5LP137020 6B~7PP2927 7LP131415 5LP137020 6B~7PP2927 R1PS648107 R2PS648107 RES1PS648107
Current Site use PP1:	Current zoning	 Predominantly Urban Growth Zone (UGZ), except for the road corridors zoned as RDZ1. PP2: Predominantly Urban Growth Zone (UGZ), except for the Kororoit Creek waterway which consists of a rural conservation zone (RCZ), an urban floodway zone (UFZ) and a public park and recreation zone (PPRZ). PP3: Predominantly Urban Growth Zone (UGZ), except for the road corridors zoned as Road Zone – Category 1 (RDZ1). PP4: Predominantly Urban Growth Zone (UGZ), except for the Kororoit Creek waterway which consists of a rural conservation zone (RCZ) and an urban floodway zone (UFZ). PP5: Predominantly Urban Growth Zone (UGZ), except for the road corridors zoned as RDZ1 and small component zoned as
	Current Site use	PP1:

DETAIL	DESCRIPTION
	 Consists of urban residential, grazing or agricultural land. PP2:
	 Consists of urban residential, grazing or agricultural land. PP3:
	 BP Service station on Lot 1PS537638, with restaurants including MacDonalds and RoadHaven. The remainder of PP3 consists of urban residential, grazing or agricultural land.
	PP4:
	Urban residential, grazing or agricultural land.PP5:
	 Western Freeway including Rockbank Nursery and Zambros Food2go. The remainder of PP5 consists of urban residential, grazing or agricultural land.
Proposed Site Use	Urban development – potentially a mix of residential, light commercial / industrial, and associated roads and infrastructure

2.2 Site Description

The Precinct is adjacent to the town of Melton and within 30 km to the northwest of the Melbourne CBD. The land uses surrounding the Precinct are as follows:

- North Melton Highway followed by rural residential and grazing land. Residential lots within the suburb of Kurunjang are located to the north of PP1.
- East Leakes Road followed by rural residential and grazing land. Residential lots within the suburb of Aintree
 are located to the east of PP5. PP2 and PP4 are bound by Kororoit Creek.
- South Western Highway, followed by rural residential and grazing land. Residential lots within the suburb of Thornhill Park are to the south of PP3.
- West The CBD of Melton, consisting of an industrial estate. A Caltex/Woolworths petrol station is on the Melton Highway, within 600 m of the western boundary of PP1.

2.3 Geology and Hydrogeology Maps

Regional geology and hydrogeology can provide useful information regarding potential pathways and receptors for soil and groundwater contamination.

2.3.1 Geology

The Geological Survey of Victoria Map Sheets, 1: 50,000 Scale indicates that the Precinct is underlain by a number of geological units, as summarised in **Table 2-2**.

Table 2-2: Geology of the Land within the Precinct

Geological Unit	Age	Extent / Coverage
Neo – Newer Volcanics Group – basalt flows. Comprised of olivine tholeiite, quartz tholeiite, basanite, basaltic icelandite, hawaiite, mugearite, minor scoria and ash, fluvial sediments: tholeiitic to alkaline; includes sheet flows and valley flows and intercalated gravel, sand, clay	Miocece to Holocene	Majority of PP2, PP3, PP4 and PP5All of PP1
Qa1 – Alluvium. Comprised of gravel, sand, silt: variably sorted and rounded; generally unconsolidated; includes deposits of low terraces; alluvial floodplain deposits	Pleistocene to Holocene	Associated with the Kororoit Creek and riparian zone in PP2 and PP4

Qm1 – swamp and lake deposits (Qm1). Grey to black carbonaceous mud, silt, clay, minor peat: generally unconsolidated; rare dolomite	Pleistocene to Holocene	Small sections of PP3, PP4 and PP5.
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The geological maps are presented in full in database search results in Appendix B.

2.3.2 Groundwater, Hydrology and Hydrogeology

A groundwater database search was conducted for an area within a two-kilometre (2 km) investigation buffer of the Precinct. A summary of the registered groundwater bores in the Department of Environment and Primary Industries (DEPI) Water Measurement Information System (WMIS) within the Precinct Parts is presented in **Table 2-3.**

Table 2-3 On-Site groundwater bore details

Precinct Part	# Bores	Bore ID	Groundwater Use	Depth (m)
1	9	WRK979005, 311297, 311315, 311299, 311298, 311300, 311314, 73235, 73239	Domestic & stock, non- groundwater	_
2	3	73232, WRK985303, WRK966525	Domestic & stock	-
3	12	73324, 73302, 145066, 73222, 139979, 73238, WRK973267, WRK978969, 311292, 73265, 73204, 73257	Domestic, stock, n on- groundwater and not known	-
4	13	73223, 73224, 73273, 73197, 73305, WRK956891, WRK956889, WRK956890, WRK970782, WRK971271, WRK970783, 311290, 73264	Domestic, stock, dryland salinity bore network, observation, nongroundwater, not known	2.20 – 2.80
5	10	73333, 73298 109575 109574 73266 73200, 73199, WRK985188, WRK985191, 73336	Stock, state observation network, groundwater investigation, domestic, stock	11.60 – 12.58

Due to overlap of the investigation buffers for the Precinct Parts, registered bores within the investigation buffers are not listed in this report; registered groundwater uses in lands surrounding the Precinct are summarised below to provide information on beneficial uses of groundwater likely to require protection in the region in accordance with the State Environment Protection Policy (*Waters*), 2018 (the 'Waters SEPP'):

- domestic use
- stock watering
- irrigation
- industrial.

The complete results of the groundwater database searches for the Precinct Parts are presented in **Appendix B**.

A review of the Department of Environment, Land, Water and Planning (DELWP) Depth to Watertable database (DELWP, 2015) indicates that depth to groundwater, aquifer type and groundwater salinity (assessed based on Total Dissolved Solids or TDS) varies across the Precinct, as summarised in **Table 2-4**.

Table 2-4 also summarises the groundwater segment in accordance with the Waters SEPP (2018) where beneficial uses of groundwater to be protected are based on salinity; this is based on the <u>lowest TDS/most sensitive</u> groundwater segment within the Precinct Part.

Table 2-4 Groundwater Depth, Aquifer Type and Groundwater Salinity details

Precinct	Depth t	Depth to Groundwater Aquifer/s		Salinity range	Groundwater Segment (as per
Part	Range (mbgl)	Coverage (%)	Aquilei/S	(mg/L)	Waters SEPP)
1	5 – 10	91	Fractured or	1 000 3 500	A2 C
1	10 - 20	8	fissured, extensive	1,000 - 3,500	A2 – C

	> 5	11	aquifers of low to	
2	5 – 10	51	moderate	
	10 - 20	36	productivity	
3	> 5	75		
3	5 – 10	24		
4*	> 5	88		
4	5 – 10	13		
5	> 5	91		
5	5 – 10	9		

Please refer to the complete results of the groundwater database searches for the Precinct Parts presented in **Appendix B** which provide heat maps to show mapped groundwater elevations across each Precinct Part.

Table 2-5 presents all protected beneficial uses of groundwater based on groundwater segment. Possible beneficial uses associated with the groundwater segments present around the Precinct are highlighted.

Some protected beneficial uses are precluded based on quality (salinity); some beneficial uses are considered likely based on registered bore uses in the area (as discussed above); and some are considered as potential or unlikely based on understanding of water use in the area or access to scheme water, meaning likelihood of groundwater for that use is low.

Table 2-5 Groundwater Beneficial Uses based on Groundwater Segment (from Waters SEPP 2018)

	SEGMENTS (MG/L TDS)						
	A1	A2	В	С	D	E	F
GROUNDWATER USE	(0 – 600)	(601 – 1,200)	(1,201 – 3,100)	(3,101 – 5,400)	(5,401 – 7,100)	(7,101 – 10,000)	>10,001
Water dependent ecosystems and species	✓	✓	✓	✓	✓	✓	✓
Potable water supply - desirable	✓						
Potable water supply – acceptable		✓					
Potable mineral water supply	✓	✓	✓	✓			
Agriculture and irrigation (irrigation)	✓	✓	✓				
Agriculture and irrigation (stock watering)	✓	✓	✓	✓	✓	✓	
Industrial and commercial	✓	✓	✓	✓	✓		
Water-based recreation (primary contact recreation)	✓	✓	✓	✓	✓	✓	√
Traditional Owner cultural values	✓	✓	✓	✓	✓	✓	√
Cultural and spiritual values	✓	✓	✓	✓	✓	✓	✓
Buildings and structures	✓	✓	✓	✓	✓		

		SEGMENTS (MG/L TDS)					
	A1	A2	В	С	D	E	F
GROUNDWATER USE	(0 – 600)	(601 – 1,200)	(1,201 – 3,100)	(3,101 – 5,400)	(5,401 – 7,100)	(7,101 – 10,000)	>10,001
Geothermal properties	✓	✓	✓	✓	✓	✓	✓

2.4 Topography and Surface Water

Surface elevation measured in metres Australian Height Datum (mAHD; otherwise referred to as height above sea level) varies across the Precinct, as summarised in **Table 2-6**, which also discusses potential direction of surface water flows that may shed from the land.

Table 2-6 Topography

Precinct Part	Approximate Surface Elevation Range (mAHD)	Expected direction of surface water flow and shedding off-site
1	120 - 142	To the southeast
2	113 - 141	To the southeast, towards Kororoit Creek
3	106 - 132	To the southeast
4	99 - 114	To the east
5	100 - 107	To the east

Contour mapping for the Precinct Parts are presented in Appendix B.

2.5 Australian Wetlands Database

A search of the Australian Wetlands database (Ramsar wetlands of Australia; DELWP) was conducted for each of the Precinct Parts. Ramsar wetlands are sites designated to be of international importance that are protected under the internationally ratified Ramsar Convention due to high biodiversity and/or presence of threatened/endangered/vulnerable or geographically uncommon flora and/or fauna.

There were no Ramsar wetlands listed within the Precinct or the investigations buffers around the Precinct Parts.

The complete results of the wetland database searches for the Precinct Parts are presented in Appendix B.

2.6 Australian Heritage Database

A search of the Australian Government Department of the Environment and Energy (DoEE) was conducted to identify sites of Commonwealth, national, and regional or state significance located within the Precinct Parts and within the 1 km investigation buffers. The full database search results are presented in **Appendix B** and summarised below:

- There were no sites listed on the Commonwealth Heritage List within the Precinct or the investigation buffers.
- There were no sites listed on the National Heritage List.
- There were no sites listed on the Victorian Heritage List.

2.7 Victorian Aboriginal Cultural Heritage Register

The Victorian Aboriginal Cultural Heritage Register and Information System (ACHRIS) provides information about the location and extent of areas of Aboriginal cultural heritage sensitivity and includes a register of Aboriginal places and objects, as required by the *Aboriginal Heritage Act 2006*. A search of the register through the 'Department of Planning and Community Development' (DPCD) Cultural Heritage Sensitivity register and database was conducted for each Precinct Part and surrounding land within a 1 km investigation buffer; the findings are summarised in **Table 2-7**.

The Kororoit Creek accounts for much of the hits from the database. *Please note: due to overlap of investigation buffers, there is some duplication in counts of off-site hits; the intention is to understand heritage areas in close proximity to the Precinct Parts which may preclude development within the Part or directly adjacent for ancillary development e.g. roads, services etc.*

Table 2-7 Heritage Database Search Results – Victorian Aboriginal Cultural Heritage Areas List

Precinct	Victoria	an Aboriginal Cultural Heritage Areas
Part	Within the Precinct Part	Within Investigation Buffer
1	0	7
2	1	4
3	2	3
4	3	16
5	3	14

The full database search results are presented in Appendix B.

2.8 Acid Sulphate Soil Risk

A search of the Commonwealth Scientific and Industrial Research Organisation (CSIRO) 'Atlas of Acid Sulfate Soils' was conducted to assess the presence of acid sulphate soils within the Precinct or 1 km investigation buffers. Acid sulfate soils may pose a risk to the environment when disturbed and exposed to oxygen, leading to oxidation of the soil and subsequent generation of sulfuric acid, which may be aggressive to concrete foundations and slabs or sub-surface metal pipework.

The searches of the CSIRO Acid Sulfate Soils database are summarised in Table 2-8.

Table 2-8 Acid Sulfate Soils

Precinct		Acid Sulfate Soils	
Parts	Probability of Occurrence (%) within Precinct Part	Probability of Occurrence (%) within Investigation Buffer	Distance from Precinct Part (m)
All	Extremely Low 1-5 %	Extremely Low 1-5 %	All land within buffer

Coastal Acid Sulfate Soils (CASS) are those that naturally occur along many parts of Victoria's coastal zone and may be deposited inland by alluvial or fluvial flows. The potential presence of CASS was not identified within the Precinct Parts or 1 km investigation buffers around the Precinct Parts.

The full database search results are presented in Appendix B.

2.9 Planning Overlays

Local government apply planning overlays that specific provisions and restrictions to the allowable activities and uses of a land. SMEC have conducted a review of planning overlays relevant to the potential for contamination or environmental constraints to potential development of the Precinct. The review identified the following planning overlays affecting the Precinct Parts as summarised in **Table 2-9**.

Please note, due to overlap of investigation buffers, to avoid unnecessary duplication:

- any planning overlays outside of the Precinct Part that also exist within the Precinct are not listed again as present within the investigation buffer
- those more than 300 350 m away are not listed, as it is assumed that due to distance they will not affect potential for development within that Precinct Part, but may affect access or ancillary development requirements (service installations etc.)
- any overlays within an adjacent Precinct Part and already discussed are not listed again.

Table 2-9 Planning Overlays

Precinct Part	Planning Overlays within Precinct Part	Planning Overlays within Investigation Buffer
1	_	PA01
2	ESO5	HO54
3	-	DCP03, DCP08
4	HO119, ESO2	ES05, LSI02, DCP04
5	HO205	DCP08, HO122, DCP07, HO115

Notes:

ESO2 – Environmental significance overlay – Schedule 2

ESO5 – Environmental significance overlay – Schedule 5

HO54 - Heritage overlay

HO115 – Heritage overlay

HO119 - Heritage overlay

HO122 – Heritage overlay HO205 – Heritage overlay

LSI02 – Land subject to inundation overlay – Schedule 2

PA01 - Public acquisition overlay 1

DCP03 – Development contributions plan overlay – Schedule 3

DCP04 – Development contributions plan overlay – Schedule 4

DCP07 – Development contributions plan overlay – Schedule 7

DCP08 - Development contributions plan overlay - Schedule 8

The full database search results are presented in Appendix B.

2.10 Natural Hazards

A search of the Department of Transport, Planning and Local Infrastructure (DTPLI) database was conducted to identify any designated bushfire prone areas within or surrounding the site. The designation allows local government to specify minimum construction standards aimed at improving bushfire protection for residential buildings. The findings are summarised in **Table 2-10**.

Table 2-10 Bushfire Prone Areas

Bushfire Prone Areas within Precinct Part	Bushfire Prone Areas within Investigation Buffer
All land within PP1, PP2, PP3, PP4	Majority of land within Investigation Buffer,
Majority of PP5, with the exception of 250 by 10 m section of the Western Highway	excepting portions of established residential subdivisions.

The DTPLI (2019) database search also recorded a bushfire in 1965 which affected all precinct parts.

A search of the Department of Transport, Planning and Local Infrastructure (DTPLI) database was conducted to identify any designated 1 in 100-year modelled flood extent zones within or surrounding the Precinct Parts. The findings are summarised in **Table 2-11**.

Table 2-11 Flood – 1 in 100 Year Modelled Flood Extent

Precinct Part	1 in 100 Year Modelled Flood Extent within Precinct Part	1 in 100 Year Modelled Flood Extent within Investigation Buffer
1	None	Land within the Melton CBD

2	Land in proximity to Kororoit Creek	Land in proximity to Kororoit Creek
3	None	Land in proximity to Kororoit Creek
4	Land in proximity to Kororoit Creek	Land in proximity to Kororoit Creek
5	None	Land in proximity to Kororoit Creek

The full database search results are presented in **Appendix B**.

2.11 Ecological Constraints

As presented in Section 2.10, land within the Precinct is subject to Environmental Significance Overlays (ESO2 and ESO5). Both schedules relate to the protection of the Kororoit Creek corridor and associated ecological values (i.e. remnant vegetation and habitat for threatened flora and fauna). The creek corridor (incorporating the ESO) is contained within a BCS conservation area and is therefore protected from development, upholding the objectives of the ESO.

Vulnerable, threatened or endangered vegetation, or vegetation of national significance as listed in the Native Vegetation (Modelled 2005 Ecological Vegetation Classes) database which are within the Precinct Parts are presented in **Table 2-12**. The presence of these EVCs may act as a constraint on development. *This is covered in more detail in the separate ecological assessment prepared for the Precinct*.

Table 2-12 Native Vegetation

EVC Name	EVC Code	Conservation Status	Precinct Part EVC located within
Plains Grassy Wetland	0125	Endangered	PP1, PP3, PP4, PP5
Plains Grassland	0132	Endangered	PP1, PP3, PP4, PP5
Creekline Grassy Woodland	0068	Endangered	PP2, PP4

The full database search results are presented in Appendix B.

Searches of the Bureau of Meteorology (BoM; 2017) Groundwater Dependent Ecosystems (GDE) Atlas and Inflow Dependent Ecosystems (IDE) Likelihood Database were conducted to assess for the potential presence of ecosystems within the Precinct Parts dependent on groundwater (which may be extracted as a result of proposed redevelopment) or inflow (which may be amended by drainage modifications due to development). A summary of the findings is presented in **Table 2-13** (GDE) and **Table 2-14** (IDE).

Please note: the GDE and IDE are related to the presence of rivers, wetlands and EVCs as identified in other sections of this report and will be covered in more detail in the ecological assessment being prepared for the Precinct. As wetlands are potentially sensitive environmental receptors, these are listed if within 300 - 350 m of the Precinct Part.

Table 2-13 Groundwater Dependent Ecosystems

Groundwater dependent ecosystems (GDE) potential	GDE type	Ecosystem type	Aquifer geology	Precinct part GDE located within
Low potential GDE - from national assessment	Terrestrial	Vegetation	Unconsolidated sedimentary	PP2
Moderate potential GDE – from regional studies	Aquatic	Wetland	-	PP1
Moderate potential GDE – from national assessment	Terrestrial	Vegetation	Fractured rock	PP2
Moderate potential GDE – from national assessment	Terrestrial	Vegetation	Fractured rock	PP2

Groundwater dependent ecosystems (GDE) potential	GDE type	Ecosystem type	Aquifer geology	Precinct part GDE located within
Moderate potential GDE – from national assessment	Terrestrial	Vegetation	Unconsolidated sedimentary	PP1
Moderate potential GDE – from regional studies	Aquatic	Wetland	-	PP5
High potential GDE – from national assessment	Aquatic	River	Fractured rock	PP1, PP2
High potential GDE – from national assessment	Terrestrial	Vegetation	Fractured rock	PP1, PP2, PP5
High potential GDE – from national assessment	Terrestrial	Vegetation	Unconsolidated sedimentary	PP1

The full database search results are presented in Appendix B.

Table 2-14 Inflow Dependent Ecosystems

Inflow Dependent Ecosystems (IDE) Potential (out of 10)	GDE Type	Ecosystem Type	Aquifer Geology	Precinct Part IDE located within
6	Aquatic	Wetland	_	PP3, PP4, PP5
6	Terrestrial	Vegetation	Fractured rock	PP2, PP3, PP4, PP5
7	Terrestrial	Vegetation	Fractured rock	PP2, PP4
7	Terrestrial	Vegetation	Unconsolidated sedimentary	PP2
8	Terrestrial	Vegetation	Fractured rock	PP2
8	Terrestrial	Vegetation	Unconsolidated sedimentary	PP4
8	Aquatic	Wetland	-	PP4, PP5
9	Terrestrial	Vegetation	Fractured rock	PP2, PP4
9	Terrestrial	Vegetation	Unconsolidated sedimentary	PP2, PP4
10	Aquatic	River	Fractured rock	PP2, PP4

The full database search results are presented in Appendix B.

3 Site History

3.1 Historical Aerial Photography

Historical aerial photography for the period between 1961 and 2019 was reviewed as part of this assessment to determine previous site uses and potential for contaminating activities to have occurred. To assess for any significant changes in land use within a gap in photographic coverage of the Site (between 2012 and an aerial photograph for 2018, aerial photography from 2015 was viewed from Google Inc. and Google Earth ProTM).

Please note: to avoid duplication, the summaries in tables below do not include discussion of changes in land within other Precinct Parts already described in other tables.

The aerial photography is presented in full database search results in Appendix B.

Table 3-1 to **Table 3-5** each summarise the review of aerial photography for each the Precinct Parts and surrounding land.

Please note: to avoid duplication, the summaries in tables below do not include discussion of changes in land within other Precinct Parts already described in other tables.

Table 3-1: Historical Aerial Photography Review – Precinct Part 1

DATE	OBSERVATIONS
	On-Site On-Site
1961	Land appears to have been subdivided, cleared of vegetation and used for grazing. A road transects through the southern corner of the site (what is now the Western Freeway). An urban residential dwelling is present to the south of PP1.
	Off-Site
	Surrounding land has also been cleared and subject to agricultural uses, an urban residential dwelling is present to the south of PP1.
	On-Site
	No significant changes since the 1961 imagery are apparent.
1968	Off-Site
	A racetrack and two urban residential lots have been constructed to the north of PP1. No other significant changes since the 1961 imagery are apparent.
1074	On-Site and Off-Site
1974	No significant changes since the 1968 imagery are apparent.
	On-Site
	No significant changes since the 1974 imagery are apparent.
1985	Off-Site
	To the south west of the site, the Western Freeway has undergone construction to the current day layout. Industrial land use (construction of storage sheds) is present to the west of PP1 within the current industry precinct of Melton.
	On-Site
1990	Three clusters of Dwelling and shed structures are present in the northern section of PP1 and likely for the grazing/agriculture land use. Melton Highway has been constructed along the northern boundary of PP1.
	Off-Site
	The Western Freeway has been further constructed, within additional lanes. Further development has occurred to the Melton Industry precinct to the southwest of the site. A large excavation is present in what is currently the Melton recycling facility, suggesting quarrying activity.

DATE	OBSERVATIONS
2009	On Site Additional urban residential dwellings and structures have been constructed throughout PP1. A race track has also been constructed in the southern portion of PP1. Agriculture land use in Lot 5LP200559 appears to have intensified.
	Offs Site Residential development of Melton has expanded to the northwest of PP1. The excavation observed within the Melton Recycling Facility appears to have been filled in, potentially indicating landfilling activities.
2019	On-Site No significant changes since the 2009 imagery are apparent.
	Off-Site Further residential and industrial development has occurred within the respective footprints identified in the previous 2009 and 2019 images.

Table 3-2: Historical Aerial Photography Review – Precinct Part 2

DATE	OBSERVATIONS
1974	On-Site Land appears to have been subdivided, cleared of vegetation and used for grazing. Mt Cottrell Road is present along the eastern boundary and Melton Highway is present along the northern boundary. A residential building and storage sheds are present in the norther corner of PP2. Privately owned dams are apparent along the western boundary and a third dam is present along the northern boundary. Off-Site Surrounding land has also been cleared and subject to agricultural uses, an urban residential dwelling (with shed structures) are apparent to the norther and south of PP2.
1985	On-Site No significant changes since the 1974 imagery are apparent. Off-Site A racetrack has been constructed to the norther of PP2. No other significant changes since the 1974 imagery are apparent.
1990	On-Site No significant changes since the 1974 imagery are apparent. Off-Site Further urban residential dwellings and structures are visible to the north and east of PP2. No other significant changes since the 1974 imagery are apparent.
2009	On Site Additional urban residential dwellings and structures have been constructed throughout PP2. Car storage on unsealed grounds appears to be present in Lot 3LP216717 and 4PS304449. More intensive agricultural land use is apparent in Lot 5PS304449. Offs Site Additional urban residential dwelling have been constructed to the north of PP2.
2019	On-Site

DATE	OBSERVATIONS
	Intensive agricultural land use appears to have ceased in Lot 5PS304449.
	Off-Site
	No significant changes since the 2019 imagery are apparent.
	No significant changes since the 2019 imagery are apparent.

Table 3-3: Historical Aerial Photography Review – Precinct Part 3

DATE	OBSERVATIONS
1968	On-Site Land appears to have been subdivided, cleared of vegetation and used for grazing. A road (which is now currently the Western Freeway) Road is present along the southern boundary and Beatty Road is present, transecting PP3 from west to east. Urban residential dwellings with agriculture shed structures are present throughout PP3. A long shed structure is present in 3LP137020. It isn't clear if this was used for cattle dipping purposes. Off-Site
	Surrounding land has also been cleared and subject to agricultural uses.
1974	On Site A large body of water is present within lots 4\LP217378 and 1\PS446475, potentially a privately owned dam. No other significant changes since the 1968 imagery are apparent.
	Off Site No significant changes since the 1968 imagery are apparent.
1985	On-Site Although the shed structure in Lot 3LP137020 is still apparent, paddocks within the lot no longer appear to be divided, suggesting a different site management. An intensification of agricultural land use is apparent in lots 1LP217378, 2LP217378 and 3LP217378. The Western Freeway appears to have been upgraded since the 1974 imagery.
	Off-Site Intensification of agricultural land uses are also apparent in the surrounding properties. No significant changes since the 1968 imagery are apparent.
	On-Site No significant changes since the 1985 imagery are apparent.
1991	Off-Site No significant changes since the 1985 imagery are apparent.
2009	On Site Further intensification of agricultural land use is apparent in lot 1LP217378 and appears to contain an orchid. The body of water previously present over lots 4LP217378 and 1PS446475 appears to have dried out.
	Offs Site No significant changes since the 1991 imagery are apparent.
2018	On-Site The BP service station has been constructed on Lot 1PS537638. No other significant changes since the 1991 imagery are apparent.

DATE	OBSERVATIONS
	Off-Site
	Residential development of Thornhill Park (to the south of the site) has commenced. No other significant changes since the 1991 imagery are apparent.

Table 3-4: Historical Aerial Photography Review – Precinct Part 4

DATE	OBSERVATIONS
	On-Site
1962	Land appears to have been subdivided, cleared of vegetation and used for grazing. Regional main roads have been established within PP4, including Leakes Road, Beattys Road and Paynes Road. Residential dwelling and shed structures are present on the agricultural properties.
	Off-Site Surrounding land has also been cleared and subject to agricultural uses.
	On Site
1069	No significant changes since the 1962 imagery are apparent.
1968	Off Site
	No significant changes since the 1962 imagery are apparent.
	On Site
1974	No significant changes since the 1968 imagery are apparent.
	Off Site
	No significant changes since the 1968 imagery are apparent.
	On-Site No significant changes since the 1974 imagery are apparent.
1985	Off-Site
	No significant changes since the 1974 imagery are apparent.
	On-Site
1991	More intensive agricultural land use is apparent on lots 1LP141752 and 2LP141752 around the homesteads. A racetrack is apparent on lot 1TP613184. The appears to be an excavation in the previous water body footprint in lot 3-7PP2927.
	Off-Site
	No significant changes since the 1985 imagery are apparent.
	On Site
2009	Scrape metal stockpiling is apparent on lots 1LP127283 and 1TP118945. A Further intensive agriculture land use is apparent on lot 1TP542527. Potential stockpiling of soils in lot 1TP562688. The excavation previously observed on lot 3-7PP2927 in 1991 appears to have been filled.
	Offs Site
	No significant changes since the 1991 imagery are apparent.
	On-Site
2018	The shade structures in Lot 1TP542527 appear to be in disrepair/abandoned. No other significant changes since the 2009 imagery are apparent. The water body in 3-7PP2927 appears to have been further filled.

DATE	OBSERVATIONS
	Off-Site
	No significant changes since the 2009 imagery are apparent.

Table 3-5: Historical Aerial Photography Review – Precinct Part 5

DATE	OBSERVATIONS
	On-Site
1962	Land appears to have been subdivided, cleared of vegetation and used for grazing. A road (which is now currently the Western Freeway) Road is present along the southern boundary.
	Off-Site
	Surrounding land has also been cleared and subject to agricultural uses.
	On Site
1968	No significant changes since the 1962 imagery are apparent.
1900	Off Site
	No significant changes since the 1962 imagery are apparent.
	On Site
1974	An urban residential dwelling with shed structures is apparent in lot 1TP562688. No other significant changes since the 1968 imagery are apparent.
	Off Site
	No significant changes since the 1968 imagery are apparent.
	On-Site
1985	Additional homesteads (with shed structures) are apparent within the allotments in PP5. The western freeway along the southern boundary appears to have been upgraded. No other significant changes since the 1974 imagery are apparent.
	Off-Site
	No significant changes since the 1974 imagery are apparent.
	On-Site
1991	No significant changes since the 1985 imagery are apparent.
1991	Off-Site
	The residential development of Rockbank is apparent to the south east of PP5.
	On Site
2009	Scrap metal stockpiling is apparent on lot 5LP137020. No other significant changes since the 1974 imagery are apparent. Significant works and upgrades have occurred the Western Freeway and Leakes Road intersection, including offramps and bypass bridges.
	Offs Site
	Additional racetracks have been constructed on the agricultural lots to the south of PP5.
	On-Site
2018	As with PP4, the water body in 3-7PP2927 appears to have been further filled.
	Off-Site

DATE	OBSERVATIONS
	The residential development of Rockbank has continued to expand (located to the south east of the site). No other significant changes since the 2009 imagery are apparent.

3.2 EPA Priority Sites Register

The Victorian EPA Priority Sites Register (PSR) was searched. The PSR records locations where the EPA has issued a Clean-Up Notice (CUN) or Pollution Abatement Notice (PAN) for a site typically known to contain polluted soil and/or groundwater that may pose a risk to human health or to the environment. The Priority Sites Register does not list all sites known to be contaminated in Victoria and as such a site should not be presumed to be free of contamination if it does not appear on the Priority Sites Register.

No current or former Priority Sites listed on the Register were within the Precinct. Current or former Priority sites within the 1 km investigation buffer are presented in **Table 3-6**.

Table 3-6 EPA Priority sites within the investigation buffer area (outside of precinct)

Notice number	Current/former	Address	Suburb	Issue	Distance from site
90008182	Current	43 - 67 FERRIS RD	COBBLEBANK	Industrial waste has been dumped at the site. Requires assessment and/or clean up.	745m (south west)
NO1414	Former	ALLOTMENT 2 CNR TARLETONS RD & LEAKES RD	ROCKBANK	Legacy EPA Database Pollution Notice	226m (north east)

The PSR record for 43 - 67 FERRIS RD coincides with the observed excavation and filling at the (current) Melton Recovery Centre which was observed in the historic aerial images. No observations were noted in the historic aerial photos for the PSR record for the corner of Tarletons Road and Leakes Rd to indicate potential presence of contamination and little information is presented in the PSR.

Due to PANs being revoked and removed from the published lists, this is noted to not be an exhaustive list of all past pollution notices.

The full EPA database search results are presented in Appendix B.

3.3 Environmental Audit Reports and Groundwater Quality Restricted Use Zones

The EPA records of environmental audit reports and groundwater quality restricted use zones (GQRUZ) within the 2km investigation buffers around the Precinct Parts were searched and the results are summarised as follows:

- There were no GQRUZ identified within the Precinct.
- An audit site (EPA Audit ID 73278-1) was recorded 155 m to the east of PP5, relating to a former waste dump area completed in 2015. Based on distance from the Precinct it is considered unlikely this site has impacted on land within the Precinct. As such, this audit is not discussed further.

The full EPA database search results are presented in Appendix B.

3.4 EPA Licenced Activities

EPA records were searched for listings of any sites containing Licenced Activities and Works Approval within the Precinct or 1 km investigation buffers, identified sites are presented in **Table 3-7**.

Table 3-7 EPA licenced activities

Licence Number	Status	Organisation	Premise Address	Suburb	Activities	Distance (m)	Direction	Precinct Part
10711	Former EPA	COOPER BROS HOLDINGS PTY LTD [MELTON]	3 27-29 NORTON DR	MELTON VIC 3337	A01 Prescribed Industrial Waste Management	891	West	1
1000980	Works Approval	R P PETROLEUM PTY LTD [ROCKBANK]	1267 BEATTYS RD ROCKBANK VIC 3335	ROCKBANK	A03 Sewage Treatment	_	_	Within PP3

The full EPA database search results are presented in Appendix B.

3.5 Defence 3 Year Regional Contamination Investigation Program

The Defence 3 Year Regional Contamination Investigation Program database was searched for any sites that have been assessed as part of the program; there were no sites within the Precinct or 1 km investigation buffers.

The full database search results are presented in Appendix B.

3.6 Defence PFAS Investigation and Management Program

The Defence PFAS Investigation and Management Program database was searched for any sites that have been assessed as part of the program; there were no sites within the Precinct or 1 km investigation buffers.

The full database search results are presented in Appendix B.

3.7 Airservices Australia National PFAS Management Program

The Airservices Australia National PFAS Management Program database was searched for any sites that have been assessed as part of the programme; there were no sites within the Precinct or 1 km investigation buffers. The full database search results are presented in **Appendix B.**

3.8 Waste Management Facilities

A national/state waste management facility was recorded 274 m south west of PP1, being the Melton Recycling Facility (IDs 258/317 respectively), owned by Melton Shire Council, 54 Ferris Road.

Six industrial waste sites were within a 1 km buffer of PP1. The full database search results are presented in **Appendix B.**

3.9 Historical Maps, Historical Melways

Historical maps, including Melways maps were reviewed to assess for any information indicative of potentially contaminating activities to have occurred within the Precinct Parts or in the land immediately surrounding. The results of these searches are summarised in **Table 3-8** below.

Due to overlap in coverage for the Precinct, anything further than 500 m from the edge of each Precinct Part is generally not discussed in detail to avoid duplication; this is also based on the reasonable expectation that any potentially contaminating activity over 500 m away is unlikely to have caused environmental impacts on the land.

Table 3-8: Historical Maps review

Precinct part	Year	Potentially contaminating activities within Precinct Part	Potentially contaminating activities within investigation buffer
	1916	No indications apart from Western Freeway.	No indications apart from Western Freeway.
	1938	No indications apart from Western Freeway.	No indications apart from Western Freeway.
	1982	No indications apart from Western Freeway.	No indications apart from Western Freeway.
1	1986	No indications apart from Western Freeway.	No indications apart from Western Freeway. Melton Municipal Depot within 300 m of the western corner of PP1.
	1998	No indications apart from Western Freeway.	Western Freeway. Melton Municipal Depot within 300 m of the western corner of PP1.
	2009	No indications apart from Western Freeway.	Western Freeway. Melton Industrial precinct.
	1916	No indications of contaminating activities.	No indications apart from Western Freeway.
2	1938	No indications of contaminating activities.	No indications apart from Western Freeway.
_	1982	No indications of contaminating activities.	No indications apart from Western Freeway.
	2009	No indications of contaminating activities.	No indications apart from Western Freeway.
	1916	No indications apart from Western Freeway.	No indications apart from Western Freeway.
	1938	No indications apart from Western Freeway.	No indications apart from Western Freeway.
	1982	No indications apart from Western Freeway.	No indications apart from Western Freeway.
3	1986	No indications apart from Western Freeway.	No indications apart from Western Freeway.
	1998	No indications apart from Western Freeway.	Western Freeway. Readymix Quary within 500m of the southwest of PP3. Chickadee Stud Poultry Farm within 200m to the east of PP3.

Precinct part	Year	Potentially contaminating activities within Precinct Part	Potentially contaminating activities within investigation buffer
	2009	No indications apart from Western Freeway.	Melton Recycling Centre (formally the Readymix Quary) within 500m to the southwest of PP3.
	1916	No indications apart from road/track construction.	Western Freeway.
	1938	No indications apart from road/track construction.	Western Freeway.
4	1982	No indications apart from road/track construction.	Western Freeway. See PROHIBITED LAND for PP5.
	1998	No indications apart from road/track construction.	Western Freeway. See PROHIBITED LAND for PP5.
	2009	No indications apart from road/track construction.	Western Freeway. See PROHIBITED LAND for PP5.
	1916	No indications apart from road/track construction and Western Freeway.	Melbourne – Ballarat Railway line within 800 m south of PP5. Record of a quarry within 1000 m south of PP5.
	1938	No indications apart from road/track construction and Western Freeway.	Melbourne – Ballarat Railway line within 800 m south of PP5.
-	1982	No indications apart from road/track construction and Western Freeway.	Melbourne – Ballarat Railway line within 800 m south of PP5.
5	1998	No indications apart from road/track construction and Western Freeway.	Melbourne – Ballarat Railway line within 800 m south of PP5. Land adjacent to the west of PP5 listed as PROHBITED AREA Land adjacent to the west of PP5 listed as PROHBITED AREA. Use by the Army – Royal Australian Signals.
	2009	No indications apart from road/track construction and Western Freeway.	Melbourne – Ballarat Railway line within 800 m south of PP5.

The full database search results are presented in Appendix B.

3.10 Historical Business Directories

Historical UBD and Sands and McDougall's Business Directories were reviewed to assess for the presence of potentially contaminating land uses, businesses or activities within or surrounding the Site. The years reviewed were 1905, 1925, 1945, 1950, 1960-62, 1970, 1980, and 1991. The search also included listings of dry cleaners, motor garages, service stations premise or road intersection matches for the period 1948 to 1992. Identified listings are presented in **Table 3-9**.

Table 3-9 Historical business directories

Precinct Part	Year	Potentially contaminating activity within precinct part	Potentially contaminating activity within investigation buffer				
1	1905 – 1970	Although businesses for "MOTOR GARAGES & SERVICE STATIONS" were recorded, businesses are likely to be outside of investigation area (detected due to limitations in stored data).					
2	1905 – 1991	No records in Precinct Part or investigation bu	No records in Precinct Part or investigation buffer.				
3	1905 – 1980	Although businesses for "MOTOR GARAGES & SERVICE STATIONS" were recorded, businesses are likely to be outside of investigation area (detected due to limitations in stored data).					
4	1905 – 1991	No records in Precinct Part or investigation buffer.					
5	1905 – 1991	Although businesses for "MOTOR GARAGES & SERVICE STATIONS" were recorded, businesses are likely to be outside of investigation area (detected due to limitations in stored data).					

3.11 Other

There are no listings of historical mining activities within the Precinct or buffers around the Precinct Parts.

There are no listings of former gasworks sites within the Precinct or buffers around the Precinct Parts.

The full database search results are presented in **Appendix B**.

3.12 Reports on the Site and/or Adjacent Sites

SMEC was unable to locate any reports relating to environmental assessments for land parcels within the Precinct. Assessments relating to other PSP areas in the region were found but did not contain information relevant to this assessment.

4 Preliminary Conceptual Site Model

The objective of the Conceptual Site Model (CSM) is to summarise and encapsulate pertinent information derived from the many studies undertaken at the Precinct and surrounding areas into a document which clearly identifies the following, and how they inter-relate:

- The history of activities and land development at the Precinct and surrounding properties, including potentially contaminating activities and land uses.
- The environmental setting at the Precinct and surrounding properties.
- The inferred sources, nature and extent of contamination, including the various media affected by the contamination.
- The mechanisms for transport and attenuation of the contaminants, and exposure of identified receptors to the contamination.
- The potential health and environmental risks which the identified contamination is inferred to pose.
- The potential contamination threat to the proposed development based on current and previous investigation work.

The main concerns for the proposed development of land within the Precinct relate to historical, recent and current land uses, including:

- Operation of a service station on Lot 1PS537638, which would involve:
 - High volumes of fuel storage.
 - Increased likelihood of fuel spills.
 - Increased likelihood of fuel storage leaks.
 - Storage of chemicals, potentially including firefighting foams.
- Non-intensive and intensive agricultural uses observed throughout the precinct which potentially involved:
 - Pesticide storage and handling.
 - Petrol storage and handling.
- Potential rearing and pasturing of livestock observed throughout the precinct, which may have involved:
 - Petrol storage and handling.
 - Construction of cattle dips. Although no cattle dips were clearly identified in aerial photos, cattle dips (and the use of arsenic treatments) were commonly constructed on cattle raising properties.
 - Burial of livestock although no burial pits were identified, cattle burial pits were commonly progressed on cattle raising properties.
- Rural residential homesteads throughout the alignment, which potentially involved:
 - demolition of aged structures containing Asbestos Containing Material) (ACM and/or lead-based paints, and rural and high-density residential uses.
 - septic tanks.
- Uncontrolled stockpiling of materials observed in lots 3LP216717 and 4PS304449, 1LP127283, 1TP118945 and 5LP137020.
- Importation of controlled and uncontrolled fill in Lot 3–7\PP2927.
- Use of land adjacent to the east of the precinct by the Defence Force, which contains the potential for exploded or unexploded ordinances. It is noted that the precinct or land used by the defence force are not listed on the UXO register. The Rockbank residential development has also progressed on the land used by the Defence Force. This lowers the likelihood of UXO or EO occurrence within the precinct.
- The filling of the Readymix Quary with landfill (now the Melton Recycling Centre), proximate to the precinct.
- Use of the Western Freeway and Melton Highway.

These current and former activities have the potential to cause soil contamination, and potentially groundwater contamination.

4.1 Summary of Preliminary CSM

A summary of the CSM is presented in Table 4-1.

Table 4-1: Summary of Conceptual Site Model

Activity	Source	Exposure Pathways	Receptor
Agriculture (Onsite) Livestock (Onsite)	Use of Pesticides (organochlorine and organophosphate (OC/OP)), herbicides, nutrients (nitrogen, phosphorus), fertilisers (metals, ammonia), nitrates Cattle dips for topical pest control for		On-Site:
	livestock – OC and OP pesticides and heavy metals, synthetic pyrethroids Livestock carcass and burial pits – Biological Oxygen Demand (BOD), nutrients, oil and grease	Inhalation,	 Site occupiers Future site users, construction site workers, contractors, sub-surface
Stockpiling/impo rtation of fill (Onsite)	Importation of fill / uncontrolled fill, illegal dumping – Total Petroleum Hydrocarbons (TRH), benzene, toluene, ethyl-benzene and xylenes (BTEX, metals, pesticides, asbestos	dermal contact and ingestion of contaminated soil, water, air.	 maintenance workers Livestock Flora and fauna Ecosystems – inflow and groundwater dependent
Urban residential structures (onsite)	Septic tanks, grey water drains – enteric bacteria and faecal coliforms Demolitions waste from former buildings and uncontrolled waste disposal - Asbestos, lead	Groundwater diffusion from up-gradient land uses to the Site.	ecosystems Off-Site: Downgradient water users Flora and fauna
Service station (onsite)	Storage use and leakages of fuels – heavy metals, TPH, BTEX.	Surface water and run-off	Residents of surrounding properties
Landfilling (offsite)	Decomposition of wastes to leachate – metals, nutrients.	and run-off overland flows.	 Workers and visitors to surrounding properties,
Defence Force land use (offsite)	UXO/XO ordnances – UXO, metals.		 contractors etc Ecosystems – inflow and groundwater dependent ecosystems
Freeway (onsite and offsite)	Road use – asbestos, metal, TPH, BTEXN.		

5 Conclusions and Recommendations

5.1 Conclusions

The review of Precinct history found that the land within the Precinct was previously used primarily for grazing and agricultural purposes. Main road corridors such as the Western Freeway and Melton Highway which are along and within the precinct boundaries have been in use throughout the history of the site. The surrounding land has been and is currently subject to similar uses as land within the Precinct.

Based on the information reviewed, the potential sources of contamination identified as part of this PSI are as follows:

Onsite:

- Agriculture heavy metals, pesticides/herbicides (OC/OPs), Total Petroleum Hydrocarbons (TPH), volatile hydrocarbons benzene, toluene, ethyl-benzene and xylenes (BTEX), Polycyclic Aromatic Hydrocarbons (PAHs), Poly Chlorinated Biphenyls (PCBs)
- Fuel and oil storage and use TPH, TRH, BTEX, lead
- Importation of fill, illegal dumping, stockpiling TPH, TRH, BTEX, MAH, heavy metals, asbestos
- Livestock Carcasses and Burial Pits BOD, nutrients, oil and grease
- Septic Tanks and Grey Water Tanks detergents, enteric and faecal bacteria, nutrients
- Service Station Storage use and leakages of fuels (heavy metals, TPH, BTEX)
- Main road corridors asbestos, metals, TPH, BTEXN.

Offsite:

- Melton Recycling Centre, which contained landfilling of the Readymix Quary (decomposition of wastes to leachate – metals, nutrients).
- Use of adjacent land by the Defence Force, now the Rockbank residential development (UXO/XO ordnances

 UXO, metals).

The DSE Assessment Matrix (Figure 1) has been adopted for determining any requirements further investigation considering the identified areas of potential concern and the proposed sensitivity of the development. Land use has been assumed to be "sensitive" due to proposed dwellings and residential buildings.

PROPOSED POTENTIAL FOR CONTAMINATION LAND-USE (as indicated in Table 1) High Medium Low Sensitive Uses Child care centre, B C pre-school or primary school Dwellings, residential B C buildings etc. Other Uses C Open space B C B C C Agriculture C C Retail or office BIndustry or warehouse B C C

Figure 1 - DSE 2005 Table 2 Assessment Matrix

- A. Require an environmental audit as required by Ministerial Direction No. 1 or the Environmental Audit Overlay when a planning scheme amendment or planning permit application would allow a sensitive use to establish on potentially contaminated land. An environmental audit is also strongly recommended by the SEPP where a planning permit application would allow a sensitive use to be established on land with 'high potential' for contamination.
- B. Require a site assessment from a suitably qualified environmental professional if insufficient information is available to determine if an audit is appropriate. If advised that an audit is not required, default to C.
- C. General duty under Section 12(2)(b) and Section 60(1)(a)(iii) of the Planning and Environment Act 1987.

The review of current and previous site uses have identified the following activities associated with the site's use for grazing and agricultural purposes, having a "medium potential for contamination" as defined in Table 1 of the DSE (2005) guideline:

- Possible storage and use of chemicals and fuels; and
- Waste and Building materials.

This triggers assessment level 'B' which has the requirement of "a site assessment from a suitably qualified environmental professional if insufficient information is available to determine if an audit is appropriate. If advised that an audit is not required, default to C". Should these road corridors be retained (i.e. not developed into residential land), the assessment level would default to level 'C'.

A high potential for significant contaminant to be (or become) present has been identified for:

The service station within Lot 1PS537638 (for the activity of "service stations/fuel storage")

This triggers assessment level 'A' which requires "an environmental audit as required by Ministerial Direction No. 1 or the Environmental Audit Overlay when a planning scheme amendment or planning permit application would allow a sensitive use to establish on potentially contaminated land." However, based on the age of the service station and the likelihood the construction adhered to stringent guidelines, a trigger assessment level 'B' may be more appropriate.

The remainder of the precinct has been indicated to be a *low* potential for significant contamination, triggering assessment level C requiring "General duty under Section 12(2)(b) and Section 60(1)(a)(iii) of the Planning and Environment Act 1987". It should be noted however that this assessment was a high level review and there is potential for contamination to be present in areas where potential was not identified.

Based on this assessment, the majority of the site is considered generally suitable for proposed redevelopment for urban uses including residential. Application of an Environmental Audit Overlay (EAO) over the Site or environment audit under Section 53v of the Environment Protection Act 1970 (as amended 2018) - Level 'A' assessment as per DSE (2005) is however required for the high potential land use activities. An estimate of the assessment requirements is visually presented in Figure 2 of **Appendix A**.

It is understood that some of the land may be developed for less sensitive purposes, which would then reduce the level of assessment required e.g. where a proposed redevelopment land use includes "Other Uses" e.g. agriculture, or commercial/industrial e.g. retail or office, industry or warehouse.

To comply with duty of care (Level 'C' assessment as per DSE 2005) and further investigation including as a minimum detailed site inspection and walkover of land parcels (Level 'B' assessment as per DSE 2005) is required at the land within the Precinct to further inform on potential for the presence of contamination and/or contaminating activities. This would then highlight whether further investigation e.g. limited intrusive soil and/or groundwater assessment would be warranted. The conclusions of this report are still subject to further assessment to confirm the condition of land within the Precinct observed during this investigation and areas not able to be visually assessed from the ground.

5.2 Recommendations

Based on this review and the conclusions above, SMEC recommends liaison with a suitably qualified and experienced consultant to assess the level of further assessment required at the Precinct (or portion of land within the Precinct) to comply with requirement for a site assessment and duty of care requirements as per DSE (2005) guidance, including detailed site inspections and walkovers and dependant on findings, further assessment may include intrusive soil assessment and/or intrusive groundwater investigation, if considered appropriate. This would serve to assess the potential presence, severity and extent of contamination at specific areas within the Precinct as identified (if any) and

inform on the potential hazards to environmental or human health and requirements for any further assessment or site clean-up to ensure the Site is suitable for the proposed redevelopment.

This should be targeted to ensure detailed assessment of land proposed for more sensitive uses and/or where land has been developed/disturbed or subject to more intensive agricultural uses.

Appendix A, Figure 2 presents the portions of the Precinct where Level 'C' assessment as per DSE (2005) is required; this is based on low risk of the presence of contamination and where assessment is likely to have already been conducted as part of the Planning Permit application process. **Appendix A**, Figure 2 also presents those areas of the Precinct where Level 'B' and 'A' assessment is required.

DSE (2005) indicates that the planning or responsible authority (e.g. Council and/or EPA) may require some or all of the additional site assessment recommended below be completed as a condition of the planning or development permit application; however, it should be noted that this guidance is clearer in regards to sites where an environmental audit overlay is applicable, or where any preliminary investigations determine an environmental audit is warranted based on potential for contamination and proposed land use as per Table 2 of the guidance.

Limited/targeted intrusive soil assessment would be recommended at the following:

- Any locations where waste has been historically dumped / stockpiled, or fill has been imported e.g. for surface levelling or to fill in former dams. This would include lots 3LP216717, 4PS304449, 1LP127283, 1TP118945, 5LP137020 and3–7\PP2927;
- Any locations where intensive agricultural activities have been identified, including areas where fertilisers have been stockpiled, market gardens/nurseries, farming operations, intensive livestock pasturing operations;
- Any locations where inspection of farm storage sheds/buildings identifies the potential presence of contamination or potentially contaminating activities (mechanical workshops, heavy equipment storage and maintenance;
- Any locations where chemical handling/mixing/storage has been identified, or where there is evidence of spills/losses of fuels/oil/pesticides/herbicides;
- Service station; and
- Former building/structure locations where demolition may have caused impacts from asbestos or other materials associated with vintage structures (PCBs, lead-based paints etc).

Any further assessment should be completed prior to any development permit application process. Intrusive sampling and analysis must be undertaken in accordance with the following standards:

- National Environment Protection (Assessment of Site Contamination) Measure (1999 NEPM as amended 2013)
- Australian Standard (2005) Guide to the investigation and sampling of sites with potentially contaminated soil
 Part 1: Non-volatile and semi-volatile compounds (AS 4482.1-2005)
- Australian Standard (1999) Guide to the sampling and investigation of potentially contaminated soil Part 2: Volatile substances (AS 4482.2-1999)
- Victoria Environment Protection Authority, Industrial Waste Resource Guidelines (IWRG) Soil Sampling, 2009.

The results of the sampling and analysis would be compared with guideline values for protection of human health and the environment as well as waste disposal criteria (as applicable).

Sections of the precinct mapped as Assessment Level A (as presented in Figure 2 of Appendix A) may require an environmental audit. Alternativity, these sections could be utilised for land uses of lower sensitivities, such as open space, agriculture, retail/office of industry/warehouse. This would negate the requirement for an environmental audit and lower the triggered assessment to Level B, as described above.

In addition, hazardous materials surveys should be carried out for structures identified for demolition or relocation. The surveys should address asbestos, lead-based paint, polychlorinated biphenyls in electrical fixtures, and hazardous materials storage. Should asbestos bearing materials be encountered during future investigations or construction, the testing, inspection and removal of asbestos materials are required by law to be undertaken by a suitably qualified and licensed asbestos specialist/removalist.

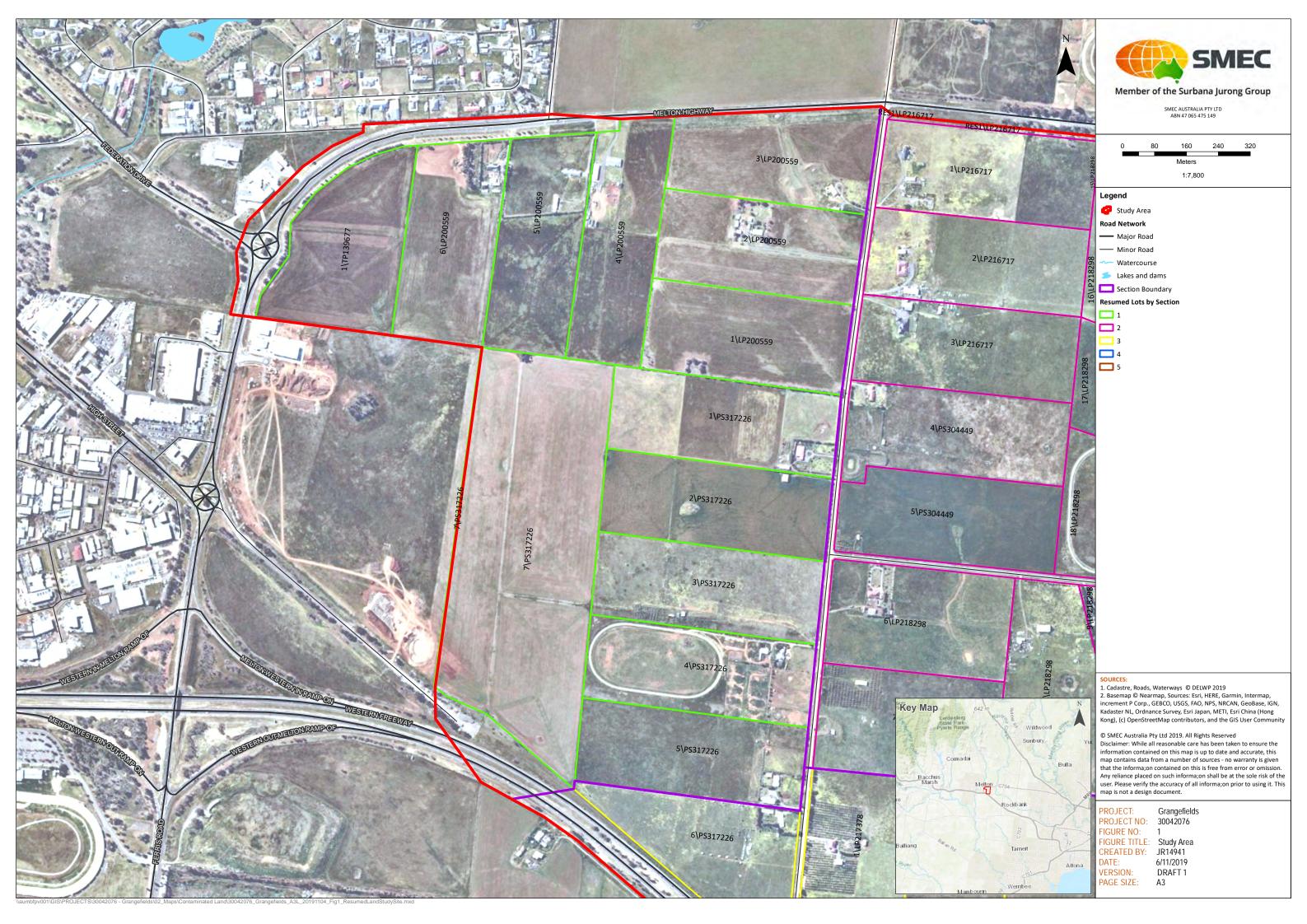
Flood modelling should be undertaken to determine hydrologic effects that any new developments will have on the existing creek system, in particular existing culvert and bridge flow capacities and identified groundwater and inflow-dependent ecosystems within or in close proximity to the Precinct.

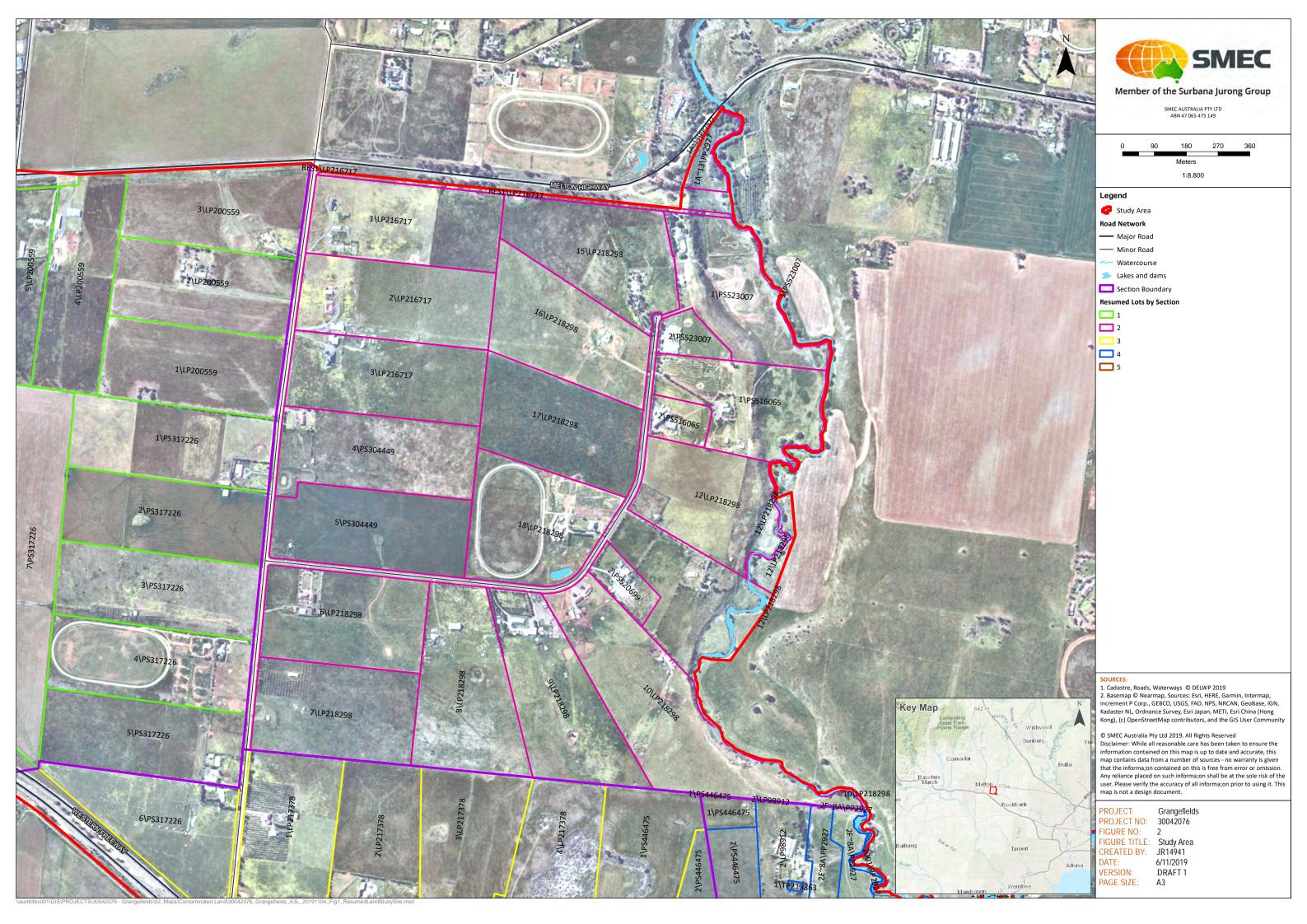
Waterways, including Kororoit Creek and un-named tributaries within in or proximity to the Precinct and associated low-lying areas will require feature surveys to provide detail of drainage patterns and inform planning for urban drainage systems. Drainage paths will need to be either maintained or diverted to ensure all areas are well drained during and after any development. Provision should be made in the precinct structure planning for protection of native vegetation along waterways, including Kororoit Creek with appropriate buffering from residential and other urban uses which could be achieved in conjunction with linear parks such as have been established for other developed areas along Kororoit Creek and tributaries.

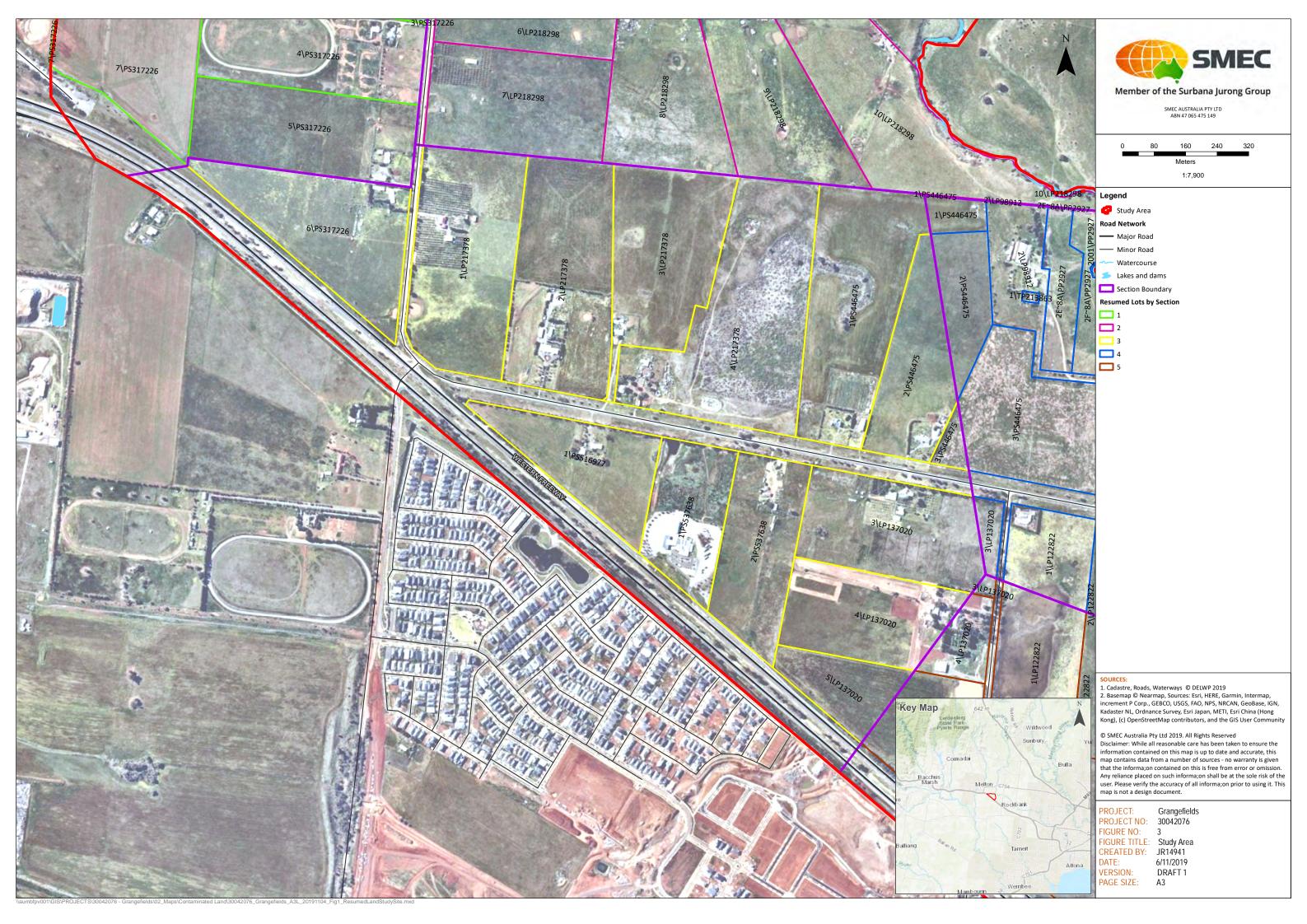
6 References

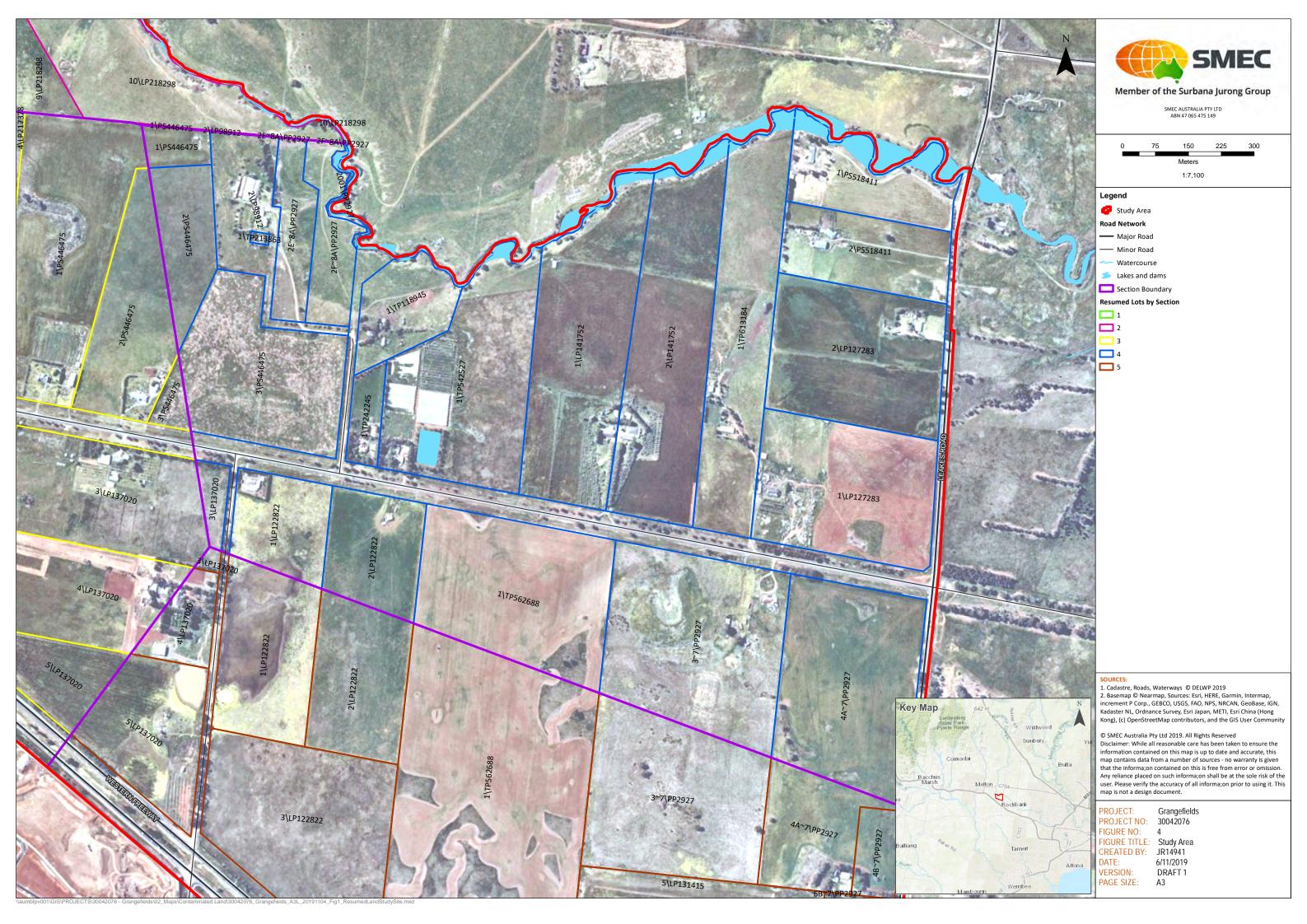
- National Environment Protection (Assessment of Site Contamination) Measure 1999 (amended 2013) (NEPM, 2013);
- NEPM Schedule B2 Site Characterisation;
- Ministerial Direction No. 1 Potentially Contaminated Land (Direction No. 1);
- Ministerial Direction No. 19 Information requirements for amendments that may result in impacts on the environment, amenity and human health (Direction No. 19);
- Victorian Department of Sustainability and Environment, *Potentially Contaminated Land*, General Practice Note, 2005 (DSE, 2005); and
- State Environmental Protection Policy (SEPP), Prevention and Management of Contamination of Land, 2002 (the Land SEPP).
- Department of Sustainability and Environment (DSE), General Practice Note *Potentially Contaminated Land*, June 2005 (DSE, 2005)
- LotSearch Pty Ltd, Environmental Professional Reports (including full dataset listings):
 - Melton East Psp Grangefields, Melbourne, VIC 3337 (Part 1) doc. ref.: LS009279 EP, 31 October 2019
 - Melton East Psp Grangefields, Melbourne, VIC 3337 (Part 2) doc. ref.: LS009280 EP, 31 October 2019
 - Melton East Psp Grangefields, Melbourne, VIC 3337 (Part 3) doc. ref.: LS009281 EP, 31 October 2019
 - Melton East Psp Grangefields, Melbourne, VIC 3337 (Part 4) doc. ref.: LS009282 EP, 31 October 2019
 - Melton East Psp Grangefields, Melbourne, VIC 3337 (Part 5) doc. ref.: LS009283 EP, 31 October 2019
- Ministerial Direction No. 1, Potentially Contaminated Land, 2001

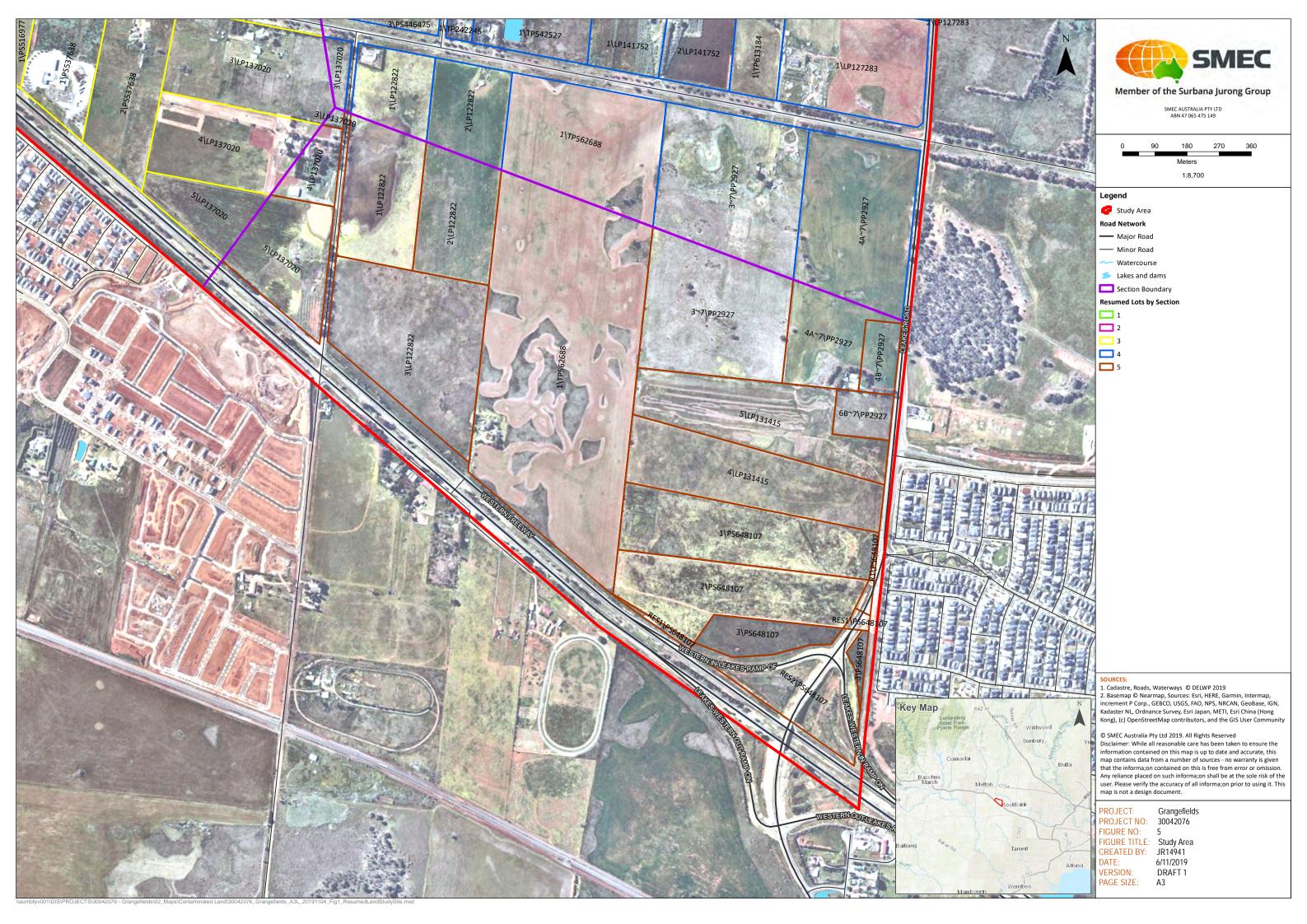
Appendix A Figures

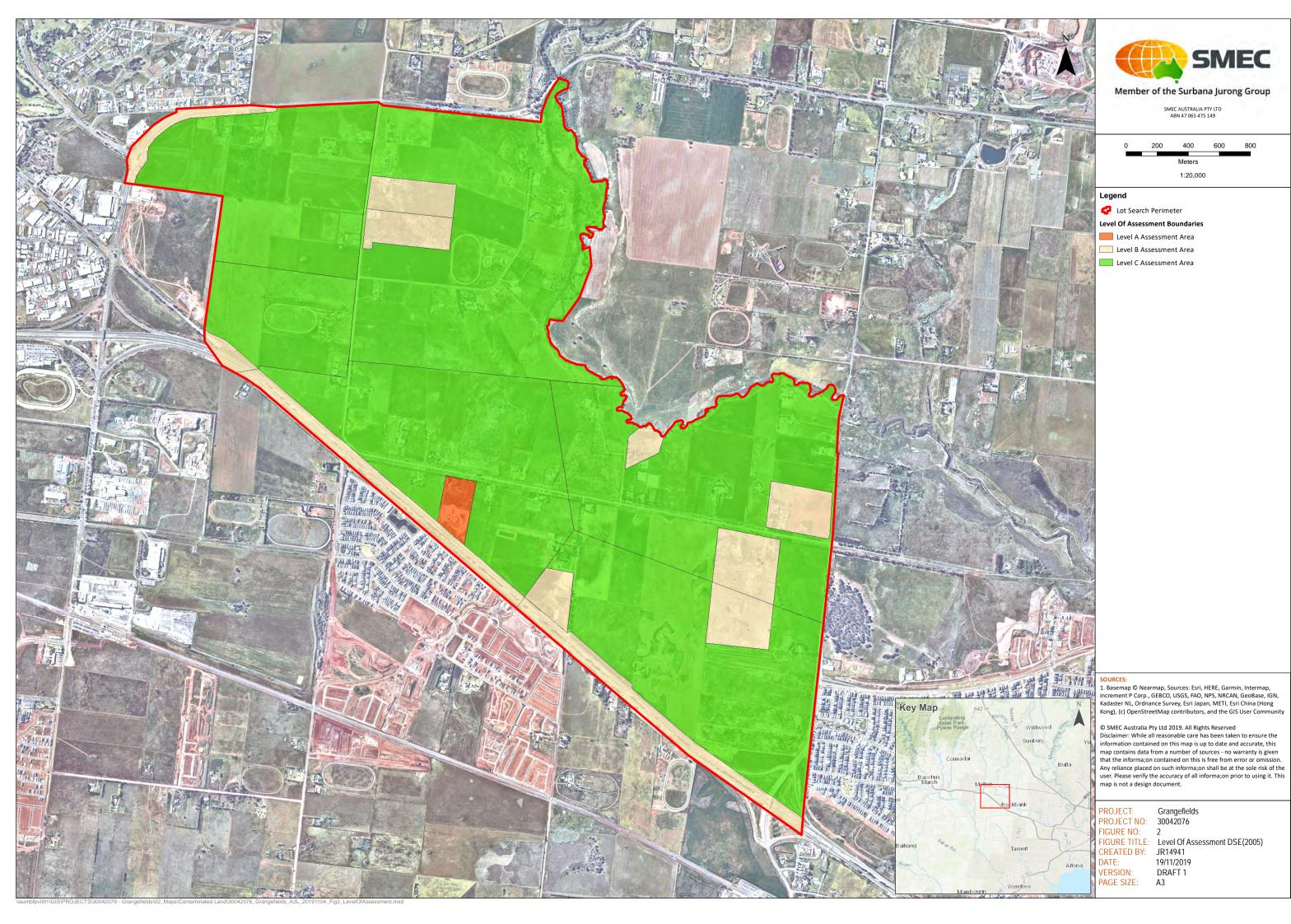












Appendix B Database Search Reports



Address: Melton East Psp - Grangefields, Melbourne, VIC 3337 (Part 1)

Date: 31 Oct 2019 11:41:50 Reference: LS009279 EP

Disclaimer:

The purpose of this report is to provide an overview of some of the site history, environmental risk and planning information available, affecting an individual address or geographical area in which the property is located. It is not a substitute for an on-site inspection or review of other available reports and records. It is not intended to be, and should not be taken to be, a rating or assessment of the desirability or market value of the property or its features. You should obtain independent advice before you make any decision based on the information within the report. The detailed terms applicable to use of this report are set out at the end of this report.

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Location Confidences

Where Lotsearch has had to georeference features from supplied addresses, a location confidence has been assigned to the data record. This indicates a confidence to the positional accuracy of the feature. Where applicable, a confidence is given under the field heading "LocConf" or "Location Confidence".

Location Confidence	Description
Premise Match	Georeferenced to the site location / premise or part of site
Area Match	Georeferenced with the confidence of the general/approximate area
Road Match	Georeferenced to the road or rail
Road Intersection	Georeferenced to the road intersection
Buffered Point	Feature is a buffered point
Network of Features	Georeferenced to a network of features

Dataset Listing

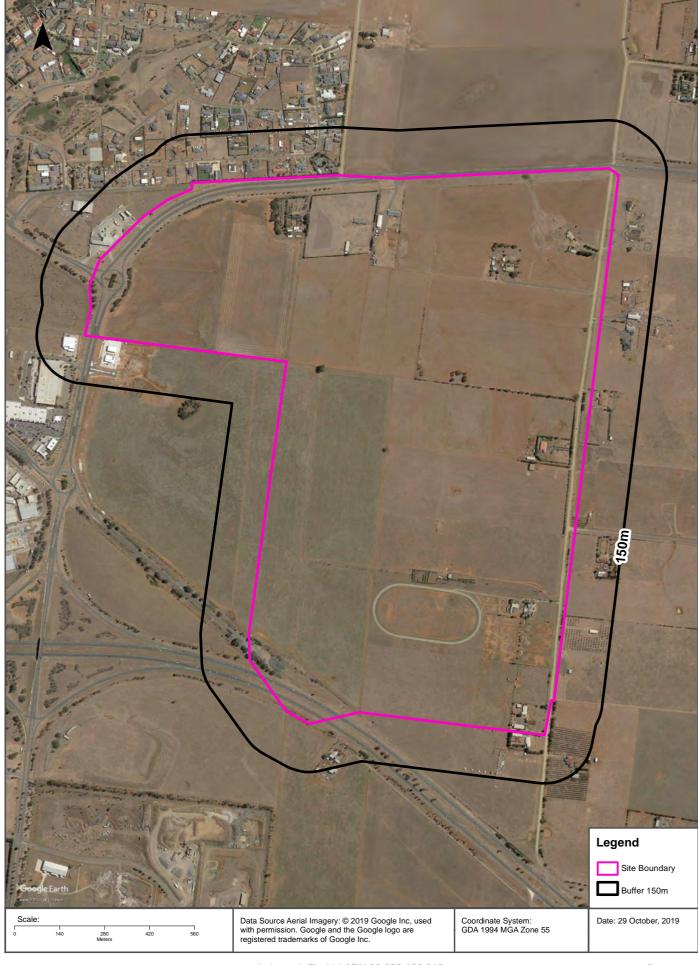
Datasets contained within this report, detailing their source and data currency:

Dataset Name	Custodian	Supply Date	Currency Date	Update Frequency	Dataset Buffer (m)	No. Features Onsite	No. Features within 100m	No. Features in Buffer
Topographic and Cadastre data	State Government Victoria - Department of Environment, Land, Water & Planning	14/10/2019	14/10/2019	Monthly	-	-	-	-
Current EPA Priority Sites	Environment Protection Authority (Vic)	09/10/2019	31/08/2019	Monthly	1000	0	0	1
Former EPA Priority Sites & other Remedial Notices	Environment Protection Authority (Vic)	06/08/2019	05/07/2019	Monthly	1000	0	0	1
EPA PFAS Site Investigations	Environment Protection Authority (Vic)	15/10/2019	13/12/2018	Monthly	2000	0	0	0
Defence PFAS Investigation & Management Program	Department of Defence	02/10/2019	02/10/2019	Monthly	2000	0	0	0
Airservices Australia National PFAS Management Program	Airservices Australia	02/10/2019	02/10/2019	Monthly	2000	0	0	0
Defence 3 Year Regional Contamination Investigation Program	Department of Defence	02/10/2019	02/10/2019	Monthly	2000	0	0	0
EPA Environmental Audit Reports	Environment Protection Authority (Vic)	14/10/2019	14/10/2019	Monthly	1000	0	0	0
EPA Groundwater Zones with Restricted Uses	Environment Protection Authority (Vic)	14/10/2019	14/10/2019	Monthly	1000	0	0	0
Current EPA Licensed Activities	Environment Protection Authority (Vic)	16/10/2019	16/10/2019	Monthly	1000	0	0	0
Former EPA Licensed Activities	Environment Protection Authority (Vic)	16/10/2019	16/10/2019	Monthly	1000	0	0	1
EPA Works Approvals	Environment Protection Authority (Vic)	16/10/2019	16/10/2019	Monthly	1000	0	0	0
National Waste Management Facilities Database	Geoscience Australia	06/08/2019	07/03/2017	Quarterly	1000	0	0	1
Statewide Waste and Resource Recovery Infrastructure Plan Facilities	State Government Victoria - Department of Sustainability	27/11/2014	31/12/2012	None planned	1000	0	0	1
EPA Prescribed Industrial Waste	Environment Protection Authority (Vic)	31/07/2019	31/07/2019	Quarterly	1000	0	0	6
EPA Victorian Landfill Register	Environment Protection Authority (Vic)	01/10/2019	01/10/2019	Quarterly	1000	0	0	0
Former Gasworks	Various historical sources collated by Lotsearch	15/08/2017	15/08/2017	Not required	1000	0	0	0
UBD Business Directory 1970 (Premise & Intersection Matches)	Hardie Grant			Not required	150	0	0	0
UBD Business Directory 1970 (Road & Area Matches)	Hardie Grant			Not required	150	-	20	20
UBD Business Directory 1960-62 (Premise & Intersection Matches)	Hardie Grant			Not required	150	0	0	0
UBD Business Directory 1960-62 (Road & Area Matches)	Hardie Grant			Not required	150	-	15	15
UBD Business Directory 1950 (Premise & Intersection Matches)	Hardie Grant			Not required	150	0	0	0
UBD Business Directory 1950 (Road & Area Matches)	Hardie Grant			Not required	150	-	11	11
Sands & McDougall's Directory 1945 (Premise & Intersection Matches)	Sands & McDougall, State Library Victoria			Not required	150	0	0	0
Sands & McDougall's Directory 1945 (Road & Area Matches)	Sands & McDougall, State Library Victoria			Not required	150	-	0	0
Sands & McDougall's Directory 1925 (Premise & Intersection Matches)	Sands & McDougall, State Library Victoria			Not required	150	0	0	0
Sands & McDougall's Directory 1925 (Road & Area Matches)	Sands & McDougall, State Library Victoria			Not required	150	-	1	1

Dataset Name	Custodian	Supply Date	Currency Date	Update Frequency	Dataset Buffer (m)		No. Features within 100m	No. Features in Buffer
Sands & McDougall's Directory 1905 (Premise & Intersection Matches)	Sands & McDougall, State Library Victoria			Not required	150	0	0	0
Sands & McDougall's Directory 1905 (Road & Area Matches)	Sands & McDougall, State Library Victoria			Not required	150	-	18	18
Historical Business Directory Drycleaners & Motor Garages/Service Stations (Premise & Intersection Matches)	Hardie Grant; Sands & McDougall, State Library Victoria			Not required	500	0	0	0
Historical Business Directory Drycleaners & Motor Garages/Service Stations (Road & Area Matches)	Hardie Grant; Sands & McDougall, State Library Victoria			Not required	500	-	7	7
Features of Interest	State Government Victoria - Department of Environment, Land, Water & Planning	14/10/2019	14/10/2019	Quarterly	1000	4	5	28
Hydrogeology Map of Australia	Commonwealth of Australia (Geoscience Australia)	08/10/2014	17/03/2000	As required	1000	1	1	1
Groundwater Salinity	State Government Victoria - Department of Environment, Land, Water & Planning	14/08/2015	29/08/2012	Unknown	0	1	-	-
Depth to Watertable	State Government Victoria - Department of Environment, Land, Water & Planning	14/08/2015	29/08/2012	Unknown	0	2	-	-
Surface Elevation	State Government Victoria - Department of Environment, Land, Water & Planning	14/08/2015	23/09/2013	Unknown	0	1	-	-
Basement Elevation	State Government Victoria - Department of Environment, Land, Water & Planning	14/08/2015	23/09/2013	Unknown	0	1	-	-
Groundwater Boreholes WMIS	State Government Victoria - Department of Environment, Land, Water & Planning	28/08/2019	01/08/2019	Quarterly	2000	9	16	154
Groundwater Boreholes Earth Resources Database	State Government Victoria - Department of Economic Development, Jobs, Transport and Resources	27/07/2018	17/02/2010	As required	2000	9	12	80
Groundwater Boreholes Fed Uni	Federation University Australia	21/12/2017	07/01/2014	As required	2000	0	0	1
Historical Mining Activity - Shafts	State Government Victoria - Department of Economic Development, Jobs, Transport and Resources	18/10/2018	20/07/2018	As required	1000	0	0	0
Geological Units 1:50,000	State Government Victoria - Department of Economic Development, Jobs, Transport and Resources	13/01/2015	24/06/2014	Unknown	1000	1	-	4
Geological Structures 1:50,000	State Government Victoria - Department of Economic Development, Jobs, Transport and Resources	13/01/2015	24/06/2014	Unknown	1000	0	-	0
Dykes and Marker Beds 50k	State Government Victoria - Department of Economic Development, Jobs, Transport and Resources	13/01/2015	24/06/2014	Unknown	1000	0	-	0
Shear zones 250k	State Government Victoria - Department of Economic Development, Jobs, Transport and Resources	13/01/2015	24/06/2014	Unknown	1000	0	-	0
Atlas of Australian Soils	ABARES	19/05/2017	17/02/2011	As required	1000	1	1	1
Victorian Soil Type Mapping	State Government Victoria - Department of Economic Development, Jobs, Transport and Resources	24/08/2017	21/03/2016	Unknown	1000	2	3	4
Atlas of Australian Acid Sulfate Soils	CSIRO	19/01/2017	21/02/2013	As required	1000	1	1	1
Coastal Acid Sulfate Soils	State Government Victoria - Department of Economic Development, Jobs, Transport and Resources	28/03/2017	30/03/2011	None planned	1000	0	0	0
Planning Scheme Zones	State Government Victoria - Department of Environment, Land, Water & Planning	14/10/2019	09/10/2019	Monthly	1000	2	6	18
Planning Scheme Overlay	State Government Victoria - Department of Environment, Land, Water & Planning	14/10/2019	09/10/2019	Monthly	1000	1	2	8
Commonwealth Heritage List	Australian Government Department of the Environment and Energy - Heritage Branch	16/01/2019	31/07/2018	Unknown	1000	0	0	0
National Heritage List	Australian Government Department of the Environment and Energy - Heritage Branch	16/01/2019	28/09/2018	Unknown	1000	0	0	0
Victorian Heritage Register	State Government Victoria - Department of Environment, Land, Water & Planning	14/10/2019	14/10/2019	Quarterly	1000	0	0	0

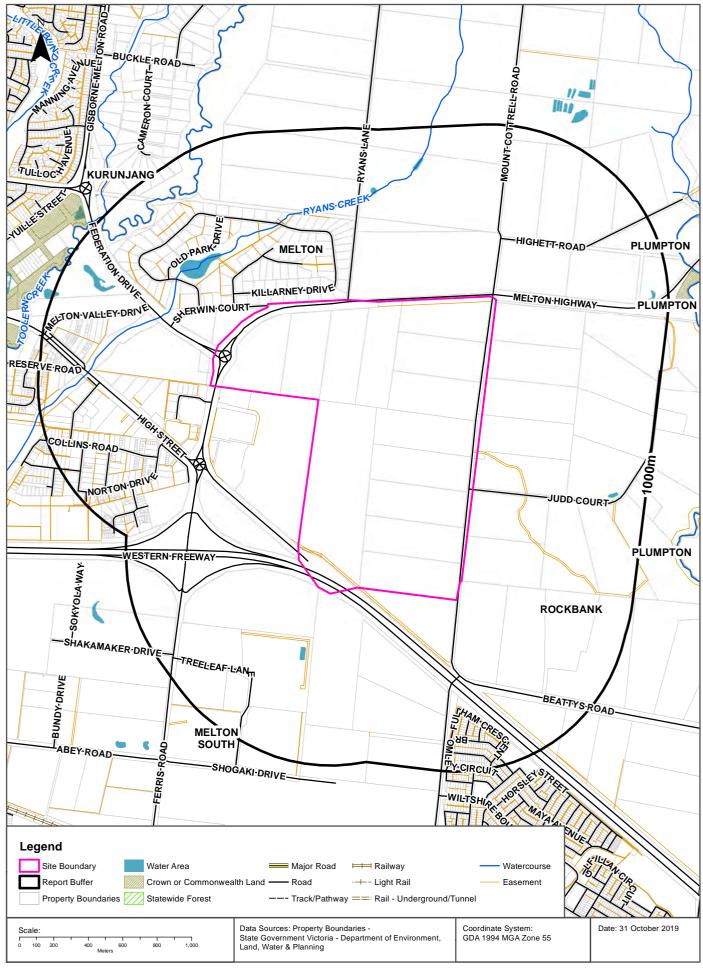
Dataset Name	Custodian	Supply Date	Currency Date	Update Frequency	Dataset Buffer (m)	No. Features Onsite	No. Features within 100m	No. Features in Buffer
Cultural Heritage Sensitivity	State Government Victoria - Department of Premier and Cabinet	14/10/2019	13/10/2019	Quarterly	1000	0	1	6
Bushfire Prone Area	State Government Victoria - Department of Transport, Planning and Local Infrastructure	19/09/2019	10/09/2019	Quarterly	1000	1	1	1
Fire History	State Government Victoria - Department of Environment, Land, Water & Planning	14/10/2019	13/10/2019	Quarterly	1000	1	1	1
Flood - 1 in 100 Year Modelled Flood Extent	State Government Victoria - Department of Environment, Land, Water & Planning	14/10/2019	31/12/2014	Quarterly	1000	0	0	2
Victorian Coastal Inundation Sea Level Rise	State Government Victoria - Department of Environment, Land, Water & Planning	10/04/2018	24/10/2017	Unknown	1000	0	0	0
Native Vegetation (Modelled 2005 Ecological Vegetation Classes)	State Government Victoria - Department of Environment, Land, Water & Planning	13/01/2015	31/12/2005	None planned	1000	1	1	4
Ramsar Wetland Areas in Victoria	State Government Victoria - Department of Environment, Land, Water & Planning	28/03/2017	24/06/2013	None planned	1000	0	0	0
Groundwater Dependent Ecosystems Atlas	Bureau of Meteorology	14/08/2017	15/05/2017	Unknown	1000	0	0	4
Inflow Dependent Ecosystems Likelihood	Bureau of Meteorology	14/08/2017	15/05/2017	Unknown	1000	0	0	7





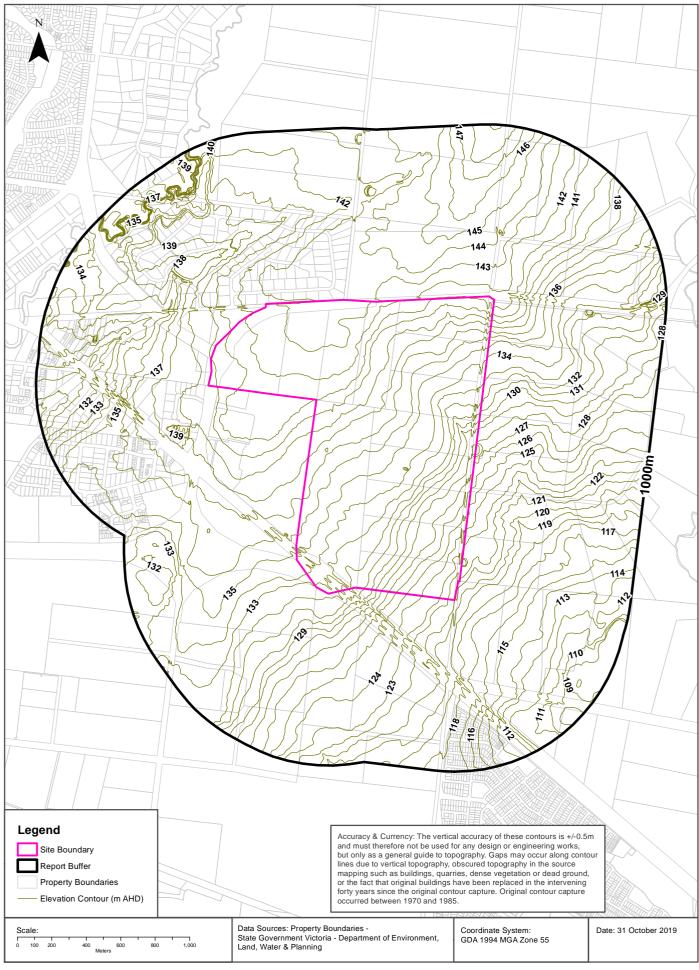
Topographic Data





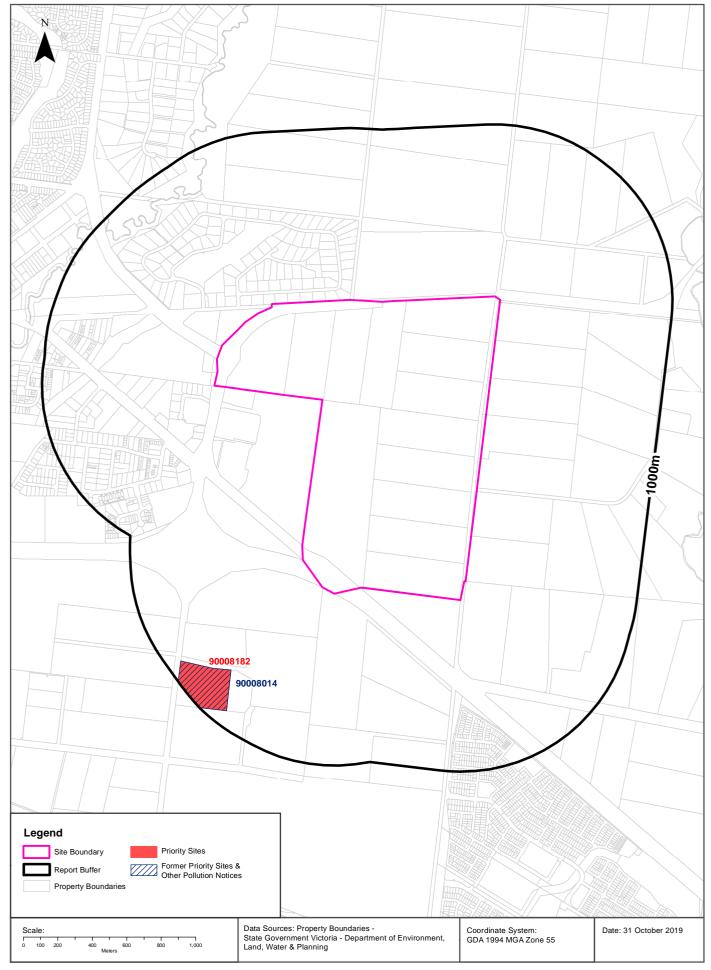
Elevation Contours (m AHD)





EPA Records - Priority Sites & Pollution Notices





EPA Records

Melton East Psp - Grangefields, Melbourne, VIC 3337 (Part 1)

Current EPA Priority Sites Register

Sites on the current EPA priority sites register that exist within the dataset buffer:

Notice No	Address	Suburb	Issue	Loc Conf	Dist (m)	Direction
90008182	43 - 67 FERRIS RD	COBBLEBANK	Industrial waste has been dumped at the site. Requires assessment and/or clean up.	Premise Match	715m	South West

Priority Sites Data Custodian: State Government Victoria - Environment Protection Authority (EPA)

Former EPA Priority Sites & Other Pollution Notices

Sites within the dataset buffer that have been issued a Pollution Notice:

Note. Due to pollution notices being revoked and removed from published lists this is not an exhaustive list of all past pollution notices.

Notice No	Notice Type	Company	Address	Suburb	Status	Issue	Date Issued	Loc Conf	Dist	Dir
90008014	Previous Priority Notice		43 FERRIS ROAD	COBBLEBANK	Previous Priority Notice	Industrial waste has been dumped at the site. Requires assessment and/or clean up.		Premise Match	715m	South West

Pollution Notice Data Custodian: State Government Victoria - Environment Protection Authority (EPA)

PFAS Investigation Sites

Melton East Psp - Grangefields, Melbourne, VIC 3337 (Part 1)

EPA PFAS Site Investigations

Sites being investigated by the EPA for PFAS contamination within the dataset buffer:

Map ID	Site Name	Address	Loc Conf	Dist	Dir
N/A	No records in buffer				

EPA PFAS Site Investigations Data Custodian: State Government Victoria - Environment Protection Authority (EPA)

Defence PFAS Investigation & Management Program

Sites being investigated or managed by the Department of Defence for PFAS contamination within the dataset buffer:

Map ID	Base Name	Address	Loc Conf	Dist	Dir
N/A	No records in buffer				

Defence PFAS Investigation & Management Program Data Custodian: Department of Defence, Australian Government

Airservices Australia National PFAS Management Program

Sites being investigated or managed by Airservices Australia for PFAS contamination within the dataset buffer:

Мар) ID	Site Name	Impacts	Loc Conf	Dist	Dir
N/A		No records in buffer				

Airservices Australia National PFAS Management Program Data Custodian: Airservices Australia

Defence Sites

Melton East Psp - Grangefields, Melbourne, VIC 3337 (Part 1)

Defence 3 Year Regional Contamination Investigation Program

Sites which have been assessed as part of the Defence 3 Year Regional Contamination Investigation Program within the dataset buffer:

Property I	D Base Name	Address	Known Contamination	Loc Conf	Dist	Dir
N/A	No records in buffer					

Defence 3 Year Regional Contamination Investigation Program, Data Custodian: Department of Defence, Australian Government

EPA Records

Melton East Psp - Grangefields, Melbourne, VIC 3337 (Part 1)

EPA Environmental Audits

EPA environmental audit records that exist within the dataset buffer: Note. Please click on CARMS No. to activate a hyperlink to online documentation. If link does not work, documentation may still be accessible via the EPA Interaction Portal.

CARMS No	Transaction No	Site	Address	Suburb	Date Complete	Audit Category	Loc Conf	Distance	Direction
N/A	No records in buffer								

Environmental Audit Data Custodian: State Government Victoria - Environment Protection Authority (EPA)

EPA Records

Melton East Psp - Grangefields, Melbourne, VIC 3337 (Part 1)

EPA Groundwater Zones with Restricted Uses

EPA GQRUZ records that exist within the dataset buffer:

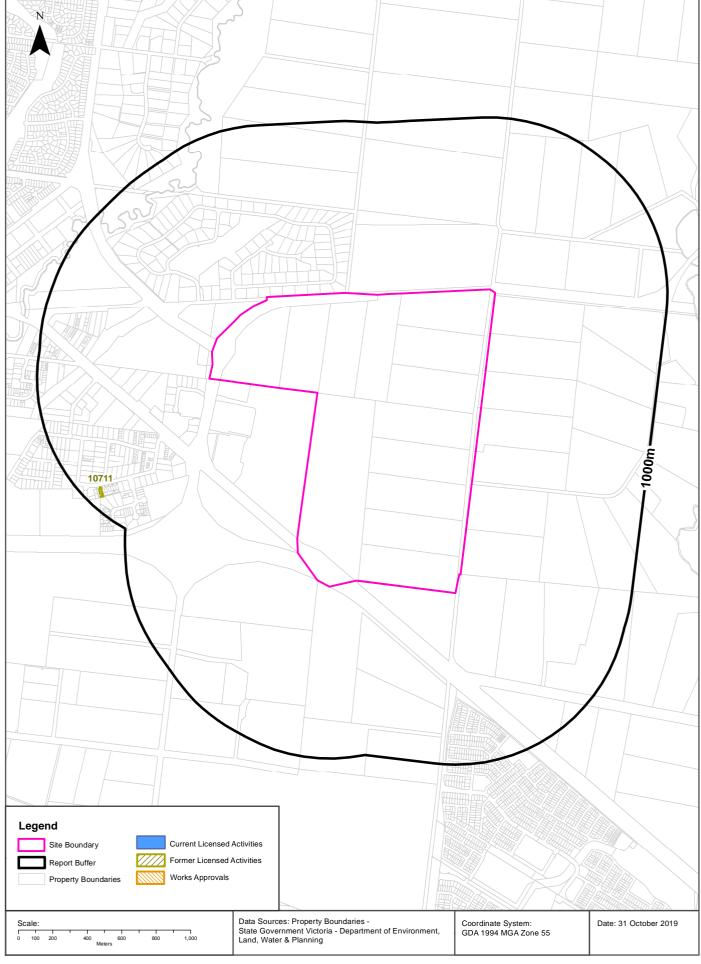
Note. Please click on CARMS No. to activate a hyperlink to online documentation.

CARMS No	EPA Id	Site History	Site Address	Restricted Uses	Status	Loc Conf	Distance	Direction
N/A	No records in buffer							

Environmental GQRUZ Data Custodian: State Government Victoria - Environment Protection Authority (EPA)

EPA Records - Licensed Activities & Works Approvals





EPA Records

Melton East Psp - Grangefields, Melbourne, VIC 3337 (Part 1)

EPA Licensed Activities

EPA licensed activities that exist within the dataset buffer:

Trans No	Licence No	Licence Type	Organisation	Premise Ref	Premise Address 1	Premise Address 2	Activities	Loc Conf	Dist (m)	Direction
N/A	No records in buffer									

Licensed Activity Data Custodian: State Government Victoria - Environment Protection Authority (EPA)

Former EPA Licensed Activities

Former EPA licensed activities that exist within the dataset buffer:

Licence No	Organisation	Premise Address	Suburb	Activities	Loc Conf	Dist (m)	Direction
10711	COOPER BROS HOLDINGS PTY LTD [MELTON]	3 27-29 NORTON DR	MELTON VIC 3337	A01 Prescribed Industrial Waste Management	Premise Match	891m	West

Former Licensed Activity Data Custodian: State Government Victoria - Environmental Protection Authority (EPA)

EPA Works Approvals

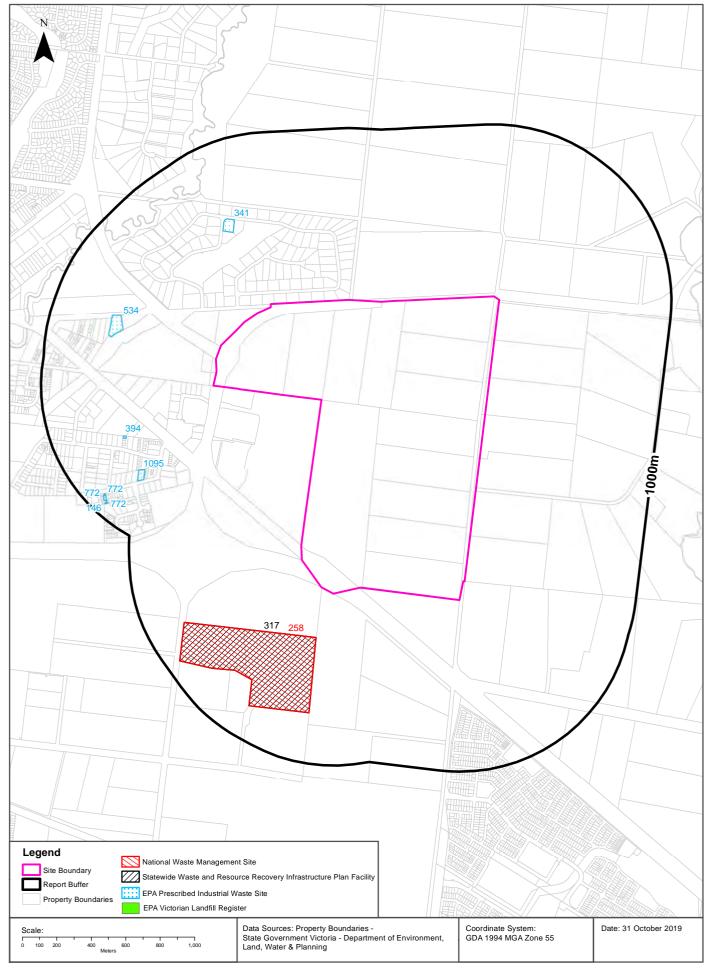
EPA works approvals that exist within the dataset buffer:

Transaction No	Status	Approval No	Organisation	Premise Address	Suburb	Scheduled Categories	Loc Conf	Dist (m)	Direction
N/A	No records in buffer								

Works Approvals Data Custodian: State Government Victoria - Environment Protection Authority (EPA)

Waste Management Facilities & Landfills





Waste Management Facilities & Landfills

Melton East Psp - Grangefields, Melbourne, VIC 3337 (Part 1)

National Waste Management Site Database

Sites on the National Waste Management Site Database within the dataset buffer:

Site Id	Owner	Name	Address	Suburb	Class	Landfill	Reprocess	Transfer	Comments	Loc Conf	Dist (m)	Direction
258	Melton Shire Council	Melton Recycling Centre	54 Ferris Road	Melton	Multi- Purpose	Operation al	Operational		Original information on waste managemen t site collected by DEWHA in 2009	Premise Match	274m	South West

Waste Management Facilities Data Source: Australian Government Geoscience Australia Creative Commons 3.0 © Commonwealth of Australia http://creativecommons.org/licenses/by/3.0/au/deed.en

Statewide Waste and Resource Recovery Infrastructure Plan Facilities

Statewide Waste and Resource Recovery Infrastructure Plan Facilities within the dataset buffer:

Map Id	Owner	Site Name	Address	Suburb	Category	Sub Category	Loc Conf	Distance	Direction
317	Melton City Council	Melton Recycling Centre	Ferris Rd	Melton	Municipal Waste	MSW Transfer station	Premise Match	274m	South West

SWRRIPF Data Source: State Government Victoria - Department of Sustainability

EPA Prescribed Industrial Waste

EPA Prescribed Industrial Waste treaters, disposers and permitted transporters within the dataset buffer:

Map Id	Company Name	Address	Suburb	Treatment /Disposal	Transport	Accredited Agent	EPA List Status	Loc Conf	Dist' (m)	Direct
341	KECA, DUSKO	4 OLD PARK DR	MELTON VIC 3337	No	Yes	No	Previous EPA List	Premise Match	473m	North West
534	SHARP, STEVEN JOHN	13 MELTON VALLEY DR	MELTON VIC 3337	No	Yes	No	Previous EPA List	Premise Match	565m	West
394	MARCUS RIDGE HOLDINGS PTY LTD [MELTON]	UNIT 4 10 COLLINS RD	MELTON VIC 3337	No	Yes	No	Current EPA List	Premise Match	585m	West
1095	NOTMAN, BRUCE	Unit 1, 12 NORTON DRIVE	MELTON	No	Yes	No	Previous EPA List	Premise Match	630m	West
772	TRIPLE R TRANSPORT PTY LTD [MELTON]	3, 27-29 NORTON DR	MELTON VIC 3337	No	Yes	Yes	Previous EPA List	Premise Match	891m	West
146	COOPER BROS HOLDINGS PTY LTD [MELTON]	3, 27-29 NORTON DR	MELTON VIC 3337	Yes	No	No	Previous EPA List	Premise Match	891m	West

Prescribed Industrial Waste Data Source: State Government Victoria - Environment Protection Authority (EPA)

EPA Victorian Landfill Register

EPA Victorian Landfill Register sites within the dataset buffer:

Landfill Register No.	Site	Address	Operating Status	Est. Year Of Closure	Waste type	Loc Conf	Dist' (m)	Direction
No records in buffer								

EPA Victorian Landfill Register Data Source: State Government Victoria - Environment Protection Authority (EPA)

Former Gasworks

Melton East Psp - Grangefields, Melbourne, VIC 3337 (Part 1)

Former Gasworks

Former Gasworks identified from various historical sources within the dataset buffer: Note - As this is a dataset collated from various historical sources, it is not an exhaustive list of all former Gasworks

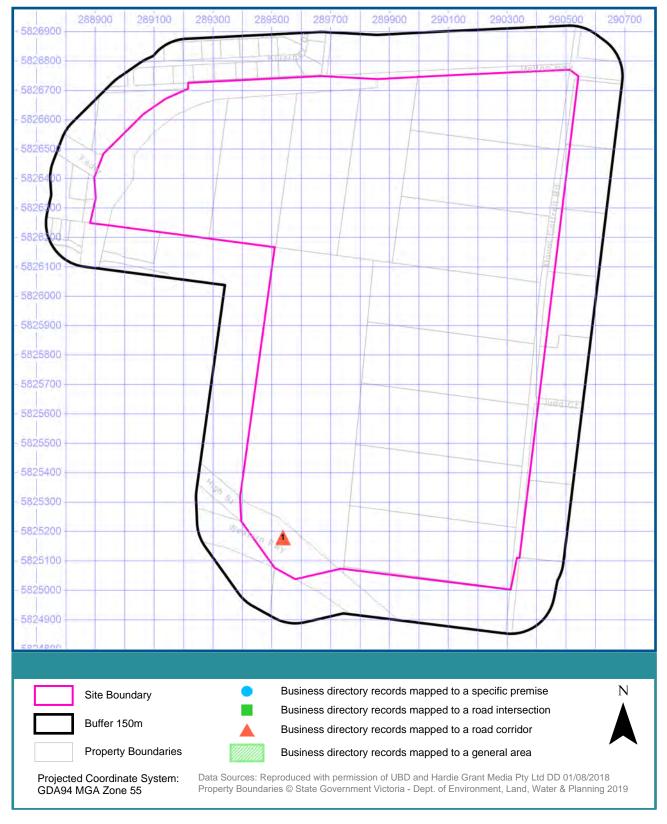
Map Id	Site Name	Date Opened	Year Closed	Location Confidence	Distance	Direction
N/A	No records in buffer					

Former Gasworks Data Source: Collated from various historical sources

Melton East Psp - Grangefields, Melbourne, VIC 3337 (Part 1)



1970 Business Directory Records



Melton East Psp - Grangefields, Melbourne, VIC 3337 (Part 1)

1970 Business Directory Records Premise or Road Intersection Matches

Records from the 1970 UBD Business Directory, mapped to a premise or road intersection, within the dataset buffer:

Map I	Business Activity	Premise	Ref No.	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
	No records in buffer					

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1970 Business Directory Records Road or Area Matches

Records from the 1970 UBD Business Directory, mapped to a road or an area, within the dataset buffer. Records are mapped to the road when a building number is not supplied, cannot be found, or the road has been renumbered since the directory was published:

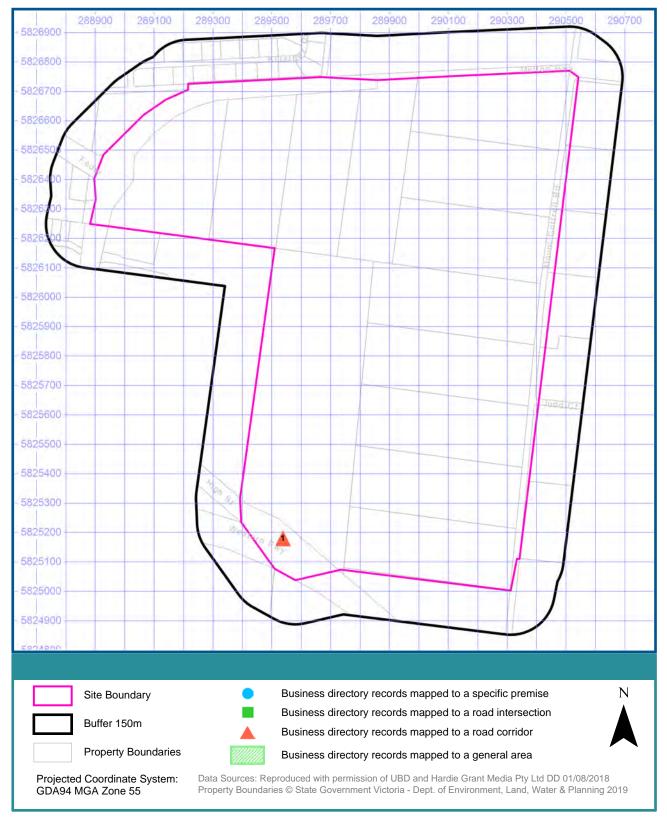
Map Id	Business Activity	Premise	Ref No.	Location Confidence	Distance to Road Corridor or Area
1	REAL ESTATE AGENTS	Andrews. L & Co., High St Melton & Melton South	12392	Road Match	0m
	NEWSAGENTS	Arnold. G. E & J. M.,23 High St Melton & Melton South	12390	Road Match	0m
	JUSTICES OF THE PEACE	Arnold. G. E., High St Melton & Melton South	12380	Road Match	0m
	BUTCHERS	Backhouse Bros., High St Melton & Melton South	12351	Road Match	0m
	REAL ESTATE AGENTS	Delphic Realty Pty. Ltd. (R.E.A.A.).,High St Melton & Melton South	12393	Road Match	0m
	CHILDREN'S WEAR	Joanelle Wear., High St Melton & Melton South	12358	Road Match	0m
	DRAPERS	Joanelle Wear., High St Melton & Melton South	12365	Road Match	0m
	FROCK & COAT SALONS	Joanelle Wear., High St Melton & Melton South	12366	Road Match	0m
	GROCERS & GENERAL STOREKEEPERS .	Jongebloed. E. R., High St Melton & Melton South	12371	Road Match	0m
	REAL ESTATE AGENTS	Kontex John & Son.,42 High St Melton & Melton South	12394	Road Match	0m
	HAIRDRESSERS (LADIES') AND BEAUTY SALONS	Mandy Lee., High St Melton & Melton South	12373	Road Match	0m
	REAL ESTATE AGENTS	Mcdonald. W.(R.E.A.A.).,High St Melton & Melton South	12395	Road Match	0m
	MOTOR GARAGES & SERVICE STATIONS	Melton Auto Port., Ballarat Rd Melton & Melton South	12387	Road Match	0m
	HARDWARE MERCHANTS	Melton Hardware Supplies., High St Melton & Melton South	12377	Road Match	0m
	CHAFF & GRAIN MILLS	Melton Pharmacy.,88 High St Melton & Melton South	12357	Road Match	0m
	REAL ESTATE AGENTS	Melton Real Estate Pty. Ltd., High St Melton & Melton South	12396	Road Match	0m

Map Id	Business Activity	Premise	Ref No.	Location Confidence	Distance to Road Corridor or Area
1	CAFES	Miller. T. J., High St Melton & Melton South	12352	Road Match	0m
	JUSTICES OF THE PEACE	Pearcey. J. E., High St Melton & Melton South	12382	Road Match	0m
	CONFECTIONERS & FRUITERERS	Radford. E. & V. G., High St Melton & Melton South	12363	Road Match	0m
	MOTOR GARAGES & SERVICE STATIONS	Young's Motors (Melton).,High St Melton & Melton South	12388	Road Match	0m

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Melton East Psp - Grangefields, Melbourne, VIC 3337 (Part 1)

1960-62 Business Directory Records



Melton East Psp - Grangefields, Melbourne, VIC 3337 (Part 1)

1960-62 Business Directory Records Premise or Road Intersection Matches

Records from the 1960-62 UBD Business Directory, mapped to a premise or road intersection, within the dataset buffer:

Map Id	Business Activity	Premise	Ref No.	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
	No records in buffer					

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1960-62 Business Directory Records Road or Area Matches

Records from the 1960-62 UBD Business Directory, mapped to a road or an area, within the dataset buffer. Records are mapped to the road when a building number is not supplied, cannot be found, or the road has been renumbered since the directory was published:

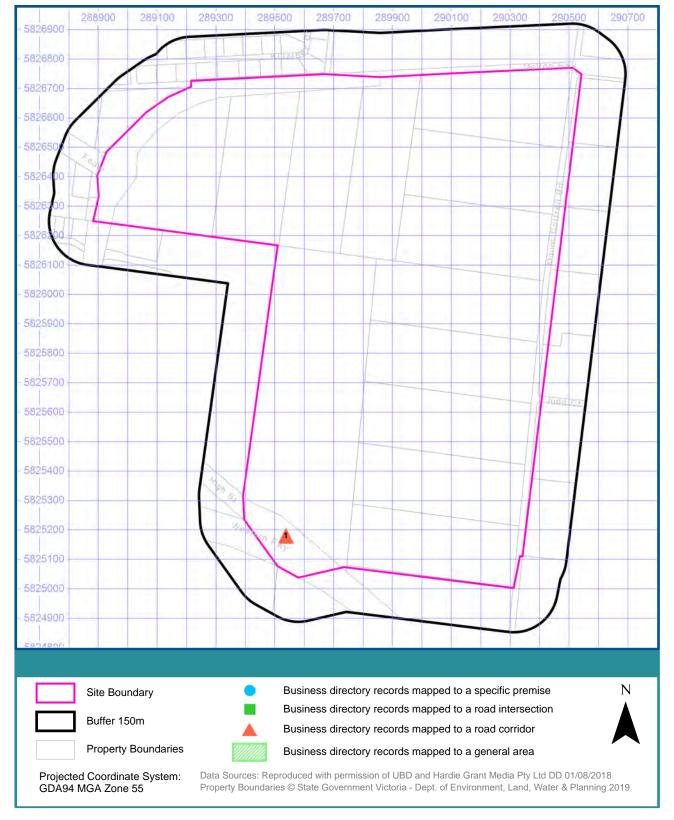
Map Id	Business Activity	Premise	Ref No.	Location Confidence	Distance to Road Corridor or Area
1	BUTCHERS	Abraham, R. G., High St., Melton & Melton South.	157437	Road Match	0m
	GROCERS & GENERAL STOREKEEPERS	Bardsley, R., High St., Melton & Melton South.	157460	Road Match	0m
	NEWSAGENTS	Bardsley, R., High St., Melton & Melton South.	157479	Road Match	0m
	MOTOR GARAGES & SERVICE STATIONS	Dalgleish Motors, High St., Melton & Melton South.	157475	Road Match	0m
	CAFES & TEA ROOMS	Frawley, Mrs. S. E., High St., Melton & Melton South.	157439	Road Match	0m
	CONFECTIONERS & FRUITERERS	Fuller, W. & A., High St., Melton & Melton South.	157451	Road Match	0m
	BAKERS	Jongebloed, E. R., High St., Melton & Melton South.	157432	Road Match	0m
	GROCERS & GENERAL STOREKEEPERS	Jongebloed, E. R., High St., Melton & Melton South.	157461	Road Match	0m
	CAFES & TEA ROOMS	Masterson, A. I., High St., Melton & Melton South.	157440	Road Match	0m
	CONFECTIONERS & FRUITERERS	Masterson, High St., Melton & Melton South.	157452	Road Match	0m
	MOTOR GARAGES & SERVICE STATIONS	Melton Auto Port, Ballarat Rd., Melton & Melton South.	157476	Road Match	0m
	FROCK MANUFACTURERS	Melva Gowns, High St., Melton & Melton South.	157456	Road Match	0m
	JUSTICES OF THE PEACE	Pearcey, J. E., High St., Melton & Melton South.	157471	Road Match	0m
	CONFECTIONERS & FRUITERERS	Radford, E. & V. G., High St., Melton & Melton South.	157453	Road Match	0m
	MOTOR GARAGES & SERVICE STATIONS	Young's Motors, High St., Melton & Melton South.	157477	Road Match	0m

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Melton East Psp - Grangefields, Melbourne, VIC 3337 (Part 1)



1950 Business Directory Records



Melton East Psp - Grangefields, Melbourne, VIC 3337 (Part 1)

1950 Business Directory Records Premise or Road Intersection Matches

Records from the 1950 UBD Business Directory, mapped to a premise or road intersection, within the dataset buffer:

Map Id	Business Activity	Premise	Ref No.	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
	No records in buffer					

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1950 Business Directory Records Road or Area Matches

Records from the 1950 UBD Business Directory, mapped to a road or an area, within the dataset buffer. Records are mapped to the road when a building number is not supplied, cannot be found, or the road has been renumbered since the directory was published:

Map Id	Business Activity	Premise	Ref No.	Location Confidence	Distance to Road Corridor or Area
1	BUTCHERS	Abraham. H, G., High St. Melton & Melton South	116575	Road Match	0m
	GROCERS & GENERAL STOREKEEPERS	Bardsley, R., High St. Melton & Melton South	116601	Road Match	0m
	NEWSAGENTS	Bardsley. R., High St. Melton & Melton South	116616	Road Match	0m
	BAKERS	Jongebloed. E, R., High St. Melton & Melton South	116570	Road Match	0m
	GROCERS & GENERAL STOREKEEPERS	Jongebloed. E, R., High St. Melton & Melton South	116602	Road Match	0m
	CONFECTIONERS & FRUITERERS	Masterson (Confectioner only)., High St. Melton & Melton South	116592	Road Match	0m
	CAFES & TEAROOMS	Masterson. A. I, (also Boarding House)., High St. Melton & Melton South	116577	Road Match	0m
	MOTOR GARAGES & SERVICE STATIONS	Melton Motors., Ballarat Rd. Melton & Melton South	116612	Road Match	0m
	DRESS, FROCK & GOWN MANUFACTURERS	Melval Gowns (W. G. Swingler, Propr.)., High St. Melton & Melton South	116594	Road Match	0m
	CONFECTIONERS & FRUITERERS	Radford., High St. Melton & Melton South	116593	Road Match	0m
	MOTOR GARAGES & SERVICE STATIONS	Woodgate Motors., High St. Melton & Melton South	116613	Road Match	0m

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Melton East Psp - Grangefields, Melbourne, VIC 3337 (Part 1)

1945 Business Directory Records Premise or Road Intersection Matches

Records from the 1945 Sands & McDougall's Directory, mapped to a premise or road intersection, within the dataset buffer:

Map Id	Business Activity	Premise	Ref No.	Distance to Property Boundary or Road Intersection	Direction
	No records in buffer				

Business Directory Content derived from Sands & McDougall's Directory of Victoria and Canberra ACT - Digitised by State Library Victoria

1945 Business Directory Records Road or Area Matches

Records from the 1945 Sands & McDougall's Directory, mapped to a road or an area, within the dataset buffer. Records are mapped to the road when a building number is not supplied, cannot be found, or the road has been renumbered since the directory was published:

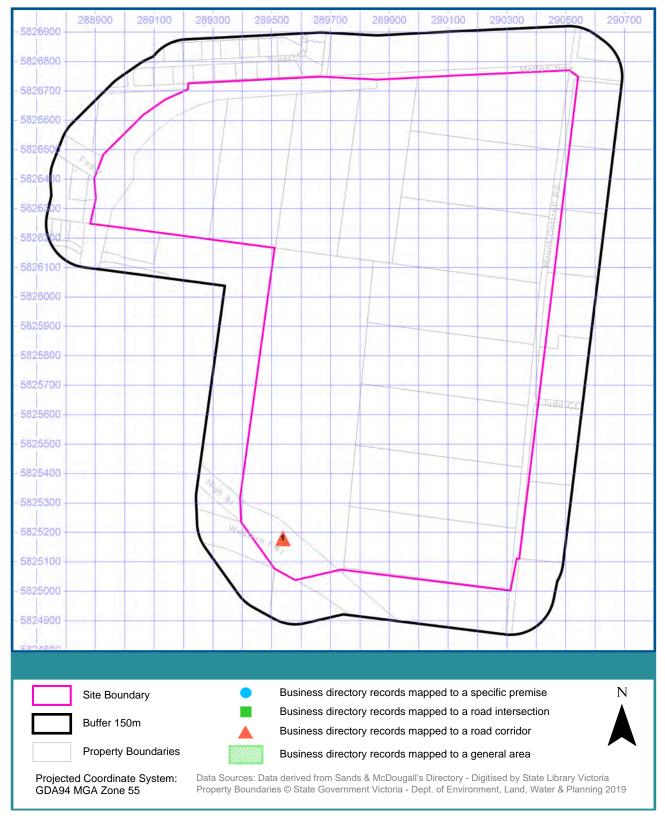
M	ap Id	Business Activity	Premise	Ref No.	Location Confidence	Distance to Road Corridor or Area
		No records in buffer				

Business Directory Content derived from Sands & McDougall's Directory of Victoria and Canberra ACT - Digitised by State Library Victoria

Melton East Psp - Grangefields, Melbourne, VIC 3337 (Part 1)

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1925 Business Directory Records



Melton East Psp - Grangefields, Melbourne, VIC 3337 (Part 1)

1925 Business Directory Records Premise or Road Intersection Matches

Records from the 1925 Sands & McDougall's Directory, mapped to a premise or road intersection, within the dataset buffer:

Map Id	Business Activity	Premise	Ref No.	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
	No records in buffer					

Business Directory Content derived from Sands & McDougall's Directory of Victoria - Digitised by State Library Victoria

1925 Business Directory Records Road or Area Matches

Records from the 1925 Sands & McDougall's Directory, mapped to a road or an area, within the dataset buffer. Records are mapped to the road when a building number is not supplied, cannot be found, or the road has been renumbered since the directory was published:

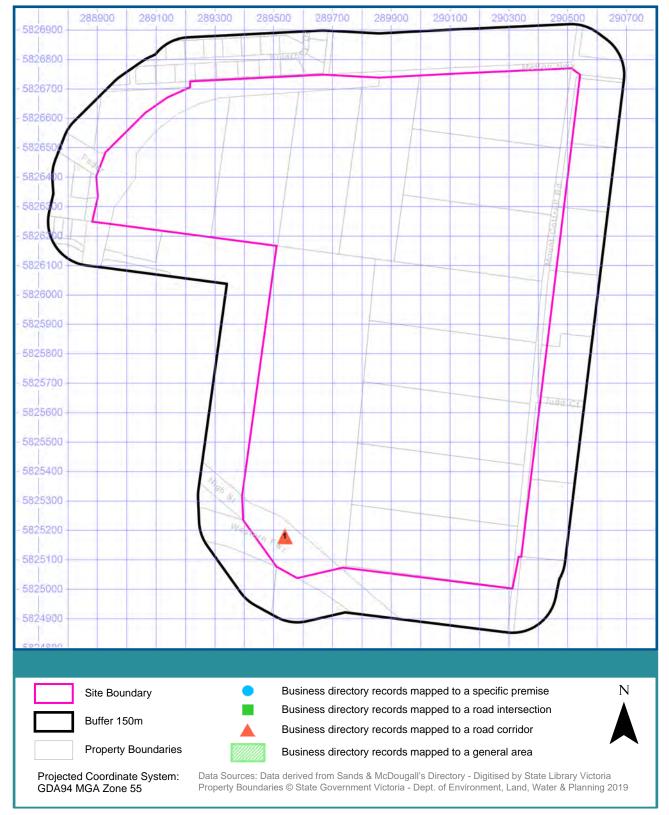
Map Id	Business Activity	Premise	Ref No.	Location Confidence	Distance to Road Corridor or Area
	1 SADDLERS & HARNESS MAKERS	Shelley, Frank, High-st, Melton	358209	Road Match	0m

Business Directory Content derived from Sands & McDougall's Directory of Victoria - Digitised by State Library Victoria

Melton East Psp - Grangefields, Melbourne, VIC 3337 (Part 1)



1905 Business Directory Records



Melton East Psp - Grangefields, Melbourne, VIC 3337 (Part 1)

1905 Business Directory Records Premise or Road Intersection Matches

Records from the 1905 Sands & McDougall's Directory, mapped to a premise or road intersection, within the dataset buffer:

Map Id	Business Activity	Premise	Ref No.	Distance to Property Boundary or Road Intersection	Direction
	No records in buffer				

Business Directory Content derived from Sands & McDougall's Melbourne, Suburban, and Country Directory - Digitised by State Library Victoria

1905 Business Directory Records Road or Area Matches

Records from the 1905 Sands & McDougall's Directory, mapped to a road or an area, within the dataset buffer. Records are mapped to the road when a building number is not supplied, cannot be found, or the road has been renumbered since the directory was published:

Map Id	Business Activity	Premise	Ref No.	Location Confidence	Distance to Road Corridor or Area
1	GROCERS	Atley Bros, High St Melton	172659	Road Match	0m
	BOOTMAKERS AND DEALERS	Baudoin, Fred., High St Melton	167566	Road Match	0m
	BLACKSMITHS , FARRIERS , AND WHEEL- WRIGHTS	Byrnes, Jas., High St Melton	163174	Road Match	0m
	BLACKSMITHS , FARRIERS , AND WHEEL- WRIGHTS	Cameron, Alex., High St Melton	163176	Road Match	0m
	GROCERS	Chalmers Ernest ., High St Melton	172660	Road Match	0m
	BOOTMAKERS AND DEALERS	Cutter. Percival H., High St Melton	167608	Road Match	0m
	DRAPERS AND CLOTHIERS	Geddes. Alexr ., High St Melton	167436	Road Match	0m
	TOBACCONISTS	Hay, Archibald, High St Melton	173223	Road Match	0m
	BAKERS	Jongleblood. G., High St Melton	172268	Road Match	0m
	SADDLERS AND HARNESS MAKERS	Lewis, Joseph, High St Melton	166858	Road Match	0m
	GROCERS	Mcnicoll, Wm., High St Melton	172676	Road Match	0m
	SHIRE HALLS	Melton-Nicklson. J. M, Sec., High St	172746	Road Match	0m
	HOTELS	Minn - Hay, Mr J., High St Melton	172837	Road Match	0m
	HOTELS	RaglanManning W T ., High St Melton	172851	Road Match	0m
	HOTELS	Royal-Graham Mrs R A ., High St Meiton	172859	Road Match	0m

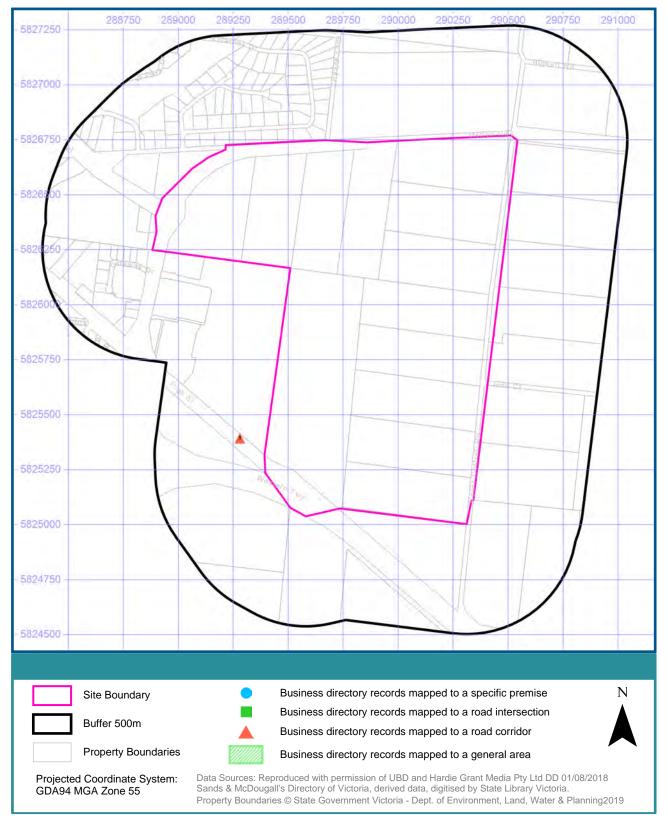
Мар	d Business Activity	Premise	Ref No.	Confidence	Distance to Road Corridor or Area
	1 EDUCATIONAL-TEACHERS OF MUSIC AND SINGING	Scotson, Miss Sarah, High St Melton	172579	Road Match	0m
	BUTCHERS	Simpson Bros, High St Melton	172422	Road Match	0m
	BLACKSMITHS , FARRIERS , AND WHEEL- WRIGHTS	Whittington, Wm., High St Melton	163182	Road Match	0m

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Melton East Psp - Grangefields, Melbourne, VIC 3337 (Part 1)

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Dry Cleaners, Motor Garages & Service Stations



Melton East Psp - Grangefields, Melbourne, VIC 3337 (Part 1)

Dry Cleaners, Motor Garages & Service Stations Premise or Road Intersection Matches

Dry Cleaners, Motor Garages & Service Stations from Sands & McDougall's Directories and UBD Business Directories, mapped to a premise or road intersection within the dataset buffer.

Map Id	Business Activity	Premise	Ref No.	Year	Confidence	Distance to Property Boundary or Road Intersection	Direction
	No records in buffer						

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Melton East Psp - Grangefields, Melbourne, VIC 3337 (Part 1)

Dry Cleaners, Motor Garages & Service Stations Road or Area Matches

Dry Cleaners, Motor Garages & Service Stations from UBD Business Directories and Sands & McDougall's Directories, mapped to a road or an area within the dataset buffer. Records are mapped to the road when a building number is not supplied, cannot be found, or the road has been renumbered since the directory was published.

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Road Corridor or Area
1	MOTOR GARAGES & SERVICE STATIONS	Melton Auto Port., Ballarat Rd Melton & Melton South	12387	1970	Road Match	0m
	MOTOR GARAGES & SERVICE STATIONS	Young's Motors (Melton).,High St Melton & Melton South	12388	1970	Road Match	0m
	MOTOR GARAGES & SERVICE STATIONS	Dalgleish Motors, High St., Melton & Melton South.	157475	1960	Road Match	0m
	MOTOR GARAGES & SERVICE STATIONS	Melton Auto Port, Ballarat Rd., Melton & Melton South.	157476	1960	Road Match	0m
	MOTOR GARAGES & SERVICE STATIONS	Young's Motors, High St., Melton & Melton South.	157477	1960	Road Match	0m
	MOTOR GARAGES & SERVICE STATIONS	Melton Motors., Ballarat Rd. Melton & Melton South	116612	1950	Road Match	0m
	MOTOR GARAGES & SERVICE STATIONS	Woodgate Motors., High St. Melton & Melton South	116613	1950	Road Match	0m

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