

PSP 31.2 Toolern Part C - Paynes Road

METROPOLITAN PLANNING AUTHORITY

Land Capability Assessment

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List of abbreviations

AEP	Annual exceedance probability
AOI	Area of interest
AS	Australian Standard
ASRIS	Australian Soil Resources Information System
BoM	Bureau of Meteorology
BPEM	Best Practice Environmental Management (EPA publication 788.1)
BTEX	Benzene, toluene, ethylbenzene and xylene
CUTEP	Clean-up to extent practical
dB	Decibels
DEPI	Department of Environment and Primary Industries
DQO	Data quality objectives
DSE	Department of Sustainability and Environment (now DEPI)
DTPLI	Department of Transport, Planning and Local Infrastructure
EAO	Environmental Audit Overlay
EC	Electrical conductivity
EPA	Environment Protection Authority
ESA	Environmental Site Assessment
ESO	Environmental Significance Overlay
FZ	Farming Zone
GDE	Groundwater Dependent Ecosystems
GMA	Groundwater Management Area
GMP	Groundwater management/monitoring plan
GMS	Groundwater management system
GQRUZ	Groundwater Quality Restricted Use Zone
GW	Groundwater
GWZ	Green Wedge Zone
ha	Hectares
HO	Heritage Overlay
Hz	Hertz
MAR	Managed aquifer recharge
MPA	Metropolitan Planning Authority
NAPL	Non-aqueous phase liquid
NDPRM	Network Development Plan – Metropolitan Rail
NEPC	National Environmental Protection Council
NEPM	National Environmental Protection Measure
OMR	Outer Metropolitan Ring (transport corridor)
PAH	Polycyclic aromatic hydrocarbons
PAO	Public Acquisition Overlay
PASS	Potential acid sulphate soils
PSP	Precinct Structure Plan
PSR	Priority Sites Register
PTV	Public Transport Victoria
PUZ	Public Use Zone
RCZ	Rural Conservation Zone

RDZ	Road Zone
SAQP	Sampling, Analysis and Quality Plan
SEPP	State Environmental Protection Policy
SLO	Significant Landscape Overlay
SOBN	State Observation Bore Network
SUZ	Special Use Zone
TDS	Total dissolved solids
TPH	Total petroleum hydrocarbon
UFZ	Urban Floodway Zone
UGZ	Urban Growth Zone
UST	Underground storage tanks
VITM	Victorian Integrated Transport Model
VVG	Visualising Victoria's Groundwater
WF	Western Freeway

Executive summary

Background and objectives

Jacobs Group (Australia) Pty Ltd (Jacobs) was commissioned by the Metropolitan Planning Authority (MPA) to undertake a Land Capability Assessment of the Toolern Part C (Paynes Road) Precinct Structure Plan (PSP) Area 31.2, hereafter referred to as “the Paynes Road site” or “PSP area”.

The Paynes Road site has been identified as future land supply for urban development, which will include sensitive uses such as residential and community facilities. The aim of this assessment is to identify opportunities and constraints to the proposed land development. These may be caused by existing, past or future land uses. The assessment comprised two stages:

- Stage 1, being a review of the history of land use at the site and surrounding areas and a preliminary desktop review of information available
- Stage 2, involving inspections of the properties within the PSP area identified as presenting a potential risk. Risk in this regard relates to potential contamination, hydrogeology, hydrological and/or geotechnical issues

Scope of works

The following scope of work was undertaken at the site:

- The Stage 1 assessment comprised the gathering of relevant information (including the use of literature sources) for the purposes of identifying potential sources of contamination as well as hydrogeological, hydrological, geotechnical, noise and vibration issues
- The Stage 2 assessment included inspecting the site for potential sources of contamination, and areas of geotechnical, hydrological and hydrogeological significance identified during the Stage 1 assessment

The approach and findings of the assessment, together with supporting information, are documented within this report.

Conclusions

Site contamination assessment

Based on the information gathered during the Stage 1 & 2 assessments, the following conclusions can be made in relation to the Paynes Road PSP area:

- The site history assessment found that the site has a long history of agricultural land uses with much of the areas remaining under cultivation to the present day
- Based on the available information including a site walkover and site history assessment the following primary potential sources of contamination have been identified:
 - Highly localised areas of potential contamination associated with frequently encountered land uses. These include potential contamination hotspots associated with uses such as stockyards and general farm premises. These hotspots are likely to be localised to areas such as fuel tanks, chemical storage areas and similar
 - Highly localised areas of potential contamination associated with stockpiles and general dumped materials. In these locations contamination is likely to be localised to stockpiles themselves and in some instances shallow underlying soils
 - Diffuse but low level sources of contamination associated with the widespread application of agricultural chemicals on farmland as well as orchards and plant nurseries. These chemicals may include pesticides, herbicides, fungicides and fertilizers

Geotechnical assessment

Based on the available geological information, it is anticipated that the site is underlain by highly reactive residual clay overlying basalt rock. An indicative site classification of Class "H2 to E" has been assessed in accordance with Table D1, AS2870-1996.

Key geotechnical issues associated with development of the site include the depth and reactivity of the basaltic clay in terms of its influence on site classification, foundation selection, differential settlement, subgrade performance and excavations. Fill material, if present, is expected to be uncontrolled and may not be suitable for development in its present state. Areas subject to poor drainage may comprise soft material which provides low bearing capacity for foundations.

Hydrology assessment

No major or minor watercourses are found within the PSP; however, a gully runs through the site and stormwater management will need to be considered. The PSP area is affected by the 1% annual exceedance probability (AEP) flood level, indicating a moderate flood risk. Flood risk should be investigated as part of the design process.

Hydrogeological assessment

Based on the regional hydrogeological information and bore data in the vicinity of the site, the unconfined aquifer is associated with the Newer Volcanics basalt.

Over the majority of the site there does not appear to be any significant hydrogeological constraints which would render the land unsuitable for development. However, in the vicinity of topographical depressions it is likely shallow groundwater tables will exist. The following issues would need to be considered however, in the planning and design of any development:

- The shallow water table may cause groundwater inflow to excavations
- The saline nature of the groundwater may require careful monitoring if dewatering or extraction was required

Opportunities for groundwater use include extraction for garden watering and irrigation of parks and ovals, depending on the precise nature of the salinity of the groundwater and potential to shandy with less saline sources.

Noise and vibration assessment

Jacobs has identified potential noise and vibration sources which are at risk of adversely impacting on the proposed residential development area. These sources include road traffic and railway noise and vibration.

Indicative setback distances from existing roads and railways to the Paynes Road PSP area (potential residential area) have been proposed to achieve a low risk of exceeding noise limits at future potential residents. Provision of mitigation to road traffic and railway noise sources, will significantly reduce these setback distances.

Recommendations

Jacobs understands that the proposed future use of the site is a broad ranging urban development. Since specific future land uses within the PSP boundary are yet to be confirmed, this assessment has been completed based on the assumption that residential or other sensitive uses will be the probable land future uses across the study area.

The following further works are recommended, including recommended timings:

- Further drilling and collection of soil samples for the purposes of assessing the geotechnical soil properties for building foundation and road design. *Timing: This task should be undertaken on a site-by-site basis during future development as part of the building permit application process*
- Drilling and installation of groundwater monitoring wells to determine the depth to groundwater as well as aquifer hydraulics testing to determine aquifer properties. *Timing: It is recommended that this task be undertaken to coincide with the cessation or scaling down of current site operations across the PSP and prior to the commencement of the proposed development and construction works*
- Removal of other potentially contaminating infrastructure (e.g. septic tanks and above ground storage tanks) followed by soil validation. *Timing: This task should be undertaken on a site-by-site basis during future site development*
- Classification and appropriate removal (if required) of various stockpiles and dumped materials observed at numerous sites across the study area. This includes subsequent validation following removal. It is noted that sampling of some stockpiles of soil observed may indicate that the material is suitable for re-use as part of future development and as such removal may not be required in all instances. *Timing: This task should be undertaken on a site-by-site basis during future site development*
- Further limited assessment of the potential for contamination associated with diffuse but low level sources of contamination. *Timing: This is a low priority. It is unlikely that the broad application of agricultural chemicals has occurred / has impacted soils across the PSP, based on broadacre sampling results reported from the adjacent PSP area (PSP1099 - Rockbank PSP area) (SKM, 2014)*
- Council may wish to consider measurements of existing noise levels on the PSP area, specifically in the vicinity of the existing rail lines and roads. Jacobs considers an assessment of the existing background noise levels to be best practice to gain an understanding of the local environment and possible impacts on planned land uses. *Timing: It is recommended that this is undertaken in the near future to identify the extent of impact of these sources*

Important note about your report

This Report has been prepared by Jacobs for the sole use of the Metropolitan Planning Authority (“the Client”).

Undertaking an assessment or study of the on-site conditions may reduce the potential for exposure to the presence of contaminated or inadequate bearing ground and/or groundwater. All reports and conclusions that deal with sub-surface conditions are based on interpretation and judgement and as a result have uncertainty attached to them. It should be noted that this report contains interpretations and conclusions which are uncertain, due to the nature of the investigations. No study can completely eliminate risk, and even a rigorous assessment and/or sampling program may not detect all problem areas within a site. The following information sets out the limitations of the Report.

This Report should only be presented in full and should not be used to support any objective other than those detailed within the Agreement. In particular, the Report does not contain sufficient information to enable it to be used for any use other than the project specific requirements for which the Report was carried out, which are detailed in our Agreement. Jacobs accepts no liability to the Client for any loss and/or damage incurred as a result of changes to the usage, size, design, layout, location or any other material change to the intended purpose contemplated under this Agreement.

It is imperative to note that the Report only considers the site conditions current at the time of investigation, and to be aware that conditions may have changed due to natural forces and/or operations on or near the site. Any decisions based on the findings of the Report must take into account any subsequent changes in site conditions and/or developments in legislative and regulatory requirements. Jacobs accepts no liability to the Client for any loss and/or damage incurred as a result of a change in the site conditions and/or regulatory/legislative framework since the date of the Report.

The Report is based on an interpretation of factual information available and the professional opinion and judgement of Jacobs. Unless stated to the contrary, Jacobs has not verified the accuracy or completeness of any information received from the Client or a third party during the performance of the services under the Agreement, and Jacobs accepts no liability to the Client for any loss and/or damage incurred as a result of any inaccurate or incomplete information.

The Report is based on assumptions that the site conditions as revealed through selective sampling are indicative of conditions throughout the site. The findings are the result of standard assessment techniques used in accordance with normal practices and standards, and (to the best of our knowledge) they represent a reasonable interpretation of the current conditions on the site. However, these interpretations and assumptions cannot be substantiated until specifically tested and the Report should be regarded as preliminary advice only.

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This Report makes no comment on the presence of hazardous materials, unless specifically requested.

1. Introduction

1.1 Background and objectives

Jacobs Group (Australia) Pty Ltd (Jacobs) was commissioned by the Metropolitan Planning Authority (MPA) to undertake a Land Capability Assessment of the Toolern Part C (Paynes Road) Precinct Structure Plan (PSP) Area 31.2, hereafter referred to as “the Paynes Road site” or “PSP area”.

The Paynes Road site has been identified as future land supply for urban development, which will include sensitive uses such as residential and community facilities. The aim of this assessment is to identify opportunities and constraints to the proposed land development, which may potentially be caused by existing or past land uses, and site and sub-surface conditions. The assessment comprised two stages:

- Stage 1, being a review of the history of land use at the site and surrounding areas and a preliminary desktop review of information available.
- Stage 2, involving inspections of the properties within the PSP area identified as presenting a potential risk. Risk in this regard relates to potential contamination, hydrogeology, hydrological and/or geotechnical issues.

This report includes the findings of both the Stage 1 and 2 assessment completed.

1.2 Scope of work

The following scope of work was undertaken at the site:

- The Stage 1 assessment comprised the gathering of relevant information (including the use of literature sources) for the purposes of identifying potential sources of contamination as well as hydrogeological, hydrological, geotechnical, noise and vibration issues
- The Stage 2 assessment included inspecting the site for potential sources of contamination, and areas of geotechnical, hydrological and hydrogeological significance identified during the Stage 1 assessment

The approach and findings of the assessment, together with supporting information, are documented within this report.

2. Methodology

2.1 General assessment approach

2.1.1 Stage 1 assessment

A Stage 1 assessment (also referred to as a Phase 1 Environmental Site Assessment (ESA)) is typically undertaken to establish site conditions, historical site uses and practices. As part of this Stage 1 assessment, the following sources of information were reviewed:

- Relevant reports
- EPA priority sites register
- EPA list of certificates and statements of environmental audit (current and completed audits)
- Topographical maps
- Visualising Victoria's Groundwater (VVG) bore searches
- Geological maps
- Hydrogeological maps
- Potential acid sulfate soils (PASS) probability maps

The Stage 1 assessment aimed to identify if possible:

- Potential sources of on and off site contamination
- Pathways and receptors of contamination
- Areas of environmental concern (contamination, hydrogeological, hydrological and geotechnical) which will form the basis of subsequent assessments at the site

2.1.2 Stage 2 assessment

For this particular investigation, the site inspection works are referred to as a Stage 2 assessment. The site inspections undertaken included an inspection of areas that were identified during the Stage 1 as presenting a low, medium or high risk from a contamination, hydrological, hydrogeological or geotechnical perspective. Those properties identified during the Stage 1 assessment as presenting a very low risk were not inspected. Based on the findings of the site inspections, the need for further investigation (typically by sampling and analysis – for this investigation is referred to as a Stage 3 assessment) has been identified. While the completion of these further investigations does not form part of this scope of work, Section 2.1.3, Section 2.1.4 and Section 2.1.5 below provides an overview of the typical objectives/outcomes of such assessments.

2.1.3 Stage 3 assessment

The Stage 3 intrusive site investigation may be undertaken to characterise the site with respect to contamination, hydrogeology and geotechnical conditions. With respect to each of the abovementioned disciplines, the following works may be undertaken as part of a Stage 3 assessment:

- **A contamination assessment** will typically seek to determine the level (if any) of contamination present on site, establish the lateral and vertical distribution of contamination and identify the source(s) of on-site and off-site contamination. Prior to undertaking any intrusive soil and/or groundwater investigation, a Sampling and Analysis Plan (SAQP) is generally prepared. The SAQP defines the intended sampling locations and the contaminants which will be tested for, based on the site characteristics as determined in a Phase 1 ESA.
- **A geotechnical assessment** will typically seek to obtain information on the sub-surface conditions at the site through a geotechnical site investigation comprising a series of boreholes and/or test pits and laboratory testing. Field and laboratory test data is used to develop a site model describing the soil and/or rock profile and the variability across the site. A geotechnical assessment would generally include advice

on site classification and allowable bearing capacity for shallow foundation design and comments regarding excavations, foundation systems, pavement design and other items relevant to the proposed development.

- **A hydrogeological assessment** will typically include determination of the depth to the water table and the potentiometric surface of deeper confined aquifers through the installation of groundwater observation bores, assessment of groundwater and surface water interaction and assessment of aquifer suitability for water storage and/or supply options such as managed aquifer recharge (MAR).

2.1.4 Remediation

If significant contamination is identified at a site, to a level where the beneficial uses of land, surface water or groundwater are at risk or precluded (described in further detail in Section 3), remediation of the identified contamination may be required in order to allow for a particular land use to continue or commence in future.

2.1.5 Environmental auditing

The environmental audit system under the Environment Protection Act 1970 is administered by the Victorian Environment Protection Authority. A statutory Environmental Audit of a site involves the appointment of an EPA accredited environmental auditor to undertake an independent assessment of the environmental condition of a site and provide an opinion regarding the site's suitability for feasible or proposed end uses. A range of information including a site history assessment and results of relevant soil and groundwater testing undertaken are evaluated by the environmental auditor when forming such an opinion. At the conclusion of the audit a certificate or statement of environmental audit may be issued. A certificate indicates that the use of the land is unrestricted, whereas a statement indicates that particular beneficial uses of the land or groundwater are either precluded or suitable only under specified conditions.

2.2 Noise and vibration

2.2.1 Background

Noise and vibration has the potential to adversely impact on the community. In particular, the following land uses should be considered to be particularly sensitive to noise and vibration:

- Residential
- Places of worship
- Hospitals and nursing homes
- Schools and educational buildings

The potential noise and vibration impacts include:

- Loss of amenity
- Discomfort
- Adverse health
- Sleep arousal
- Hearing impairment (in extreme cases)
- Interference with vibration sensitive equipment

The Site is expected be affected by the following existing noise sources:

- Roads - Western Freeway
- Rail - Melbourne / Ballarat Rail Line

There is also risk that there will be future sources that affect the site. Currently this includes:

- Rail - duplication of the Melbourne / Ballarat Rail Line

There may also be other future sources that are yet to be identified.

The following information has been accessed for this assessment:

- VicRoads Traffic Noise Reduction Policy
- Passenger Rail Infrastructure Noise Policy

2.2.2 Road traffic noise

Road traffic noise has the potential to cause disturbance including sleep disturbance and to adversely impact on amenity of noise sensitive areas. The impact will depend on the number of vehicles, speed of the vehicles, mix of vehicles (percentage of heavy vehicles), road surface finish and proximity to sensitive areas. Vibration is unlikely to be an issue with general traffic.

2.2.3 Rail noise and vibration

Railways have the potential to create noise and vibration adjacent to the rail corridor. The noise and vibration generated from railways can be perceptible at sensitive locations adjacent to the railway alignment as:

- Airborne noise - noise propagated through the air to the receiver.
- Groundborne vibration: vibration propagation through the ground and into building structures. It is generally perceptible (feelable) at very low frequencies (i.e. 4 – 80 Hz), and sometimes causes rattling of building fixtures
- Regenerated noise: low frequency airborne noise that is reradiated from vibrating building structures, generally heard indoors as a *rumble*.

For at grade railway track, airborne noise impacts usually cause the highest impact. This is not the case for tunnelled railways, or railways in large cuttings, where the airborne noise is substantially reduced by shielding. Railway noise and vibration impacts at any location will depend on:

- The number of train movements
- The type and mix of trains using the railway (diesel freight and passenger services are typically louder than electrified rail vehicles)
- The physical relationship between the rail alignment and sensitive receiver (i.e. distance, shielding, gradients, curves)
- Noise associated with particular track types (e.g. switches, crossings and bridges can also result in higher levels of noise and vibration than standard continuously-welded straight track.)
- Proximity of the sensitive receiver to the railway.

3. Regulatory framework for assessment

3.1 Legislation and policy

3.1.1 Planning and Environment Act 1987

The *Planning and Environment Act 1987* sets out the requirements of planning authorities when preparing planning schemes or amendments to planning schemes. The Act requires planning authorities to “take into account any significant effects which it considers the scheme or amendment might have on the environment or which it considers the environment might have on any use or development envisaged in the scheme or amendment”.

Under Section 12 (2) (a) of the *Planning and Environment Act 1987*, the *Ministerial Direction No. 1 – Potentially Contaminated Land* requires planning authorities to satisfy themselves that the environmental conditions of land proposed to be used for a sensitive use, agriculture or public open space are, or will be, suitable for that use. This is generally done through the completion of an environmental site assessment and audit process.

3.1.2 Environment Protection Act 1970

The *Environment Protection Act 1970* established the Victorian Environment Protection Authority (EPA) and made provisions with respect to the powers, duties, and functions of the EPA and the protection of the environment. The Act provides for environmental audits, which are used to provide an authoritative opinion on the suitability of potentially contaminated land for future use, and form an integral part of the land use planning and approval process. The Act also provides the basis for the various State Environment Protection Policies (outlined below) which provide the framework for the assessment and management of the environmental quality of land, surface waters and groundwater in Victoria.

3.1.3 Land State Environment Protection Policy 2002

The State Environment Protection Policy (Prevention and Management of Contamination of Land) (Land SEPP) sets out the regulatory framework for the prevention and management of contaminated land within the State of Victoria. The intent of this framework is to maintain and maximise, to the extent practicable, the quality of the land environment in Victoria, in order to protect its existing and potential beneficial uses. The Land SEPP was declared in June 2002 in accordance with Section 16 of the *Environment Protection Act 1970*, and the Victorian EPA is responsible for its implementation.

The Land SEPP identifies a range of land use categories and a range of protected beneficial uses for each of these categories. The EPA considers that land (soil) is *polluted* where current and/or future protected beneficial uses for the relevant land use categories are precluded. Beneficial uses of land are considered to be precluded when relevant soil quality objectives set out in the Land SEPP for those beneficial uses have been exceeded. Further information on the beneficial uses of land with respect to specific land use categories can be found in Appendix A.

3.1.4 Groundwater State Environment Protection Policy 1997

The quality of groundwater in Victoria is protected under the 1997 State Environment Protection Policy (SEPP) ‘Groundwaters of Victoria’ (groundwater SEPP), declared under the *Environment Protection Act 1970* and administered by the EPA. The groundwater SEPP defines a range of protected beneficial uses for defined segments of the groundwater environment, which are based on the total dissolved solids (TDS) content of the groundwater. The EPA considers that groundwater is *polluted* where protected beneficial uses for the relevant segment are precluded. Beneficial uses of groundwater are considered to be precluded when relevant groundwater quality objectives set out in the groundwater SEPP for those beneficial uses have been exceeded, or where non-aqueous phase liquid is present.

Where groundwater has been polluted, groundwater must be cleaned up such that the protection of beneficial uses is restored, or to be cleaned up to the extent practicable. Further information on the beneficial uses of groundwater with respect to the various segments of groundwater can be found in Appendix A.

3.1.5 Surface Water State Environment Protection Policy 2003

The quality of Victoria's surface water environments are protected under the 2003 State Environment Protection Policy 'Waters of Victoria' (Surface Water SEPP) declared under the *Environment Protection Act 1970* and administered by the EPA. The Surface Water SEPP sets out the environmental values and beneficial uses of water which are to be protected for each segment of the surface water environment and includes schedules which cover some specific surface water catchments in Victoria. Beneficial uses of surface waters are considered to be precluded when relevant water quality objectives set out in the surface water SEPP for those beneficial uses have been exceeded.

In addition to assessment of surface water quality, the relevant water quality objectives stated in this SEPP are applied to groundwater at the point of groundwater discharge to a surface water system, to assess whether the maintenance of ecosystems beneficial use of groundwater is protected.

3.1.6 VicRoads Traffic Noise Reduction Policy

The policy that applies to Road Traffic Noise in Victoria is VicRoads *Traffic Noise Reduction Policy*¹. VicRoads state in this policy that they will "encourage" compatible land use next to major roads by:

- Working with planning authorities to ensure wherever possible, permitted land use beside busy roads is relatively insensitive to noise
- Encouraging the development of building regulations which will take into account both the noise level outside and the type of activity proposed inside the building."

The policy applies only to arterial and roads and freeways. While this policy does not directly address new developments adjacent to existing roads, VicRoads as a referral authority usually requires, in planning permits, for developers to comply with the *Traffic Noise Reduction Policy*. The noise limits that they apply to residential developments adjacent to roads under their control are:

External noise levels do not exceed 63 dB(A) $L_{10(18hr)}$ 10 years from completion of the development.

The VicRoads noise limits apply between the hours between 6am and 12 midnight for:

- Residential dwellings
- Aged persons homes
- Hospitals
- Motels
- Caravan parks
- Other buildings of a residential nature

The VicRoads noise limits apply between the hours between 6am and 6pm for:

- Schools
- Kindergartens
- Libraries
- Other noise sensitive community buildings

¹ VicRoads Traffic Noise Reduction Policy, February 2005

3.1.7 Passenger Rail Infrastructure Noise Policy

The policy that applies to Rail Noise in Victoria is the *Passenger Rail Infrastructure Noise Policy*².

This policy applies directly to change in land use near existing or planned passenger rail corridors. While it does not apply to Freight Rail the approach for Passenger Rail can be applied to freight.

The policy suggests that where change in land use near existing or planned passenger rail corridors is proposed then the following be considered:

- Non-sensitive uses be located along the existing or planned rail corridor*
- Developments be located or situated to protect sensitive receptors
- Options that reduce internal noise of buildings, particularly bedrooms

*Non-sensitive uses include buildings or land uses that are not dwellings, residential buildings, places of education, hospitals or places of worship.

It also proposes the thresholds in Table 3.1 for investigation of the impact of rail noise on nearby communities and exposure of people to rail noise for change in land use near an existing rail corridor.

Table 3.1 : Thresholds for investigation of the impact of rail noise on nearby communities

Time	Type of Receiver	Investigation Thresholds
Day (6am – 10pm) dB(A) External	<ul style="list-style-type: none"> • Residential dwellings and other buildings where people sleep including aged person homes, hospitals, motels and caravan parks • Noise sensitive community buildings including schools, kindergartens, libraries 	65 L_{Aeq} or 85 L_{Amax}
Night (10pm – 6am) dB(A) External	<ul style="list-style-type: none"> • Residential dwellings and other buildings where people sleep including aged person homes, hospitals, motels and caravan parks 	60 L_{Aeq} or 85 L_{Amax}

3.2 Guidelines and standards

3.2.1 National Environment Protection (Assessment of Site Contamination) Amendment Measure (NEPM) 2013

The NEPM is the national guideline for assessing contaminated sites and was prepared by the National Environment Protection Council (NEPC). The NEPM is implemented in each Australian jurisdiction under the *National Environment Protection Measures (Implementation) Act 1998 (Commonwealth)*. The NEPM document ensures there is a nationally consistent approach to the assessment of contamination. The NEPM provides guidance on the methods of site contamination assessment, environmental and health based investigation levels for soil and groundwater contaminants, human and environmental health risk assessment and reporting requirements. The original NEPM published in 1999 has been recently superseded by a version published in April 2013.

3.2.2 Various EPA publications and guidelines

The following publications and guidelines from the Victorian and New South Wales Environment Protection Authorities are commonly applied and referenced for intrusive soil and groundwater site assessments:

- EPA Victoria, 2000. Groundwater Sampling Guidelines. Publication 669
- EPA Victoria, 2006. Hydrogeological assessment (groundwater quality) guidelines. Publication 668
- NSW EPA, 2014. Technical Note: Investigation of Service Station

3.2.3 Potentially Contaminated Land General Practice Note 2005

This general practice note was produced by the former Department of Sustainability and Environment in conjunction with the Victorian EPA and provides guidance to the general public and planners on the identification of potentially contaminated land and the stages of assessment and audit required should a site be considered contaminated.

3.2.4 Australian Standard AS4482.1-2005: Guide to the investigation and sampling of sites with potentially contaminated soil – Part 1: Non-volatile and semi-volatile compounds

Australian Standard 4482.1 provides guidance on the collection of sufficient and reliable information when assessing potentially contaminated sites. In particular this standard focuses on the assessment of sites potentially contaminated with non-volatile and semi-volatile compounds. The standard covers key elements of preliminary site investigations (i.e. Stage 1 or Phase 1 ESAs), detailed site investigation methods (i.e. Phase 2 ESAs), data quality objectives (DQO), developing sampling strategies, the collection of samples and quality assurance procedures.

3.2.5 Australian Standard AS4482.2-1999: Guide to the sampling and investigation of potentially contaminated soil – Part 2: Volatile substances

This standard refers to AS448.1 regarding the establishment of preliminary site information, and provides more specific guidance on field screening and sample collection techniques when assessing sites that are potentially contaminated with volatile compounds.

3.2.6 Australian Standard AS1726-1993: Geotechnical site investigations

Australian Standard AS1726 sets out minimum requirements for a geotechnical site investigation, as a component in the engineering design, construction, commissioning and operation of civil engineering and building works.

The standard specifies considerations affecting the design and construction of works which must be made in a geotechnical site investigation. Assessment of these factors enables the identification of field and laboratory work to obtain the geotechnical data required to facilitate the engineering design and construction of the works. The standard provides guidance on suitable field and laboratory examination and testing of geotechnical materials and outlines a system of material classification.

The applications of this standard include assessment of natural or filled ground, new construction, maintenance of existing facilities, the evaluation of post construction performance and the assessment of failure.

3.3 Regulatory framework in the context of this assessment

The acts, policies, guidelines and standards relevant for each stage of assessment are set out in Table 3.2.

Table 3.2 : Acts, policies, guidelines and standards relevant for site assessments

Stage of Assessment	Relevant Acts and Policies	Relevant Guidelines and Standards	How the Regulatory Framework Applies
Proposed Change to Land Use	<i>Planning and Environment Act 1987</i>	<i>Ministerial Direction No. 1 – Potentially Contaminated Land</i> <i>DSE Potentially Contaminated Land Practice Note 2005</i>	The Planning and Environment Act requires planning authorities to satisfy themselves that the environmental conditions of land proposed to be used for a sensitive use, agriculture or public open space are, or will be, suitable for that use. This is generally done through the completion of an environmental site assessment and audit process (see below).

Stage of Assessment	Relevant Acts and Policies	Relevant Guidelines and Standards	How the Regulatory Framework Applies
Desktop Investigation (Phase 1 ESA)	<i>Environment Protection Act 1970</i> <i>Planning and Environment Act 1987</i> <i>National Environment Protection Measures (Implementation) Act 1998 (Commonwealth)</i>	NEPM 1999/2013 AS4482.1-2005 AS4482.2-1999	The Environment Protection Act and SEPPs provide the legislative basis and policy framework for the assessment and management of contaminated land and groundwater in Victoria.
Intrusive Soil, Groundwater and Geotechnical Assessments (Phase 2 ESA)	<i>Environment Protection Act 1970</i> <i>Land SEPP 2002</i> <i>Groundwater SEPP 1997</i> <i>Waters of Victoria SEPP 2003</i>	NEPM 1999/2013 AS4482.1-2005 AS4482.2-1999 AS1726-1993	The guidelines and standards provide guidance on the collection of reliable information in order to assess the environmental condition of a site appropriately.
Statutory Environmental Auditing	<i>Environment Protection Act 1970</i> <i>Planning and Environment Act 1987</i> <i>Land SEPP 2002</i> <i>Groundwater SEPP 1997</i> <i>Waters of Victoria SEPP 2003</i>	NEPM 1999/2013 Various Victorian EPA Guidelines and Publications	The environmental audit system is provided for in the Environment Protection Act 1970 and the audit process is administered by the Victorian EPA.

4. Site description

General information relating to the Paynes Road PSP area is presented in Table 4.1 below. Refer to **Figure 1** for a site location map and **Figure 2** for a site plan, attached at the end of this report.

Table 4.1 : Details for Paynes Road PSP area

Item	Paynes Road PSP Area Description
Location / Address	The Paynes Road PSP area comprises a roughly quadrilateral area of land to the immediate south of the Western Freeway. The PSP is demarcated to the east by Paynes Road and to the west by Mount Cottrell Road. The PSP is bounded to the south by the Melbourne to Ballarat railway line. The site extends approximately 1.7km east – west and 1.3km north – south.
Australian Map Grid Coordinates	Centre at 290,935 mE; 5,823,240 mN North-western extent at 290,280 mE; 5,824,475 mN South-western extent at 290,110 mE; 5,822,895 mN North-eastern extent at 291,713 mE; 5,823,250 mN South-eastern extent at 291,610 mE; 5,822,320 mN
Current Title Information	The Mt Atkinson PSP area is divided into 16 individual parcels of land. Current title information for selected parcels of land are summarised in Appendix B.
Site Area (ha)	198 hectares.
Local Council	Melton Shire Council
Current Land Zoning	Under the Melton Planning Scheme, the PSP area is zoned as Urban Growth Zone 3 (UGZ3)
Zoning of Surrounding Land	The PSP area is bounded to the north by the Western Freeway which, under the Melton Planning Scheme, is zoned as Road Zone 1 (RDZ1). The PSP is bounded to the south by the Melbourne to Ballarat railway line. This is zoned as Public Use Zone 4 (PUZ4). The site is otherwise surrounded by land zoned as Urban Growth Zone 3 (UGZ3). Figure 4 shows the land zoning relevant to the Paynes Road PSP area.
Easements	There are no easements located within the PSP area.
Overlays	There are no sites with an environmental audit overlay within the PSP area or within 200 m of the site, however the southern boundary of the site is bounded by the Melbourne to Ballarat railway line. This is zoned as Public Use Zone and an Environmental Significance Overlay (ESO) has also been applied. Figure 5 shows the planning overlays relevant to the Paynes Road PSP area.
Site Layout	The site is relatively open and flat lying at an elevation of around 110 mAHD. The eastern half of the site is bisected by a single local access road (Murray Road) that provides access to three rural properties towards the centre of the PSP.
Current Land Uses	The area is primarily used for agricultural purposes with large areas of open farmland as well as associated infrastructure (farm buildings, local and private access roads etc.). Two riding tracks (horses) are also present towards the south-east corner of the site.
Proposed Land Uses	The proposed future use of the site is as future land supply for land uses including sensitive uses such as residential and community facilities in addition to open space, retail and a range of business No specific land uses have been allocated to individual parcels of land.
Surrounding Land Uses	To the north of the site beyond the Western Highway is agricultural land, similarly to the east, west and south of the site. There are however some residential properties, most likely farm residences.

5. Information review

This section summarises the various sources of information, records and reports reviewed as part of the Stage 1 desktop assessment.

5.1 Current certificate of title information

Certificates of title were reviewed to ascertain information on the current and historical land uses of five properties at the site perceived to be higher risk in relation to land contamination. A summary of the title information is provided in Appendix B with locations illustrated in **Figure 8**. A review of the collected titles revealed no land uses of particular concern. However, records for 1966 and 1957 suggest ownership of all five parcels by Thomas Greateorex (Manufacturer) and Ellen Volant and Thomas Greateorex (Manufacturer) respectively. Historical aerial imagery provides no indication of any form of industrial land use at the site, and as such the reference to a 'Manufacturer' as the noted occupation must relate to activities elsewhere.

All title searches were conducted by Feigl and Newell Title Searchers. The three most recent titles were reviewed for each identified parcel at the site.

5.2 EPA Priority Sites Register

A search of the EPA's Priority Sites Register (PSR), which lists those sites for which EPA has requirements for active management of land and groundwater contamination, was conducted. Sites within the Paynes Road PSP area are not listed on the PSR, nor were there any registered priority sites within a 3km radius of the area. A copy of the reviewed PSR (dated 30th June 2014) is provided in Appendix C.

5.3 EPA List of sites issued with Statements and Certificates of Environmental Audit

Under Victoria's *Environment Protection Act 1970*, statutory environmental audits of potentially contaminated land result in the issue of a Certificate of Environmental Audit if the site is considered suitable for any beneficial use (and land uses). Sites are issued a Statement of Environmental Audit if they are not found to be suitable for all beneficial uses (or land uses), as defined under Section 4 of the Act. Issue of a Statement indicates that some contamination remains at the site. A statement precludes one or more beneficial uses and/or requires management for the site to be suitable for one or more land uses.

The Victorian EPA maintains a list of all sites for which a Certificate or Statement of Environmental Audit has been issued. At the time of reporting no sites were identified within a 3km radius of the Paynes Road PSP area as having been issued with either a Statement or Certificate of Environmental Audit.

5.4 Historical aerial photography review

Aerial photographs from 1962 to 2013 were reviewed for land use changes. Observations are summarised in Table 5.1 below. Refer to **Figure 6A** through to **Figure 6G** for aerial photographs.

Table 5.1 : Aerial photograph and historical plan summary

Date	Photo / Plan	Description	Source
1962	Aerial Photo	The 1962 imagery of the study area indicates that the site was largely used for farming with only rare residences and other features evident. The railway line is evident in its current location. The Western Freeway appears to be present.	DSE – LIC
1970	Aerial Photo	By 1970 little has changed within the study area. There are a limited number of buildings as in 1962 but otherwise the area is sparsely populated. The Western Freeway also appears to have been upgraded.	DSE – LIC
1982	Aerial Photo	The PSP remains predominantly undeveloped farmland with a single farm residence	DSE – LIC

Date	Photo / Plan	Description	Source
		towards the centre of the PSP. Surrounding land uses also remain unchanged, comprising predominantly farmland along with the Western Freeway to the north and railway line to the south.	
1991	Aerial Photo	By 1991 the two rural residences towards the south-east corner of the site are present but otherwise the site is unchanged. The surrounding area also remains unchanged.	DSE – LIC
2001	Aerial Photo	By 2001 further rural residences are present at the site including the three that are currently located towards the centre of the site. Murray Road which provides local access to these properties is also present. Further farm residences are also present towards the west of the site as well as the two trotting tracks towards the south east of the PSP area.	MCC
2007	Aerial Photo	The PSP does not appear to have undergone any notable changes between 2001 and 2007. Similarly, surrounding land uses also appear largely unchanged.	MCC
2013	Aerial Photo	The PSP remains unchanged in 2013. Similarly, no notable changes are evident in the surrounding area.	MCC

5.5 Historical zoning records review

The Department of Planning and Community Development (DPCD) website was accessed for historical zoning information in relation to the site. Limited historical planning information was available for 1954, 1959, 1968 and 1985.

Historic planning information was not available for the PSP for 1954, 1959 and 1968. In 1985 the PSP area was zoned as 'Corridor A' (C1), along with much of the surrounding area, with the exception of the railway corridor to the south (zoned as existing railway, 'RW') and the Western Freeway to the north, zoned as 'Main Road' (MR), a small area just south of the Western Freeway was zoned as 'Reserved Living, 'R4').

5.6 Data integrity assessment

It is recognised that the prior land use information above is not exhaustive and only a relatively general history of the sites has been established. However, the completeness and quality of the historical data is considered to be sufficient for the purposes of the assessment.

The table below represents the years for which site use history data collected during this investigation was available.

Table 5.2 : Information availability

	1880 - 1900				1900 - 1920				1920 - 1940				1940 - 1960				1960 - 1980				1980 - 2000				2000 -			
Historical plans																												
Aerial photographs																												
Historical photos																												

Note: Blank boxes indicate no information was obtained.

Shaded boxes indicate information was reviewed.

6. Hydrological assessment

For the purposes of this study, the hydrological assessment covered the distribution and movement of surface waters at the site with respect to potential implications for future site use.

6.1 Site setting

The PSP is located approximately 1.4 km to the south of Kororoit Creek. There are no major or minor watercourses located within or immediately surrounding the PSP. However, there is a gully which runs through the PSP, from the south west to the north east, and this will convey stormwater runoff during high rainfall events.

The PSP is affected by the 1% annual exceedance probability (AEP) flood level, from Kororoit Creek to the north.

Although there appears to be a wetland to the south of the PSP area and two to the east, aerial imagery indicates that these are more likely to be small depressions in the landscape, rather than permanent wetlands. These are not connected to visible drainage lines.

6.2 Development opportunities and constraints

The gully within the Paynes Road PSP area should be considered within the development design of the site and diversions or permanent channels are likely to be required, in order to manage the stormwater flows in the gully.

The entire PSP area is located approximately 1.4km from the closest watercourse (Kororoit Creek to the north); it is affected by the 1% AEP flood level and is considered to have a moderate risk of flooding. Flood risk should be investigated as part of the design process.

Integrated water cycle management could potentially be utilised to harvest rainwater/stormwater from the developed areas within the PSP.

7. Hydrogeological assessment

For the purposes of this study, the hydrogeological assessment covered the distribution and movement of groundwater at the site with respect to potential implications for future site use.

7.1 Site settings

7.1.1 Regional hydrogeology

The Paynes Road PSP area is located at the northern edge of the Port Phillip Basin. North of the site the Basin is around 100 m thick while towards the south of the site the Basin increases in thickness to around 400 m.

The main aquifer of the site is the Newer Volcanics regional aquifer and is underlain by Tertiary aged Fluvial sands. Within this aquifer groundwater occupies joint openings and vesicles in the basalt and contact zones between various basalt flows. The water table resides within both the fractured rock of Newer Volcanic aquifer and within the regolith that has formed upon the volcanics. The fractured basalt aquifer will have highly variable permeability but generally low, providing low bore yields and sluggish groundwater flow.

Groundwater contours indicate regional groundwater movement towards the south-east (towards Port Phillip Bay) (Shugg 1980), with local recharge and discharge likely throughout the study area. Visualising Victoria's Groundwater (<http://www.vvg.org.au>) was accessed to identify the presence of any nearby registered groundwater bores. A search of bores within a 5 km radius of the centre of the site was undertaken and this returned 174 bores registered for stock and domestic groundwater use, two bores for irrigation use and two bores for irrigation use. One hundred and ninety-six additional bores were identified for unknown use types, use for investigation or observation purposes or a non-groundwater bore.

Time series groundwater data indicates the water table follows medium term rainfall trends (5 to 10 years). Groundwater levels across the basalt aquifer will vary in the order of 1 to 2 metres (). In wet periods (mid 1990s) water tables were shallowest and during dry periods, particularly 2007 to 2009, water tables fell by approximately 1 m and have since risen in response to the recent wet period.

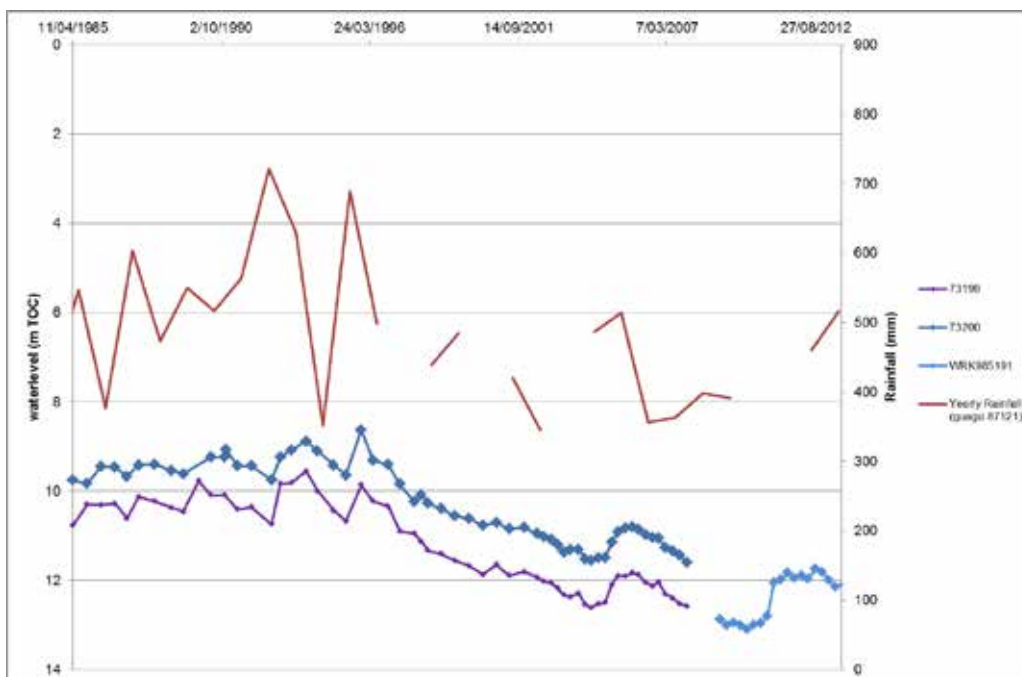


Figure 7.1 : Hydrographs for the site

The hydrographs above are for three monitoring bores (73199, 73200 and WRK985191) within a 5 km radius of the site. All three bores are located to the east of the site near the corner of the Western Freeway and Leakes Road.

The water table is typically 10 - 20 m below ground level across the majority of the western growth corridor within recharge zones with shallow groundwater levels and discharges into major wetlands and creeks. In topographically elevated areas, depth to water increases to greater than 20 m (it is greatest under the basalt cones such as Mt Cottrell), and in drainage areas such as waterways and wetlands, depth to water is greater than 2 m during wet periods. Groundwater discharge across the basalt plains is associated with major drainage lines, geological boundaries and topographic depressions (e.g. wetlands) (Bennetts et al 2003), a typical example of groundwater discharge is Kororoit Creek (north of the site).

Within the study area historical water table monitoring data recorded levels as ranging between approximately 9.0 and 13.0 meters (top of casing) below natural surface elevation. The Atlas of Groundwater Dependent Ecosystems (BoM, 2012) does not identify any features within the boundary of the Paynes Road PSP as having any "potential for groundwater interaction" (see below). However, there are a number of features surrounding the PSP that indicate a medium to high potential for groundwater interaction, including Kororoit Creek to the north. It is likely that the depth to water table in these areas of potential groundwater interaction (generally low elevation) would be less than 2 m.

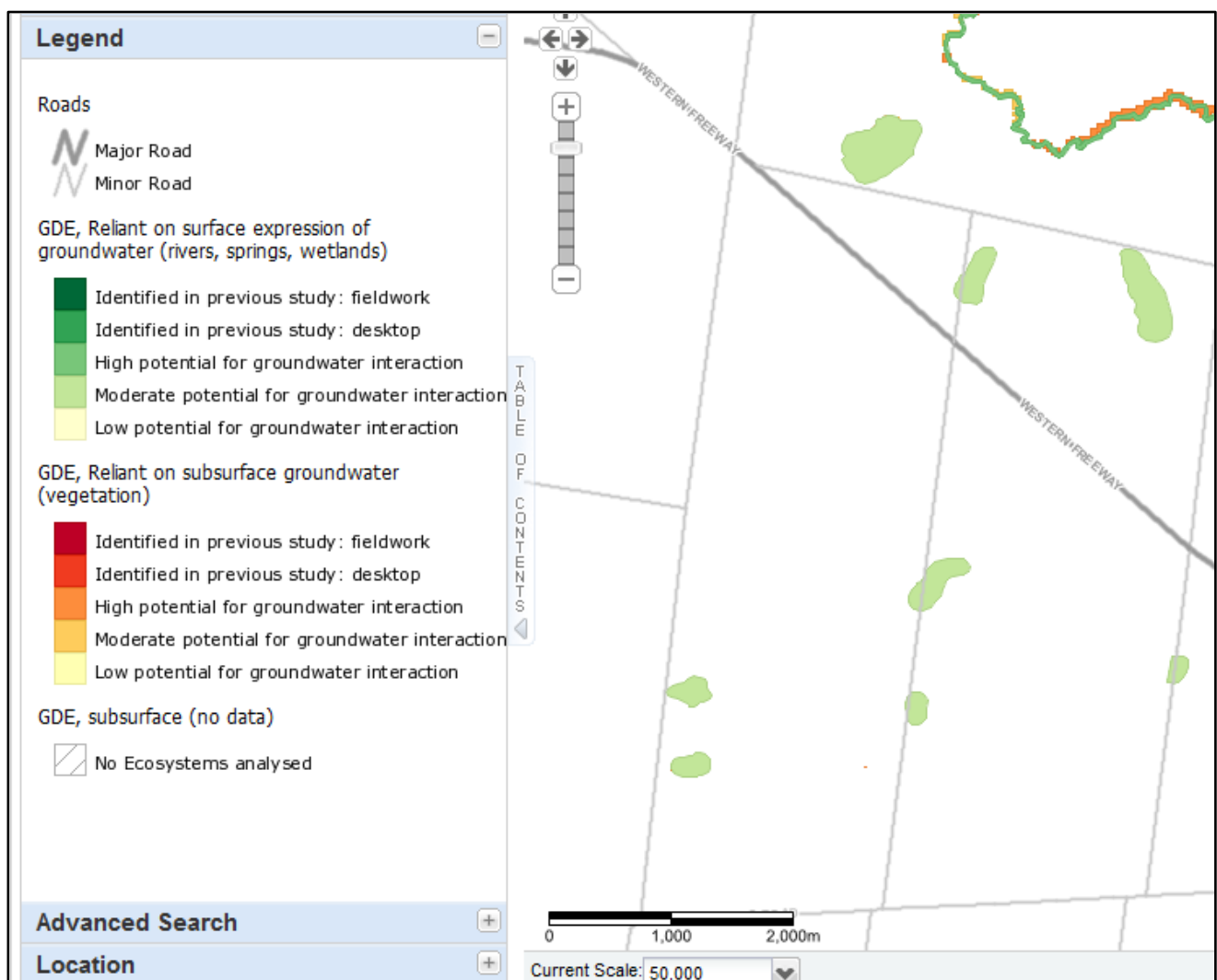


Figure 7.2 : Atlas of groundwater dependent ecosystem search (BoM, 2012)

The site does not currently reside within any Groundwater Management Area (GMA).

The locations of the groundwater bores are shown on **Figure 3** and **Figure 7a** and information on each of the registered groundwater bores is presented in **Appendix D**.

7.1.2 Regional groundwater quality

Of the sixteen (16) observation bores identified from Visualising Victoria's Groundwater within a 5 km radius of the centre of the Paynes Road PSP, only one is currently being monitored (SOBN bore WRK985188) however no water quality parameters are being monitored at these sites.

Limited chemistry information is available for groundwater bores the area, however historical laboratory analysis was available for two bores located in the area (73199 and 73200) and the results are summarised in **Table 7.1**.

TDS is approximately 2,000 – 2,500mg/L in the regional groundwater (although can range from 1,000 – 3,500mg/L). This is supported by salinity readings recorded for the two bores with historical data in the area, ranging between 715 to 2,145 mg/L TDS.

The beneficial use of groundwater resources is defined in the State Environment Protection Policy (SEPP) - Groundwaters of Victoria (Victorian Government 1997) in terms of total groundwater salinity. Comparison of regional groundwater salinities (TDS) with beneficial use segments defined in the SEPP indicates that the beneficial uses of groundwater in the vicinity of the site fall within segment B and C. This indicates that the groundwater is suitable for all beneficial uses except for potable water use.

Table 7.1 : Summary of regional bore groundwater chemistry

Parameter	Reported concentration(s)
TDS*	715 – 2,145 mg/L
pH	7.9 – 8.5
Chloride (Cl)	160 - 830 mg/L
Carbonate (CO ₃)	N/A
Bicarbonate (HCO ₃)	292 – 414 mg/L
Total Alkalinity	240 – 340 mg/L
Sulphate (SO ₄)	38 – 120 mg/L
Nitrogen (N)	N/A
Calcium (Ca)	12 – 53 mg/L
Magnesium (Mg)	34 - 140 mg/L
Sodium (Na)	180 – 450 mg/L
Potassium (K)	6.4 - 13 mg/L
Iron (Fe)	<0.05 – 4.5 mg/L

Notes: * Converted from EC to TDS using a conversion factor of 0.65.

TDS – Total Dissolved Solids and EC – Electrical Conductivity

7.1.3 Groundwater use

The site is not currently represented by any GMAs which are generally declared in response to significant groundwater use and declining water levels in the area.

A search of Visualising Victoria's Groundwater revealed that there are 374 bores located within a 5km radius of the centre of the PSP. A summary of the groundwater bore uses as registered on Visualising Victoria's Groundwater is provided in **Table 7.2**.

Table 7.2 : Summary of registered groundwater bore uses

Groundwater bore use(s)	No. of registered groundwater bores
Domestic and Stock	174
Irrigation	2
Industrial	2
Groundwater Investigation	10
Observation	15
Non Groundwater	75
Unknown use	96
Total	374

7.2 Site Characterisation

Based on the regional hydrogeological information and bore data in the vicinity of the site, the conceptual hydrogeological model for the site is:

- The Toolern PSP area is located at the northern edge of the Port Phillip Basin, north of the site the Basin is around 100 m thick, south of the site the Basin increases in thickness to around 400 m.
- The main aquifer of the site is the Newer Volcanics regional aquifer. The water table residues within both the fractured rock of Newer Volcanic aquifer and where shallow within the regolith that has formed upon the volcanics.
- Historical water table data from Visualising Victoria's Groundwater recorded groundwater level range between approximately 9.0 and 13.0 meters (TOC) below natural surface elevation. The Atlas of Groundwater Dependent Ecosystems (BoM, 2012) does not identify any features within the boundary of the Toolern PSP as having any "potential for groundwater interaction" (see **Section 7.1.1**). However, there are a number of features surrounding the PSP that indicate a medium to high potential for groundwater interaction, including Kororoit Creek to the north. It is likely that the depth to water table in these areas of potential groundwater interaction (generally low elevation) would be less than 2 m.
- The 174 registered bores range in depth for from 0.45 – 200 m. The depths of these bores indicate that generally groundwater extraction is occurring in the Newer Volcanics aquifer, however this fractured basalt aquifer is likely to have a generally low permeability, providing low bore yields and sluggish groundwater flow.
- Groundwater discharge areas are associated with major drainage lines, geological boundaries and topographic depressions (e.g. creeks)
- All locations where groundwater is not discharging are potential recharge areas. The basalt aquifer is recharged naturally by direct infiltration of rainfall (through the soil) and downward leakage from surface streams and wetlands that collect surface water.
- Groundwater quality in the regional aquifer can range from 1,000 – 3,500mg/L TDS and is therefore saline. Based on the beneficial use segments defined in the SEPP, the groundwater is suitable for all purposes except potable water use.

7.3 Development opportunities and constraints

Based on the regional hydrogeological information and bore data in the vicinity of the site, the unconfined aquifer is associated with the Newer Volcanics basalt.

Over the majority of the site there does not appear to be any significant hydrogeological constraints which would render the land unsuitable for development. However, in the vicinity of topographical depressions (e.g. features identified in the GDE Atlas; it is likely shallow groundwater tables will exist. The following issues would need to be considered however, in the planning and design of any development:

- The shallow water table may cause groundwater inflow to excavations
- The saline nature of the groundwater may require careful monitoring if dewatering or extraction was required

Opportunities for groundwater use include extraction for garden watering and irrigation of parks and ovals, depending on the precise nature of the salinity of the groundwater and potential to shandy with less saline sources.

8. Geotechnical assessment

For the purposes of this study, the geotechnical assessment covered near-surface geological conditions, soil and rock types with respect to potential implications for infrastructure development.

8.1 Regional Geology

The Department of Primary Industries (DPI) Online Geological Map (accessed in June 2014) was reviewed to determine the geological conditions at the Toolern PSP area.

The main geological unit to be encountered during future development of the site is likely to be basalt of the Newer Volcanics Formation (Qvn2 or Qno1). However, this may be overlain by associated weathered basaltic clays.

The surface geology for the site and the immediate surrounding area is presented in **Figure 3** at the end of this report.

8.2 Site characterisation

The site is underlain by the Quaternary aged Newer Volcanics Formation. The upper portion of the basalt profile in this formation (usually up to several metres) is typically weathered to highly reactive residual clay. However, shallow rock can be encountered, and large near surface basalt boulders (known as “floaters” or “corestones”) are often encountered in a clay matrix.

An indicative site classification of Class “H2 to E” is applicable to these conditions in accordance with AS2870-2011 (Residential Slabs and Footings). This classification would depend on the depth, thickness and reactivity of the clay material in this area. The thickness of the residual soil profile in the Newer Volcanics is variable, and it is Jacobs’ experience in this area and with this geological unit that the depth to basalt can vary significantly over relatively short horizontal distances.

Given the previous use of the site, it is considered that areas of fill material may be present (although limited in extent). A site classification of Class “P” would apply for such areas where the history of the filling is unknown. A site classification of Class “P” requires that footings be designed on the basis of engineering principles as opposed to the adoption of the standard footing designs presented in AS2870.

The above site classifications are based on regional geological information and are intended for preliminary consideration only. Site specific geotechnical site investigations which may include soil sampling and laboratory testing should be undertaken prior to the design and construction of any footing systems, pavements and associated civil infrastructure as part of any future building permit application.

8.3 Development opportunities and constraints

The following issues requiring consideration in the planning and design of any development and should be assessed through a geotechnical site investigation.

- The depth and reactivity of the Newer Volcanics residual clay which forms the surface geology across the site would determine the site classification for foundation design. It is expected that the site would be considered highly reactive (Class “H2 to E”)
- The variable thickness of the clay horizon over relatively short horizontal distances can lead to differential settlement of structures. As such, a geotechnical investigation is required to assess the depth to rock across the site
- Excavations in the Newer Volcanics formation can transition abruptly from readily easily excavatable clays into high strength basalt, which may require rock breaking techniques or blasting. In the case of developments requiring excavations, delineation of the soil/rock interface should be assessed

- Design of roads, drainage works and underground assets would require consideration of the highly reactive nature of the clays to ensure serviceable performance and minimise ongoing maintenance requirements
- Fill material, which may be present, is expected to be uncontrolled and may not be suitable as a founding material in its current state

9. Contamination assessment

9.1 Site setting

There are currently no sites with an environmental audit overlay within the PSP area or within 200 m of the site. A review of the Australian Soil Resources Information System (ASRIS) online map in July 2014 describes the soil at the Paynes Road PSP site as clay loam, sandy or silty clay loam (30 - 35%).

The ASRIS online map was also accessed for information regarding acid sulfate soils. The map indicates that soils within the Paynes Road PSP area can be classed as having an extremely low probability of acid sulfate soil occurrence (ASRIS, 2010).

9.2 Site characterisation

Based on the information presented in the previous sections, potential sources of on-site contamination were assigned a qualitative level of risk based on the likelihood of the contamination representing a potential constraint to future development at the site. Where potential on-site sources of contamination were identified as presenting a potential risk that was perceived to be greater than 'very low', a site inspection was carried out (with this representing the Stage 2 assessment).

Off-site potential sources of contamination were also inspected during the Stage 2 assessment (where possible). These too were assigned a qualitative risk level based on the likelihood of the contamination representing a potential constraint to future development of the Paynes Road PSP area.

Detailed walkovers at the properties containing Areas of Interest (AOIs) 2 through to 8 were undertaken by visually assessing potential sources of contamination during site inspections. The property containing AOI 1 was not accessible due to the property owner declining access. The remaining AOIs (9 to 15) were each identified site from publicly accessible areas (such as roads and footpaths).

As such, some sites identified during the Stage 1 assessment as presenting a potential for contamination could not be assessed owing to limited visibility. This limitation has been considered in assigning the revised qualitative risk ranking.

While each identified property is slightly different with respect to the potential for contamination, there are some land uses or potential contamination sources which recur across the PSP and the surrounding area. The most common potential sources of contamination observed within the study area include farm residences and associated sheds, stockyards and imported fill (including tipped waste and miscellaneous stockpiles). While **Table 9.1** identifies potential contaminants of concern relevant to each property assessed, the presence of other contaminants of concern cannot be ruled out at this stage owing to the preliminary nature of the assessment of each individual property. These common land uses are discussed below as well as general comments relating to the PSP area and surrounding land use.

Farm residences and associated sheds

Rural farm residences and associated sheds are the most common potential source of contamination identified at the Paynes Road PSP, with four such sites identified (split across three areas of interest, or AOIs in Table 9.1). These areas are typically used for storage of farm machinery (both operational and non-operational), materials, vehicles and many other miscellaneous items. These yards may also include fuel storage areas for refuelling farm machinery (typically in above-ground storage tanks) as well as storage areas for items such as agricultural chemicals (pesticides, herbicides etc.) and oils, lubricants and solvents for the maintenance of machinery.

Since farm residences can be fairly isolated, the use of septic tanks for sewerage purposes rather than reticulated mains sewerage is fairly common. However, since these are underground structures they can be difficult to identify.

Storage shed construction can vary depending on their age and can be variously formed of timber, corrugated iron, asbestos cement sheeting, blocks/bricks and concrete. Some sheds may also incorporate concrete floor slabs while others do not.



Plate 9.1 : Example of above ground storage tank



Plate 9.2 : Example of typical farm machinery shed

Based on the above, the most likely sources of contamination include spillages of fuels as well as impacts on soils by metals resulting from general machinery/equipment storage and maintenance of farm vehicles. However, spillages of other agricultural chemicals may also impact upon soils. Given that such chemicals are typically stored in small volumes (less than 20L) impacts are therefore likely to be extremely localised in extent. Additional contaminants of concern can also include biological contaminants and nutrients associated with leakages from septic tank systems.

Asbestos was also commonly used as a building material with a number of applications in Australia as early as the 1880s (although more frequently in the mid to late 1900s). While asbestos presents a limited risk while it remain in a bonded matrix (i.e. as bonded asbestos cement sheeting), mobilised free fibres can present a greater potential risk. Mobilisation can occur through a number of processes including (but not limited to) abrasion, sanding and cutting.

Stockyards

Stockyard structures were noted within the PSP study area, and were typically adjoining the farm buildings discussed above. These are used to hold livestock prior to loading on to trucks. They are typically timber enclosures, sometimes including a small covered shed for storage.

Stockyards can also be accompanied by adjacent sheep dips used which are used to dose/treat sheep. Typically forming a narrow pit/channel, they are filled with a liquid formulation of fungicide/insecticide through which the sheep are passed before being held in an enclosure to allow surplus formulation to drain.

Sheep dips or pen-structures suggesting the presence of a sheep dip were observed on at least three properties (AOI 6, 7 and 8). These properties were included in the detailed site walkovers. Other properties could not be visually assessed to confirm their absence. The absence of a dedicated in-situ sheep dip does not rule out such an activity taking place at a stockyard, currently or in the past, as metals troughs can also be used a mobile alternative.

Contamination of soil and groundwater can result from the above activities as the liquid formulation either leaks from defects in the dipping infrastructure (be it a permanent sheep dip or mobile trough) or drains from sheep while they are retained in the holding enclosures after dipping is completed.

The potential for this contaminating land use has been incorporated into the qualitative risk ranking for individual properties.



Plate 9.3 : Example of a stockyard structure



Plate 9.4 : Example of typical sheep dip

Imported fill, tipped waste and stockpiled material

The presence of imported fill can be difficult to identify without undertaking intrusive investigations, particularly in areas which are heavily vegetated. Fill material is most likely to be found in locations where previous construction/development works have been undertaken. Stockpiles of soil and tipped waste material were also noted frequently across the study areas.

Potential contaminants of concern associated with fill material, tipped waste and stockpiled materials can vary significantly depending on their source and time at which they were deposited. Since such information is rarely available specific contaminants of concern often cannot be adequately identified without laboratory analysis (although visual and olfactory observations can provide limited information). However, the most commonly encountered contaminant groups include total petroleum hydrocarbons (TPH), polycyclic aromatic hydrocarbons (PAHs) and metals. However, asbestos is also a frequently encountered contaminant of concern, particularly in building rubble.

General agricultural land use

Much of the land forming the Paynes Road PSP area has been used for agricultural purposes for an extended period of time. As such, there is likely to be a long history of general agricultural processes within the study area. The most notable of which is crop spraying. Potential contaminants of concern associated with this process typically include pesticides, herbicides and fungicides as well as potentially nutrients (from manure, slurry application and other fertilizers).

While this general use has not been explicitly identified in **Table 9.1**, owing to its site-wide relevance this historical use is considered to present a very low risk of causing contamination.

9.2.1 Potential sources of contamination on site and findings of site inspection

The potential on-site sources of contamination as identified above were targeted during the site inspection of the Payne Road PSP area on 31 July 2014, where possible. Each of the potential sources of on-site contamination identified during the Stage 1 and 2 assessments are presented in **Table 9.1** along with the findings of the Stage 2 site inspection. The original risk rankings have been re-evaluated following the site inspection with the revised risk rankings also provided.

The numbers attributed to areas of interest referred to in **Table 9.1** have been allocated to a particular area by Jacobs for the purposes of this investigation. **Figure 7** and **Figure 7a** show each of these areas of interest.

Table 9.1 : Summary of potential on site sources of contamination

Area of Interest	Site Use/Activity	Potentially Contaminated Medium	Potential Contaminants of Concern	Findings of Site Inspection	Potential Contamination Risk	Further Site Specific Assessment
1	Farm buildings and disturbed ground	Soil and groundwater	TPH and metals most likely but various others associated with stockpiling	Disturbed ground with some minor waste items present.	L - M	None
2	Plantation or similar	Soil and groundwater	Nutrients, herbicides and pesticides	Large rural residence with olive and apple plantation. Large shed containing equipment to preserve olives. Some areas of vegetable patches and greenhouses (market garden) and prickly pear crop. Possible spraying. Some stockpiles present. Some above-ground storage tanks present- appear to not be in operation.	L - M	None
3	Disturbed ground and stockpiling	Soil	Various associated with stockpiling	Area of abandoned vehicles and minor miscellaneous waste items.	L - M	None
4	Plantation or similar	Soil and groundwater	Nutrients, herbicides and pesticides	Rural residence with adjoining plantation (grape vines and olives). Miscellaneous buildings also present (workshops, greenhouses, chicken coups, chemical and goods storage) and stockyards with stockpiles.	L - M	None
5	Disturbed ground and stockpiling	Soil	Various associated with fill material and stockpiling	Area of disturbed ground with miscellaneous waste items present. Two distinct areas with stockpiles of wood, bricks, wires surrounded by cropped land.	L - M	None
6	Farm residences with and miscellaneous buildings present	Soil and groundwater	TPH and metals most likely but various others associated with stockpiling	Rural residences with numerous outbuildings. Some localised miscellaneous waste evident as well as animal pens and horse agistment. Some sheds with old vehicles and tractors. Some storage tanks present- likely for water storage.	L - M	None
7	Farm residences with stockyard	Soil and groundwater	Herbicides, insecticides and fungicides	Rural residence with stockyard and chicken coups also present.	L - M	None
8	Rural residence with some evidence of disturbed ground	Soil	Various associated with fill material	Miscellaneous farm building with evidence of some disturbed ground and waste items. Various stockpiles of concrete rubble, metal.	L - M	None

Notes:

TPH – Total Petroleum Hydrocarbons

Nutrients – Ammonia, nitrate, nitrite, phosphate

9.2.2 Potential off-site sources of contamination

Sites located beyond the PSP study area boundary were also considered during the Stage 1 assessment in order to identify any potentially contaminating land uses that may impact upon the future uses of land within the Paynes Road PSP area itself. Off-site sources identified in the vicinity of the PSP area are summarised in **Table 9.2** and illustrated in **Figure 7** and **Figure 7a**. Areas of interest listed in this table were inspected from publicly accessible locations during the Stage 2 assessment.

Areas of interest located outside of the Paynes Road PSP area are generally inferred to present a very low or low potential risk of contamination of the study area.

Table 9.2 : Summary of potential off site sources of contamination

AOI	Site Use/Activity	Potentially Contaminated Medium	Potential Contaminants of Concern	Findings of Site Inspection	Potential Contamination Risk	Further Site Specific Assessment
9	Disturbed ground, dumped material and plantation or similar	Soil and groundwater	Various associated with stockpiling and fill material as well as nutrients, herbicides and pesticides associated with plantation.	Minor general waste evident. Small; plantation area, possible spraying.	L	None
10	Farm residences with and miscellaneous buildings present as well as stockyards	Soil and groundwater	TPH and metals most likely but various others associated with stockpiling. Possible herbicides, insecticides and fungicides associated with stockyards.	Rural residence with some minor miscellaneous waste items present (car bodies etc.). Some stock pens also present	L	None
11	Railway alignment	Soil	Various associated with fill material	Railway corridor with likely imported fill. Possible historic spraying.	L	None
12	Possible stockyard	Soil and groundwater	Herbicides, insecticides and fungicides	Stockyard present	L - M	None
13	Possible stockyard	Soil and groundwater	Herbicides, insecticides and fungicides	Stockyard present	L - M	None
14	Farm residence with multiple stock pens	Soil and groundwater	Herbicides, insecticides and fungicides	Stockyard with numerous pens.	L - M	None
15	Rural residence with some evidence of disturbed ground. Stockyard also present	Soil	Various associated with fill material. Herbicides, insecticides and fungicides associated with sheep dip and TPH and metals associated with general farm buildings.	Rural residences with some miscellaneous waste items towards the north of the area. Some stock pens also present towards the south.	L	None

Notes:

TPH – Total Petroleum Hydrocarbons

Nutrients – Ammonia, nitrate, nitrite, phosphate

9.2.3 Potential receptors of contamination

Potential receptors of contamination (should any exist) relevant at or near the PSP area include:

- General site workers
- Residents at the site
- Future construction workers at the site
- Visitors to the site
- Workers servicing underground utilities located on and around the site
- Surrounding residents and occupants and visitors (via windblown contamination during excavation works)
- Sensitive land based ecosystems on and near the site

9.2.4 Exposure pathways & mechanisms

These potential receptors may be impacted through ingestion, inhalation or dermal contact with potentially contaminated soil (on site) and groundwater (on and off site). Off-site receptors (including humans and aquatic and land based ecosystems) may be impacted through the transport of contamination via a number of pathways such as trenches/conduits containing underground services (from the site to off-site locations), storm water drainage networks, surface drainage via overland flow (runoff), groundwater flow and surface water transport.

9.3 Development opportunities and constraints

9.3.1 General

Based on the information described in this report, there do not appear to be any significant constraints from a site contamination perspective which would render the land unsuitable for any feasible land use.

The areas of primary concern comprise discrete or localised areas of ground disturbance or minor stockpiling that can likely be cost-effectively managed during future development of the PSP under the general provisions of Section 12(2)(b) and Section 60(1)(a)(iii) of the Planning and Environment Act 1987.

10. Noise and vibration

10.1 Site characterisation

10.1.1 Road Traffic Noise

The Western Freeway is the only significant road in the vicinity of the PSP site. Predicted traffic volumes, heavy vehicle percentages and design speed limits for these roads are presented in Table 10.1 for the year 2030. These have been obtained from the VITM traffic model and extrapolated between 2026 and 2046. 2030 has been used as this is expected to be 10 years following residential development.

Table 10.1 : Traffic data for the Western Freeway

Road	Daily Traffic Volumes (2 Way)	Heavy Vehicle %	Design Speed Limit
Western Freeway (WF)	22,338	11.3	110

Indicative set back distances can be determined based on where the predicted traffic noise levels complying with the noise limits defined in VicRoads *Traffic Noise Reduction Policy*. The setback distances for development will depend on the type of development and intervening shielding and traffic source noise level which is based upon traffic volume, traffic mix, traffic speed and road surface type.

Typically the following minimum set back distance from the Western Freeway expected to apply to single storey dwellings based on no additional mitigation to achieve VicRoads' noise limits is 220 m. This set back distance could be significantly reduced with mitigation.

VicRoads will provide traffic mitigation via the Road Traffic Noise Policy for new arterial roads or freeways; however, there are a limited number of situations where expenditure of public monies on noise attenuation is not considered to be justified. Accordingly, VicRoads will not take action to protect existing or future development in the following circumstances:

- Where such land use is defined as a non-conforming use in the relevant planning scheme
- New buildings or subdivisions abutting any existing road under the control of VicRoads
- New buildings or subdivisions abutting any road zone shown on any planning scheme for a new road or a road widening
- Buildings or subdivisions abutting any proposed road zone where the planning approval for the subdivision, was obtained after the commencement of the exhibition period to set aside land for a future road in the relevant planning scheme

The consequence of this is that VicRoads will not provide mitigation for noise from the Western Freeway. The planning approval for any subdivision on the PSP is likely to be obtained at a date which would mean that the future residences are not entitled to noise mitigation.

10.1.2 Railway Noise and Vibration

The Melbourne Ballarat Railway Line is located at the south of the Rockbank site. Existing tracks are currently used by diesel passenger and freight.

It is understood that duplication (to 2 tracks) and electrification of the corridor within the next 15 years has been recommended. Upon duplication both tracks are proposed to be used by diesel passenger and freight and upon electrification they will accommodate electric trains and ongoing freight operations. Diesel trains through to Ballarat will continue to share these two tracks.

Detailed information about the current and future rail movements on the railway lines adjacent to the site are not currently available. As such, future rail noise levels due to railway activity have not been predicted. It is

understood that Melton Council is undertaking a noise assessment. This may provide useful information once completed.

An evaluation distance of 180 m from a train line is recommended³. The evaluation distance suggests that if a noise sensitive development is within the evaluation distance then detailed consideration of noise and vibration is required, however, if it is beyond this distance then rail noise and vibration impacts are expected to be minimal from a modern, well designed rail system and therefore detailed consideration is not required.

At this stage, it is recommended that residential buildings not be built within 180 m of the rail lines. Should there be a desire to build residential closer to the railway line then a detailed noise assessment is recommended. It is expected that with the use of noise barriers or non-noise sensitive buildings between the railway and the residential locations would result in the ability to build residential significantly closer to the rail lines.

10.2 Development opportunities and constraints

Based on the limitations due to unmitigated future road and rail noise the areas presented in **Figure 9** are proposed as not appropriate for residential development. A setback of 180 m from rail noise sources and 220 m from road noise sources is proposed for residential development. If mitigation is provided then the area illustrated could be significantly reduced. Options for mitigations are detailed in the following sections.

10.2.1 Road

There are opportunities to reduce the impact of road traffic noise on noise sensitive buildings. These include:

- Low noise pavements
- Noise Attenuation Barriers
- Specialised Design and treatment of residences
- Shielding from non-noise sensitive buildings.

10.2.2 Rail

Opportunities to reduce noise from rail include:

- To plan and design buildings in ways that reduce the railway noise and vibration impacts
- To consider other less sensitive land uses
- Zones for uses with lower sensitivity to railway noise and vibration e.g. industrial and commercial developments, car parking or recreational uses
- More sensitive uses are proposed then the layout and orientation of the buildings on the development site be designed to reduce railway noise and vibration impacts
- Beneficial use of existing site features, particularly the natural topography or existing buildings for shielding of airborne noise can be maximised through careful siting and layout of the buildings
- Within the building design itself, the layout and orientation of rooms should ensure, as far as practicable, that less sensitive rooms (e.g. bathroom, garage, laundry, kitchen and corridor) are oriented towards the railway in preference to living and sleeping areas
- Where possible, the shielding provided by natural physical elements (for example railway cuttings) or existing buildings such as garages and sheds should be maximised
- Earth mounds and bunds offer the potential for landscaping, which can reduce the visual impacts compared with other physical barriers such as fences and walls. However earth bunds require significant land for their construction relative to fences and walls, which may not be available on constrained sites. Vegetation and trees do not provide any substantial noise reduction, but can be an affective visual screen.

³ Guidelines for the assessment of noise from rail infrastructure, EPA South Australia, 2013

- Vibration isolation is not commonly provided for residential buildings, since it results in significantly higher construction costs. Nevertheless, in locations where buildings are very close to, or built over railway infrastructure, vibration isolation of the building structure may be necessary to achieve the structure-borne noise and vibration goals.

11. Conclusion and recommendations

11.1 Conclusions

11.1.1 Hydrology assessment

No major or minor watercourses are found within the PSP; however, a gully runs through the site and stormwater management will need to be considered. The PSP area is affected by the 1% annual exceedance probability (AEP) flood level, indicating a moderate flood risk. Flood risk should be investigated as part of the design process.

11.1.2 Hydrogeological assessment

Based on the regional hydrogeological information and bore data in the vicinity of the site, the unconfined aquifer is associated with the Newer Volcanics basalt.

Over the majority of the site there does not appear to be any significant hydrogeological constraints which would render the land unsuitable for development. However, in the vicinity of topographical depressions (e.g. features identified in the GDE Atlas – see **Figure 7.2**) it is likely shallow groundwater tables will exist. The following issues would need to be considered however, in the planning and design of any development:

- The shallow water table may cause groundwater inflow to excavations
- The saline nature of the groundwater may require careful monitoring if dewatering or extraction was required

Opportunities for groundwater use include extraction for garden watering and irrigation of parks and ovals, depending on the precise nature of the salinity of the groundwater and potential to shandy with less saline sources.

11.1.3 Geotechnical assessment

Based on the available geological information, it is anticipated that the site is underlain by highly reactive residual clay overlying basalt rock. An indicative site classification of Class “H2 to E” has been assessed in accordance with Table D1, AS2870-1996.

Key geotechnical issues associated with development of the site include the depth and reactivity of the basaltic clay in terms of its influence on site classification, foundation selection, differential settlement, subgrade performance and excavations. Fill material, if present, is expected to be uncontrolled and may not be suitable for development in its present state. Areas subject to poor drainage may comprise soft material which provides low bearing capacity for foundations.

11.1.4 Contamination assessment

Based on the information gathered during the Stage 1 & 2 assessments, the following conclusions can be made in relation to the Paynes Road PSP area:

- The site history / desktop assessment found that the site has a long history of agricultural land uses with much of the areas remaining under cultivation to the present day
- Based on the available information including a site walkover and site history assessment, the following potential sources of contamination have been identified:
 - Highly localised areas of potential contamination associated with frequently encountered land uses. These include potential contamination hotspots associated with uses such as stockyards and general farm premises. These hotspots are likely to be localised to areas such as fuel tanks, chemical storage areas and similar

- Highly localised areas of potential contamination associated with stockpiles and general dumped materials. In these locations contamination is likely to be localised to stockpiles themselves and in some instances shallow underlying soils
- Diffuse but low level sources of contamination associated with the widespread application of agricultural chemicals on farmland as well as orchards and plant nurseries. These chemicals may include pesticides, herbicides, fungicides and fertilizers
- A number of off-site sources of contamination have been identified in the vicinity of the PSP site. Based on the nature of the site uses, distances, as well as the environmental setting of the site (hydrological, hydrogeological and geological conditions), minimal risk is posed by the off-site locations

Based on the information obtained from the sources described in this report, with the exception of highly localised areas of potential contamination associated with current and/or former land uses identified above, there do not appear to be any significant risks from a site contamination perspective which would render the land unsuitable for residential or other sensitive land uses. Any areas of localised contamination are likely to be able to be effectively managed or remediated during any future site development.

11.1.5 Noise and vibration

Jacobs has identified potential noise and vibration sources which are at risk of adversely impacting on the proposed residential development area. These sources include road traffic and railway noise and vibration.

Indicative setback distances from existing roads and railways to the Paynes Road PSP area (potential residential area) have been proposed to achieve a low risk of exceeding noise limits at future potential residents. Provision of mitigation to road traffic and railway noise sources, will significantly reduce these setback distances.

11.2 Recommendations

Jacobs understands that the proposed future use of the site is a broad ranging urban development. Since specific future land uses within the PSP boundary are yet to be confirmed, this assessment has been completed based on the assumption that residential or other sensitive uses will be the probable land future uses across the study area.

The following further works are recommended, including recommended timings:

- Further drilling and collection of soil samples for the purposes of assessing the geotechnical soil properties for building foundation and road design. *Timing: This task should be undertaken on a site-by-site basis during future development as part of the building permit application process*
- Drilling and installation of groundwater monitoring wells to determine the depth to groundwater as well as aquifer hydraulics testing to determine aquifer properties. *Timing: It is recommended that this task be undertaken to coincide with the cessation or scaling down of current site operations across the PSP and prior to the commencement of the proposed development and construction works*
- Removal of other potentially contaminating infrastructure (e.g. septic tanks and above ground storage tanks) followed by soil validation. *Timing: This task should be undertaken on a site-by-site basis during future site development*
- Classification and appropriate removal (if required) of various stockpiles and dumped materials observed at numerous sites across the study area. This includes subsequent validation following removal. It is noted that sampling of some stockpiles of soil observed may indicate that the material is suitable for re-use as part of future development and as such removal may not be required in all instances. *Timing: This task should be undertaken on a site-by-site basis during future site development*
- Further limited assessment of the potential for contamination associated with diffuse but low level sources of contamination. *Timing: This is a low priority. It is unlikely that the broad application of agricultural chemicals has occurred / has impacted soils across the PSP, based on broadacre sampling results reported from the adjacent PSP area (PSP1099 - Rockbank PSP area) (SKM, 2014)*

- Council may wish to consider measurements of existing noise levels on the PSP area, specifically in the vicinity of the existing rail lines and roads. Jacobs considers an assessment of the existing background noise levels to be best practice to gain an understanding of the local environment and possible impacts on planned land uses. *Timing: It is recommended that this is undertaken in the near future to identify the extent of impact of these sources*

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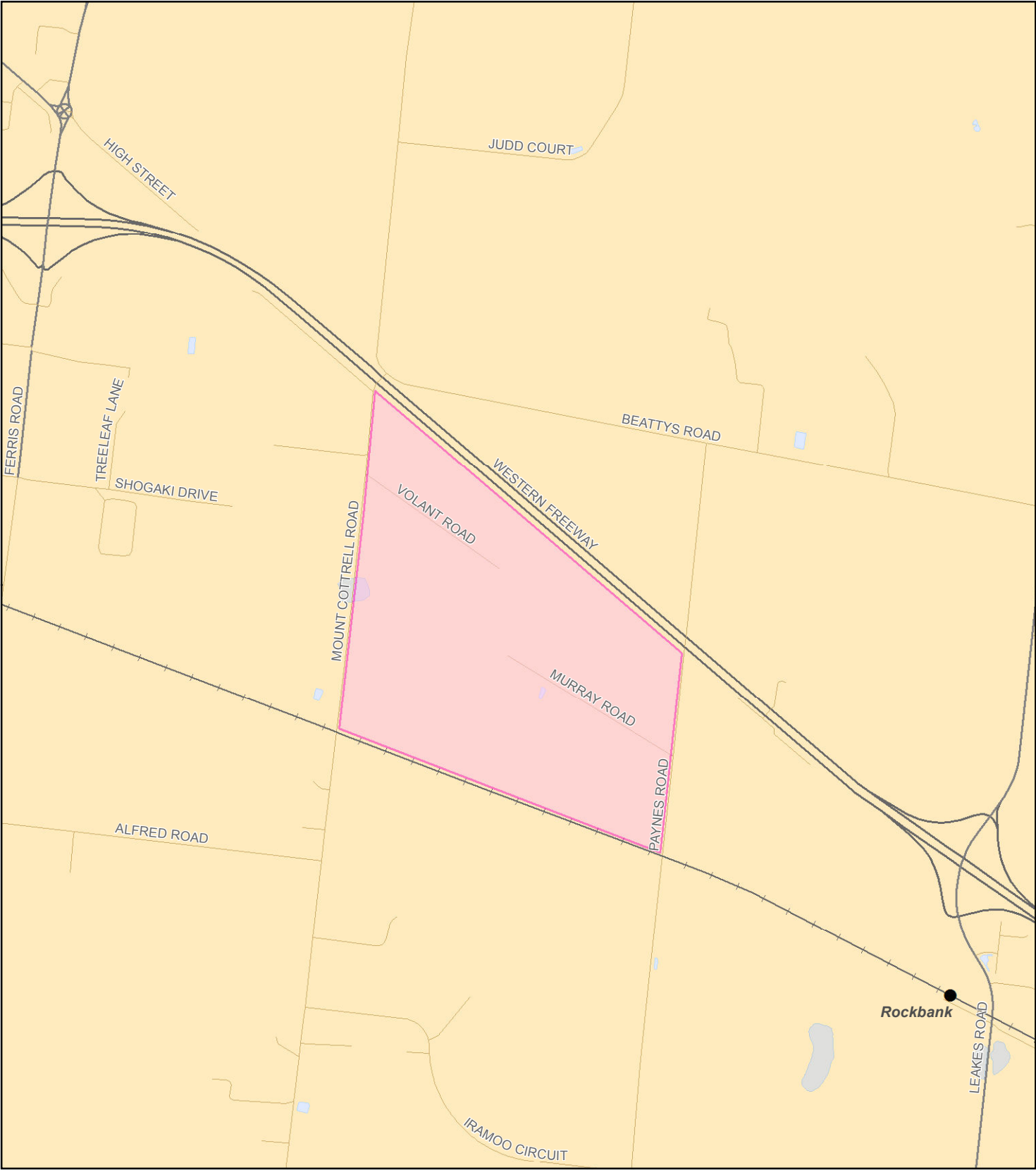
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Figures

[Figure 1 - Site Location Plan]



[PSP 31.2 Toolern Part C : Paynes Road - Land Capability Assessment | VW07633]

LEGEND

<p>Precinct Structure Plan Boundary</p> <p>Hydrology</p> <p>Watercourse</p> <p>Waterbody</p>	<p>Infrastructure</p> <p>Freeway</p> <p>Major Roads</p> <p>Local Road</p> <p>Railway</p> <p>Railway Station</p>
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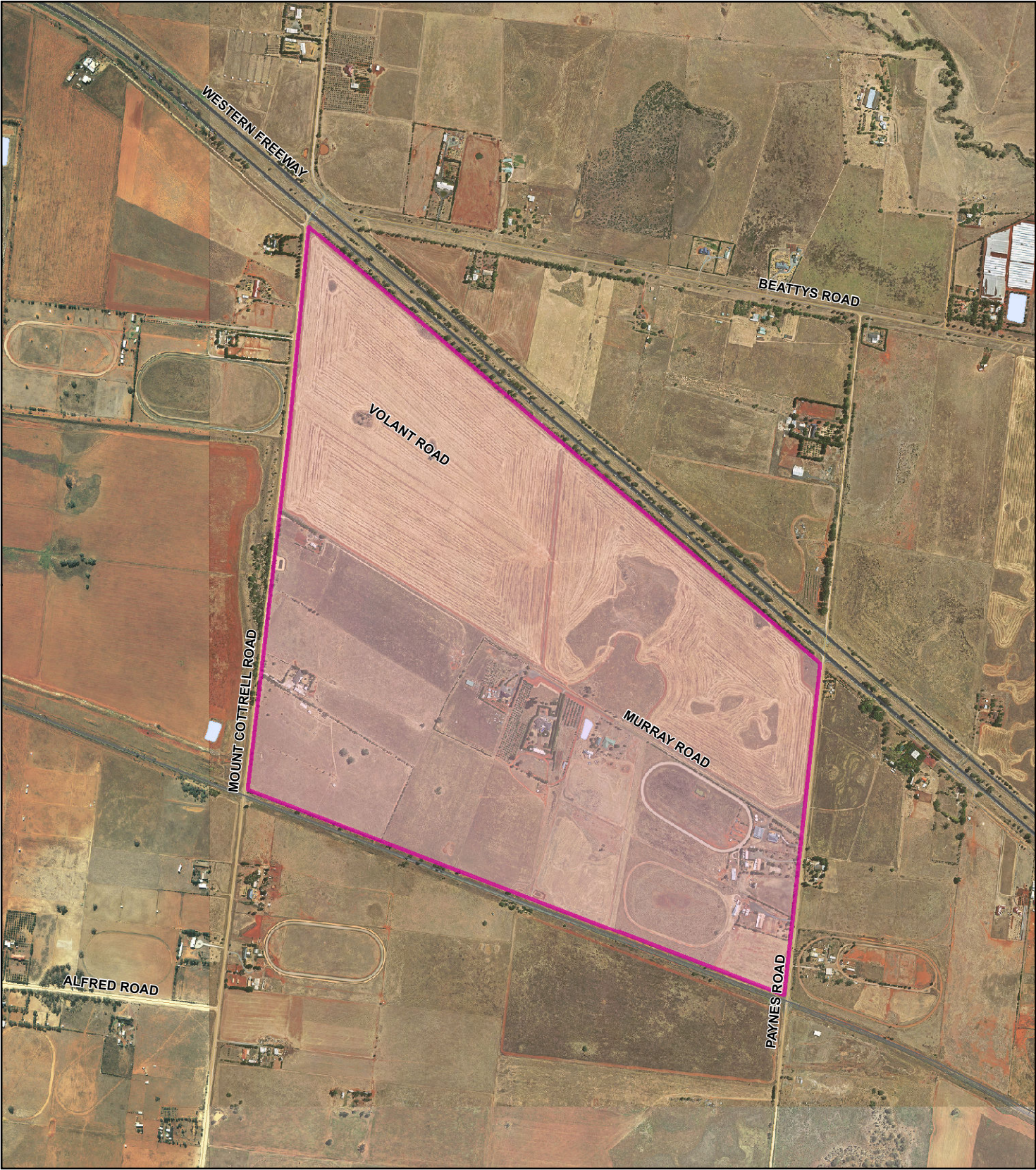
MPA JACOBS
METROPOLITAN PLANNING AUTHORITY

DATA SOURCES
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[Figure 2 - Site Layout Plan]



[PSP 31.2 Toolern Part C : Paynes Road - Land Capability Assessment | VW07633]

LEGEND

Precinct Structure Plan Boundary	Infrastructure
Hydrology	Freeway
Watercourse	Major Roads
Waterbody	Local Road
	Railway
	Railway Station

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LEGEND

 Precinct Structure Plan Boundary	Infrastructure
 Freeway	 Major Roads
 Watercourse	 Local Road
 Waterbody	<div style="width: 0; height: 0; border-left: 5px solid transparent; border-right: 5px solid transparent; border-bottom: 10px solid black; margin: 0 auto;"></div> Railway
Geology	
 Igneous (Extrusive)	
 Sedimentary (Non-Marine (Alluvial))	






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[GDA 94 | MGA Zone 55]

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[Figure 4 - Planning Zones]



[PSP 31.2 Toolern Part C : Paynes Road - Land Capability Assessment | VW07633]

LEGEND

Precinct Structure Plan Boundary

Planning Zones

- PUZ4 - Public Use Zone
- RCZ - Rural Conservation
- RDZ1 - Road Zone Category 1
- UFZ - Urban Floodway
- UGZ - Urban Growth

Hydrology

- Watercourse
- Waterbody

Infrastructure

- Freeway
- Major Roads
- Local Road
- Railway

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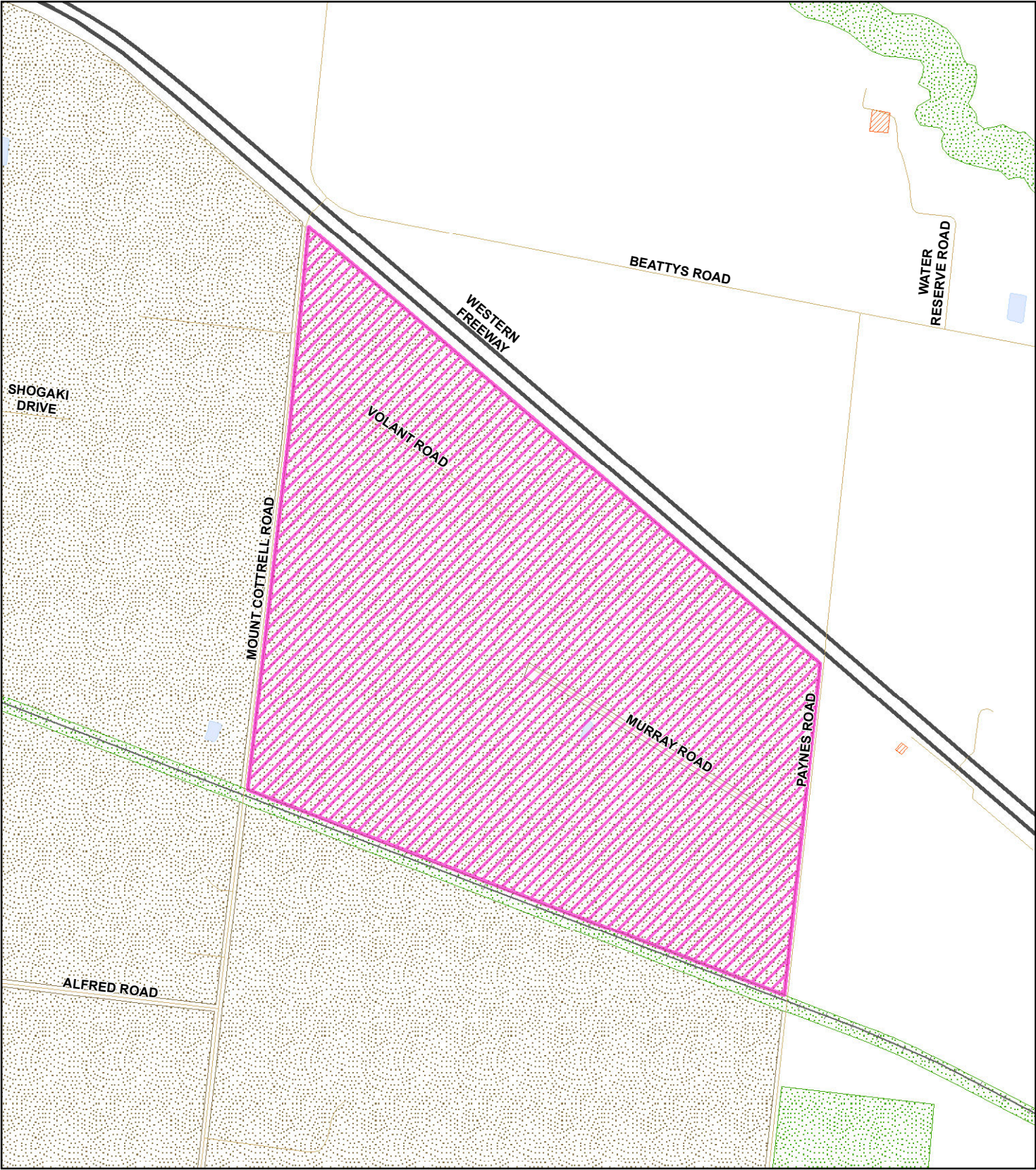
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[Figure 5 - Planning Overlay]



[PSP 31.2 Toolern Part C : Paynes Road - Land Capability Assessment | VW07633]

LEGEND

Precinct Structure Plan Boundary	Hydrology
Planning Overlay	Watercourse
DCPO	Waterbody
ESO	Infrastructure
HO	Freeway
	Major Roads
	Local Road
	Railway

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MELTON
ROCKBANK
MELBOURNE

DATA SOURCES
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[Figure 6A - Paynes Road - 1962]



[PSP 31.2 Toolern Part C : Paynes Road - Land Capability Assessment | VW07633]

LEGEND

Precinct Structure Plan Boundary

Freeway

Major Roads

Local Road

Railway

Infrastructure

Freeway

Major Roads

Local Road

Railway

0

400

Meters

[GDA 94 | MGA Zone 55]

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JACOBS

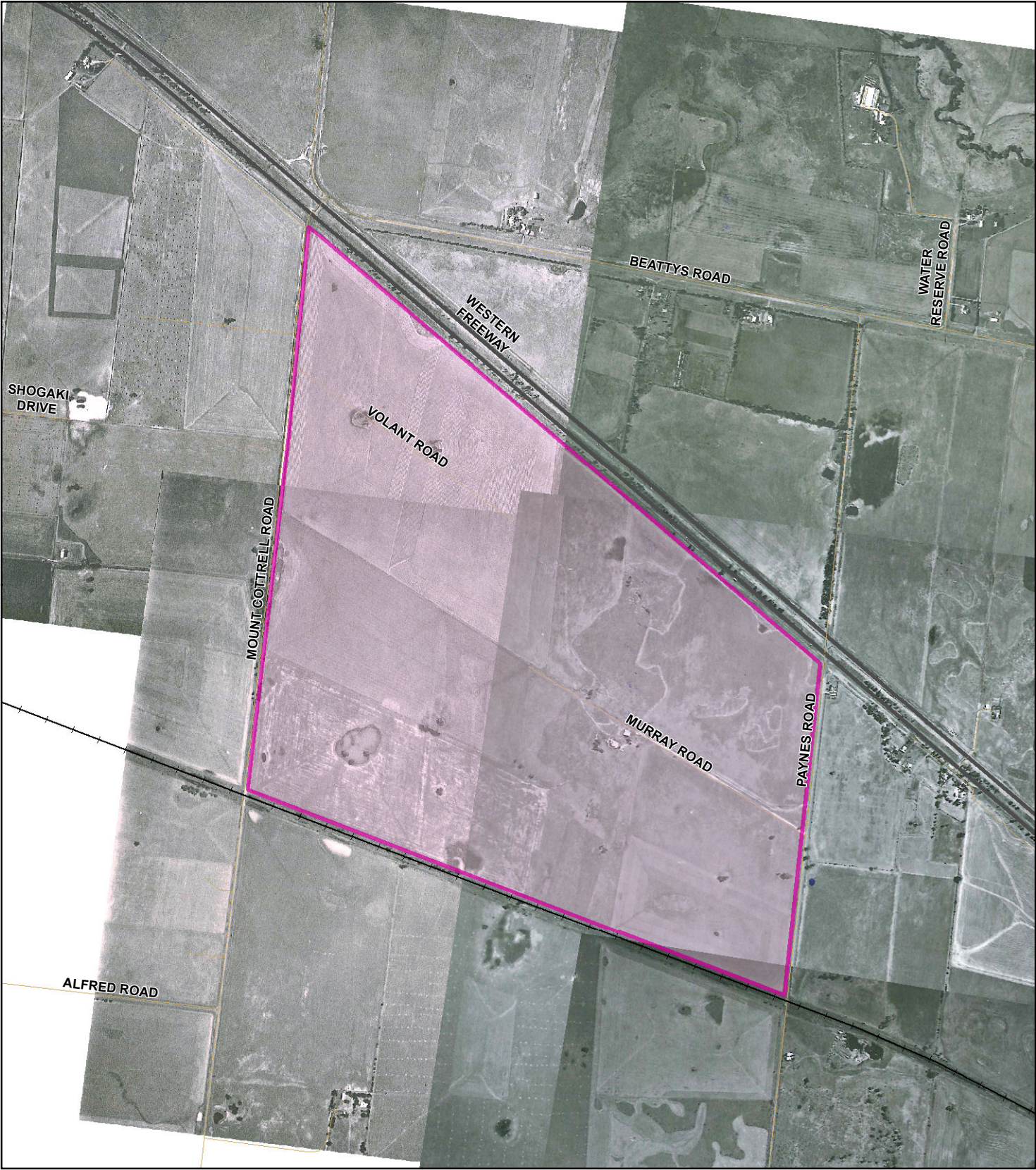
DATA SOURCES
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29 Jul 2014 | Path: I:\VWES\Projects\VW07633\Technical\Spatial\ArcGIS\Fig06_Historical\maquery.mxd


[Figure 6B - Paynes Road - 1970]





[PSP 31.2 Toolern Part C : Paynes Road - Land Capability Assessment | VW07633]


LEGEND

 Precinct Structure Plan Boundary


 Freeway


 Major Roads


 Local Road


 Railway


Infrastructure


 Freeway

 Major Roads

 Local Road

 Railway


0 400
Meters
[GDA 94 | MGA Zone 55]
1:15,000



MELTON
ROCKBANK
MELBOURNE

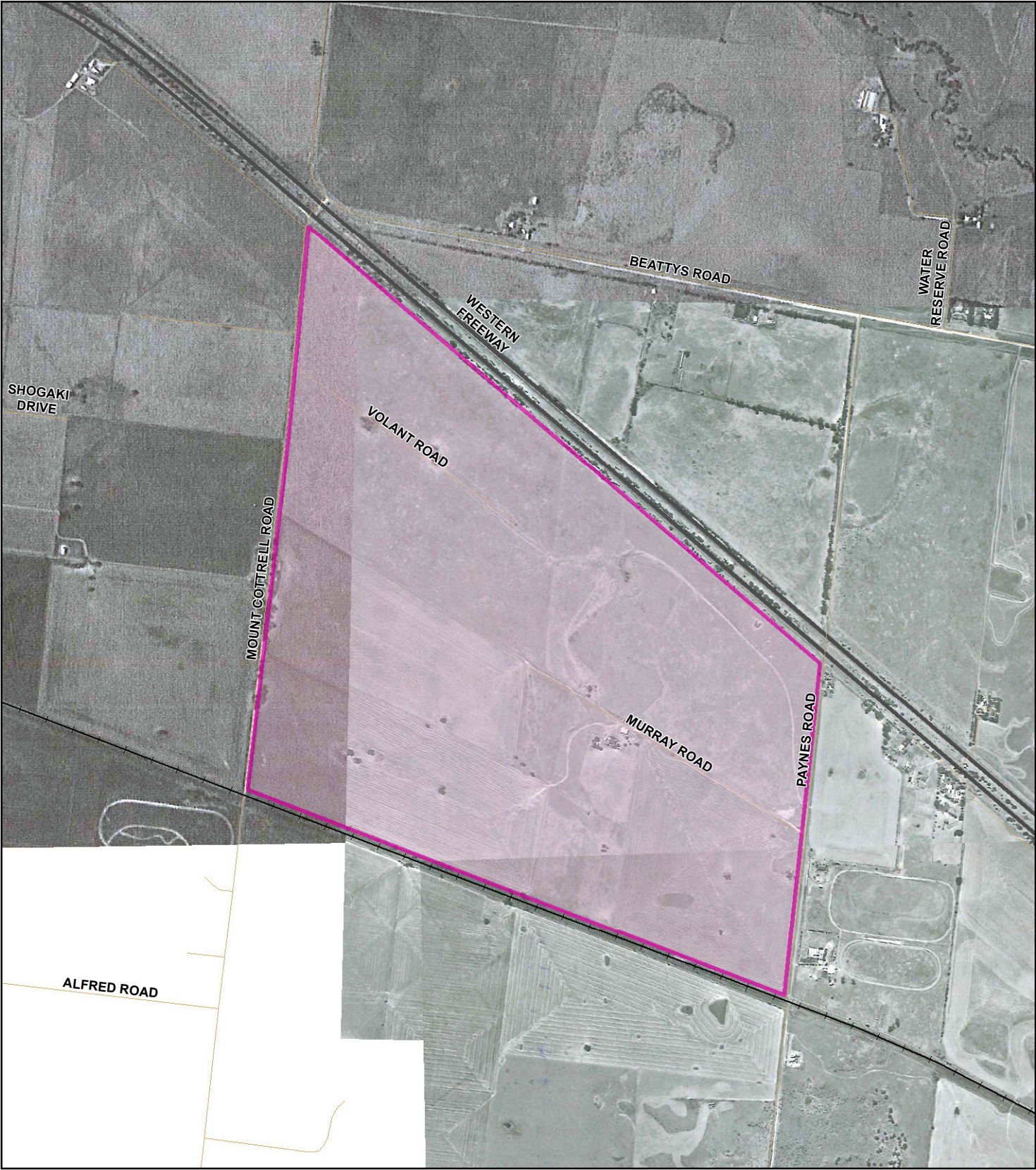
DATA SOURCES
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29 Jul 2014 | Path: I:\VWES\Projects\VW07633\Technical\Spatial\ArcGIS\Fig06_Historical\mapqery.mxd


[Figure 6C - Paynes Road - 1982]





[PSP 31.2 Toolern Part C : Paynes Road - Land Capability Assessment | VW07633]


LEGEND

 Precinct Structure Plan Boundary


 Freeway


 Major Roads


 Local Road

 Railway

Infrastructure


0 400
Meters
[GDA 94 | MGA Zone 55]
1:15,000





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[Figure 6D - Paynes Road - 1991]



[PSP 31.2 Toolern Part C : Paynes Road - Land Capability Assessment | VW07633]

LEGEND

Precinct Structure Plan Boundary

Infrastructure

- Freeway
- Major Roads
- Local Road
- Railway

0 400
Meters
[GDA 94 | MGA Zone 55]
1:15,000

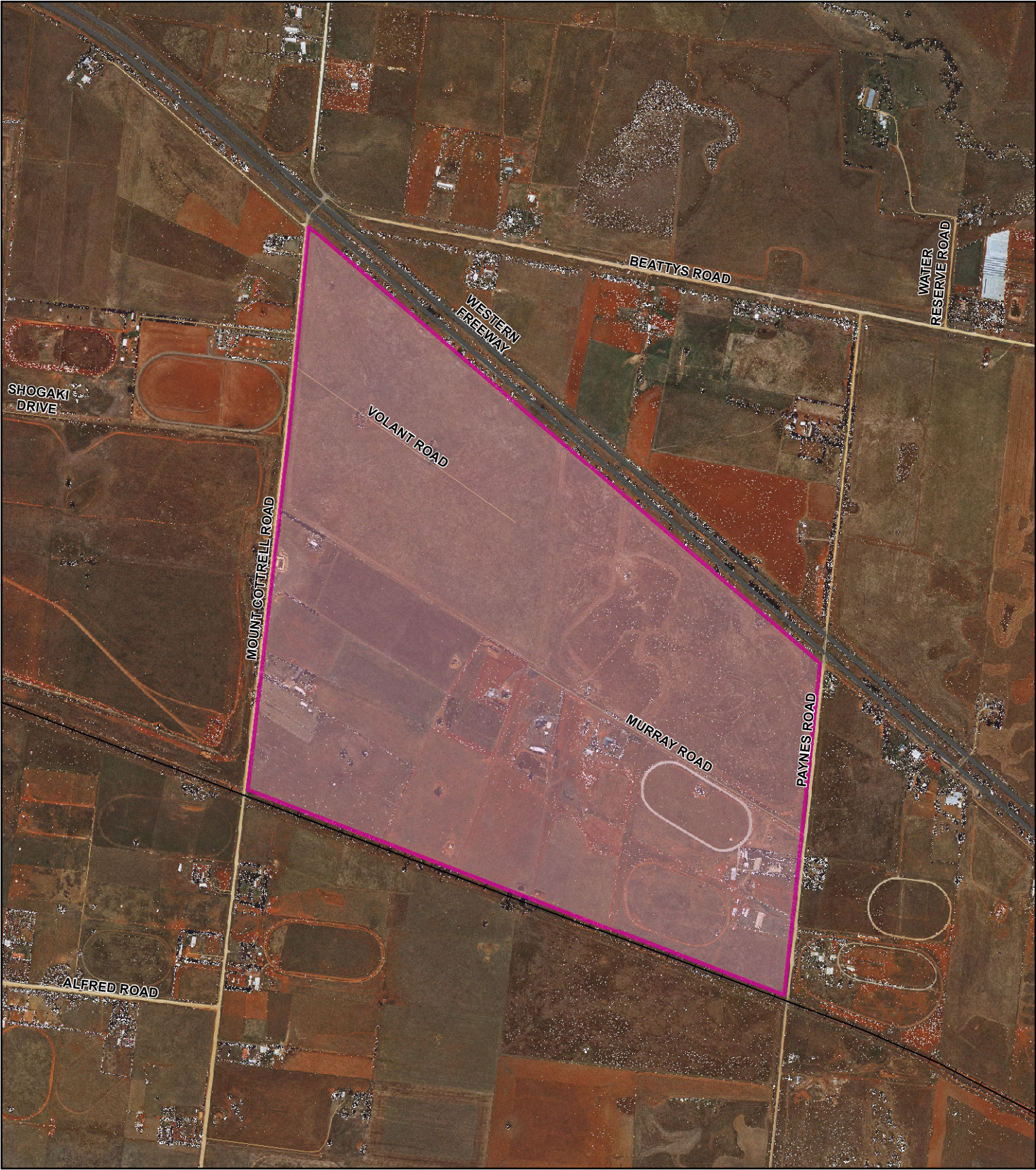
MPA **JACOBS**
METROPOLITAN PLANNING AUTHORITY

DATA SOURCES
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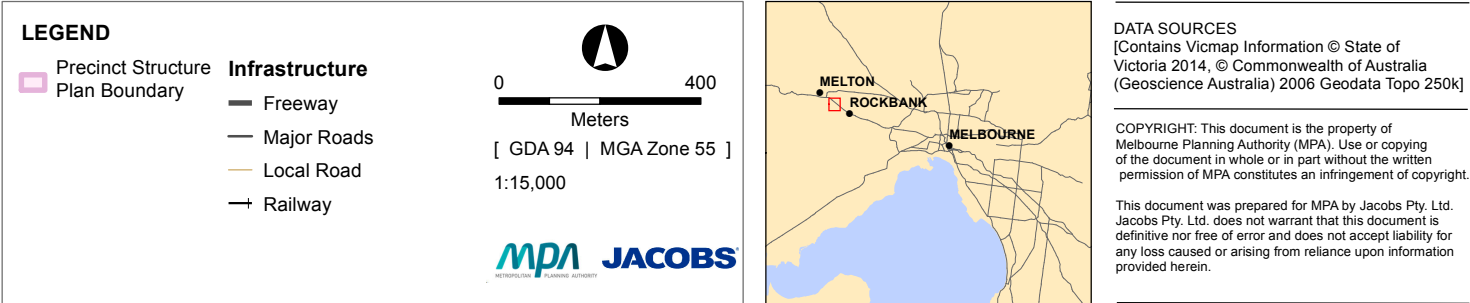
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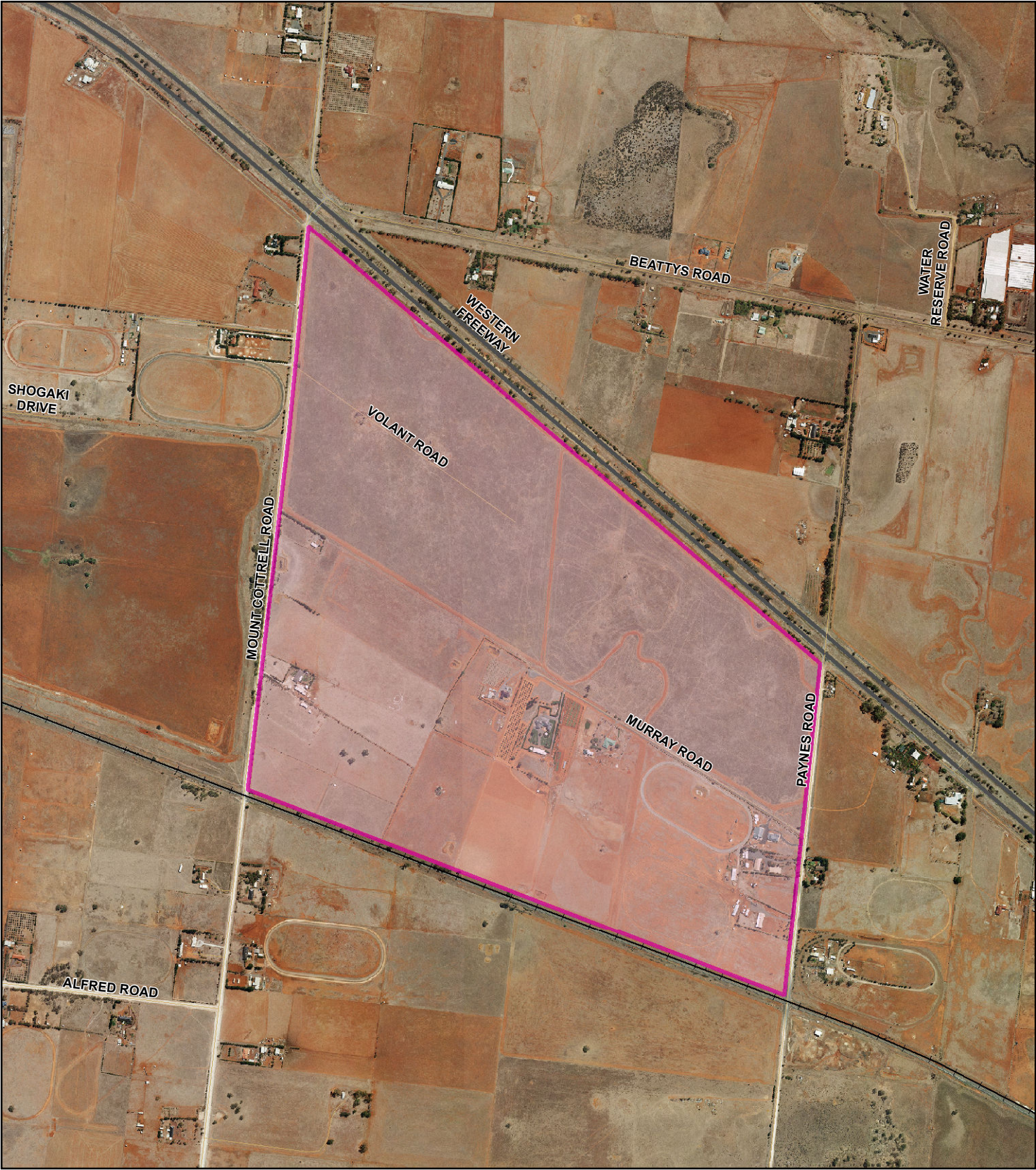
[Figure 6E - Paynes Road - 2001]



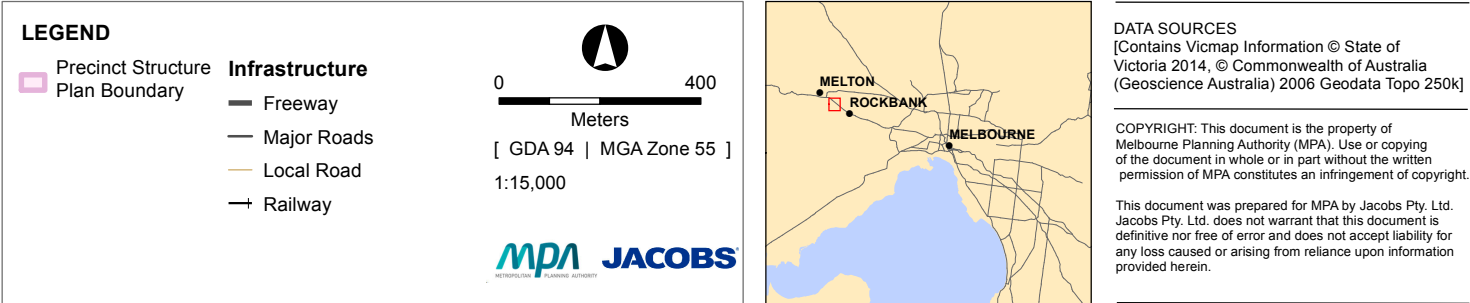
[PSP 31.2 Toolern Part C : Paynes Road - Land Capability Assessment | VW07633]



[Figure 6F - Paynes Road - 2007]



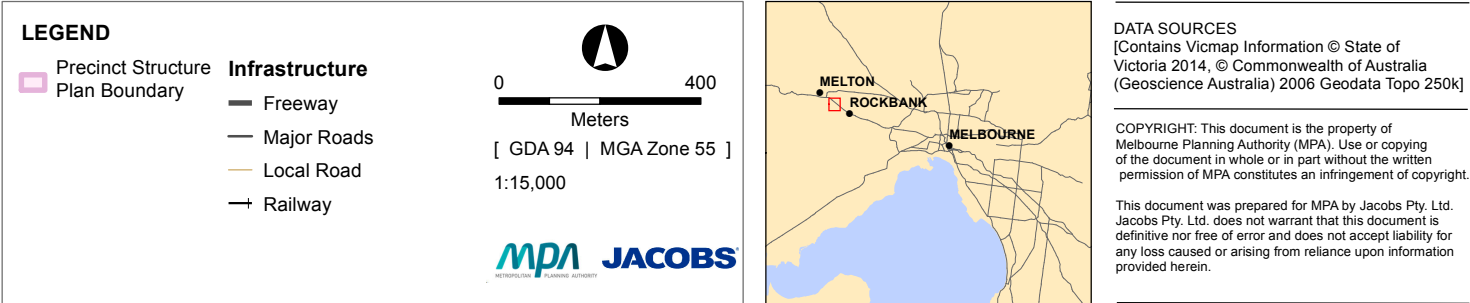
[PSP 31.2 Toolern Part C : Paynes Road - Land Capability Assessment | VW07633]



[Figure 6G - Paynes Road - 2013]



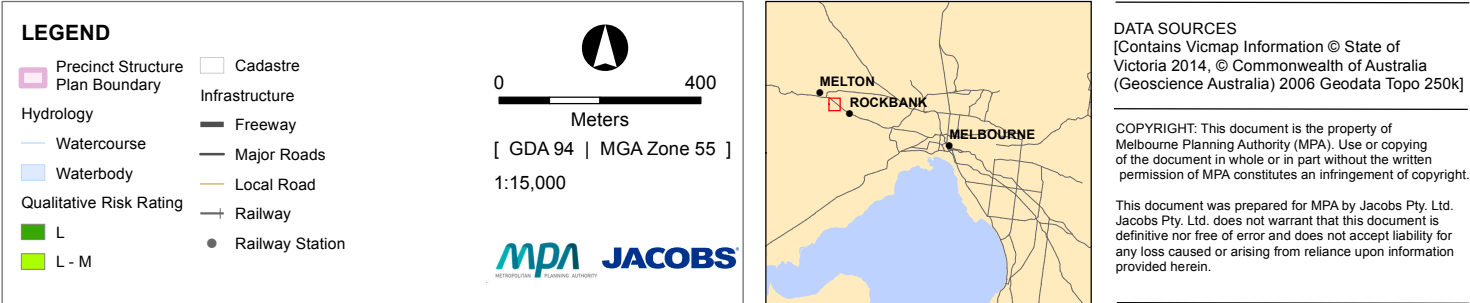
[PSP 31.2 Toolern Part C : Paynes Road - Land Capability Assessment | VW07633]



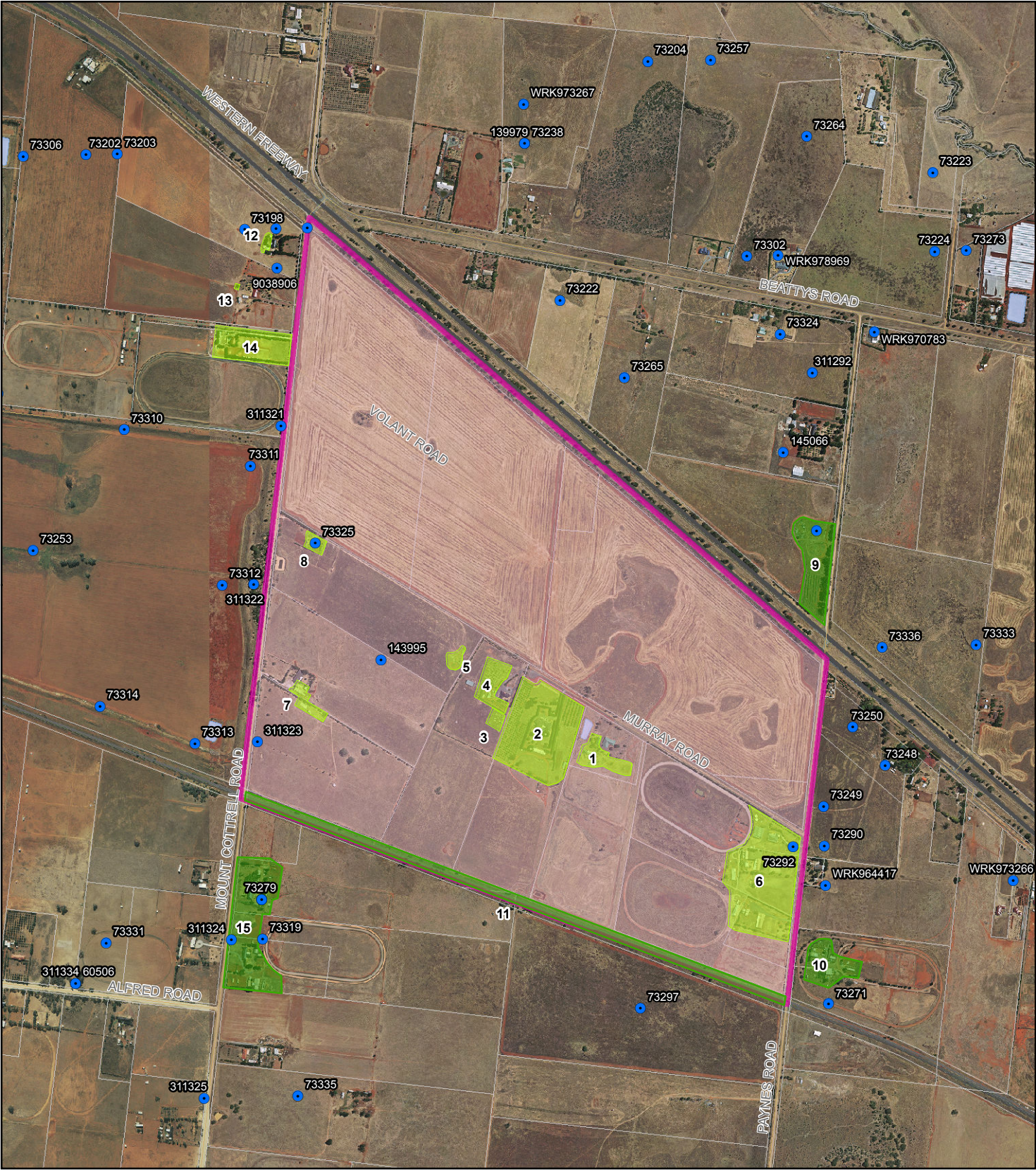
[Figure 7 - PSP Site Qualitative Risk Assessment Overview]



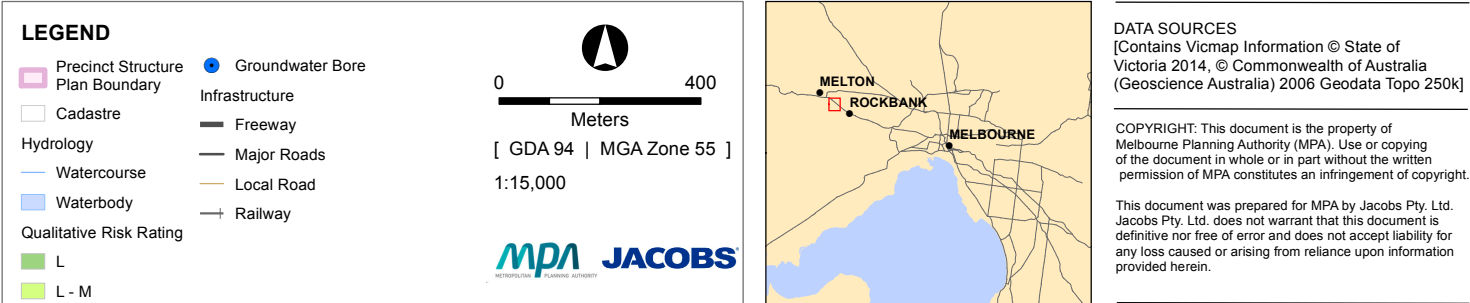
[PSP 31.2 Toolern Part C : Paynes Road - Land Capability Assessment | VW07633]



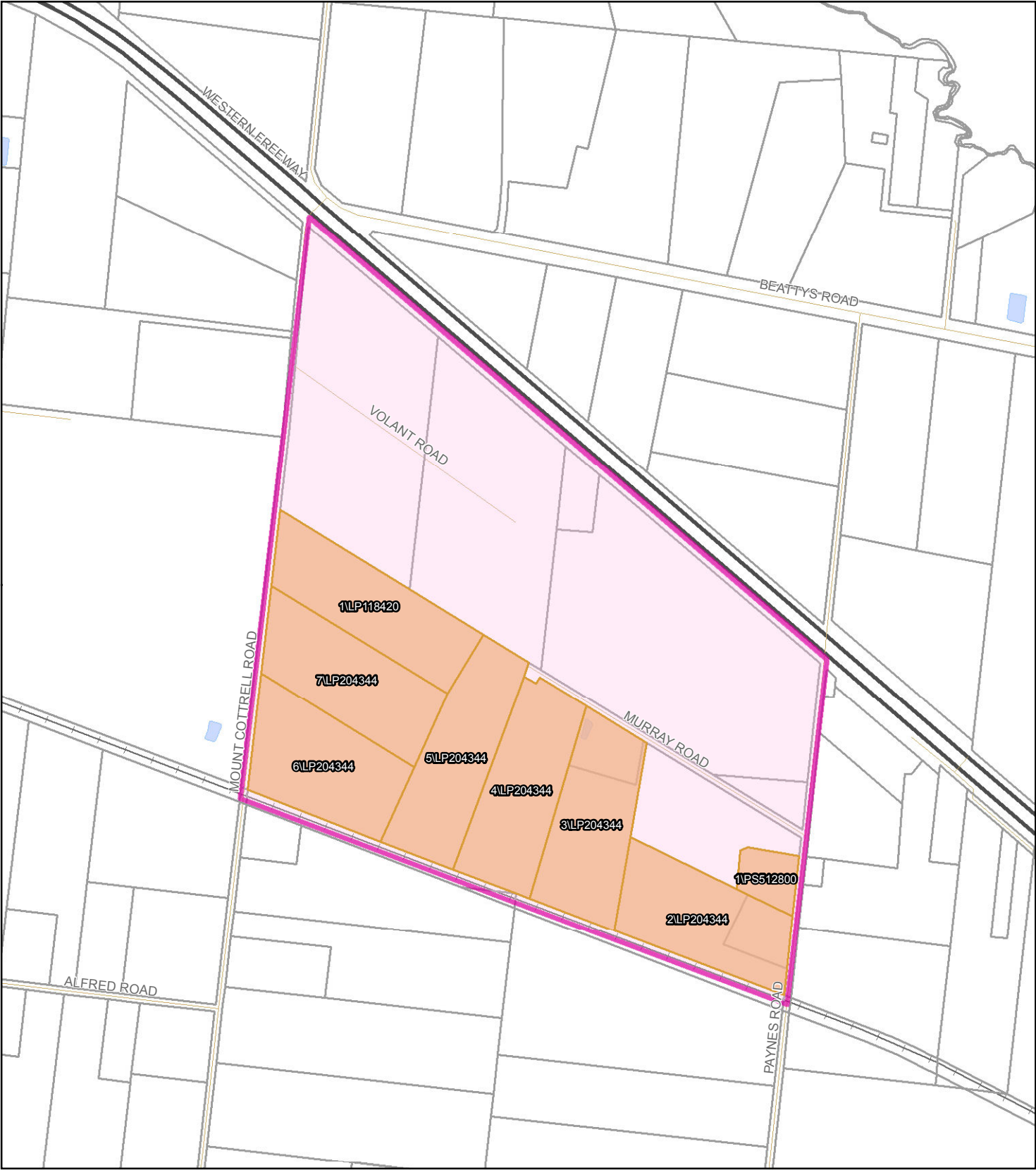
[Figure 7A - PSP Site Qualitative Risk Assessment and Groundwater Bores]



[PSP 31.2 Toolern Part C : Paynes Road - Land Capability Assessment | VW07633]



[Figure 8 - Title Documents Reviewed]



[PSP 31.2 Toolern Part C : Paynes Road - Land Capability Assessment | VW07633]

LEGEND

Precinct Structure Plan Boundary	Infrastructure
Title Information	Freeway
Cadastre	Major Roads
Hydrology	Local Road
Watercourse	Railway
Waterbody	

0 400
Meters
[GDA 94 | MGA Zone 55]
1:15,000

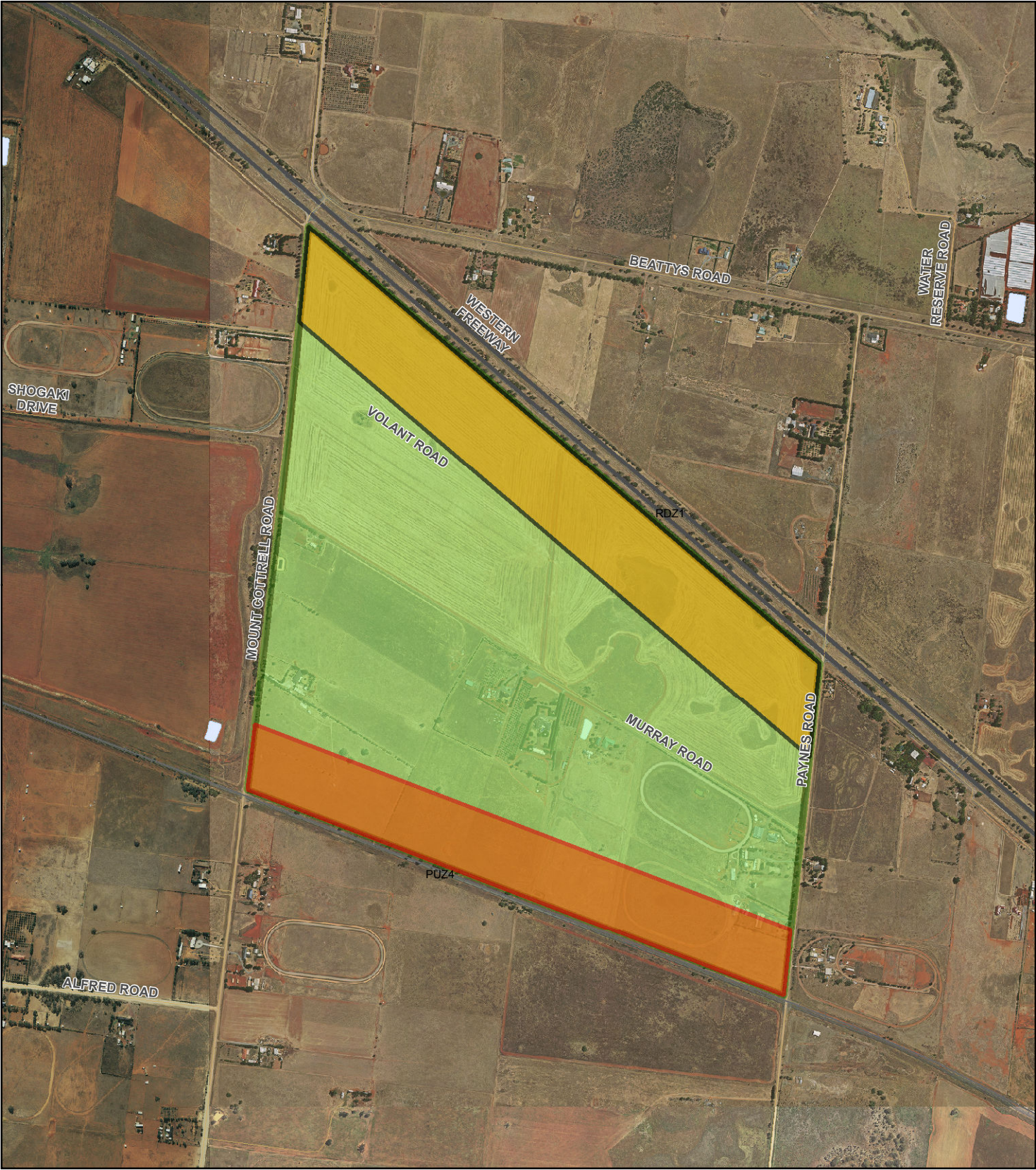
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[Figure 9 - Recommended buffer distances from unmitigated noise and vibration sources]



[PSP 31.2 Toolern Part C : Paynes Road - Land Capability Assessment | VW07633]

LEGEND

Precinct Structure

Plan Boundary

Rail Setback 180m

Road Setback 220m

Hydrology

Watercourse

Waterbody

Infrastructure

Freeway

Major Roads

Local Road

Railway

0

400

Meters

[GDA 94 | MGA Zone 55]

1:15,000

MPA

MELBOURNE PLANNING AUTHORITY

JACOBS

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11 Sep 2014 | Path: I:\VWES\Projects\VW07633\Technical\Spatial\ArcGIS\Fig09_Noise_Vibration.mxd

Appendix A. SEPP information

A.1 Land SEPP

A.1.1 Land use categories

The following land use categories are defined in Clause 9(1) of the Land SEPP:

- *“Sensitive uses: consisting of land used for residential use, a child care centre, pre-school, or primary school. A sensitive use may occur in an area of high density (where development makes maximum use of available land space and there is minimal access to soil) or in Other low density areas (where there is generally substantial access to soil)”;*
- *“Agricultural: consisting of rural areas involved in agricultural or horticultural practices”*
- *“Parks and Gardens: consisting of parks and forested area as defined in any Victorian or Commonwealth legislation or subordinate legislation, or any regions designated by the Authority or Department of Natural Resources and Environment”*
- *“Recreation / Open Space: consisting of general open space and public recreation areas”;*
- *“Commercial: consisting of a range of commercial and business activities”; and*
- *“Industrial: consisting of utilities and a range of industrial activities”.*

We understand that the end use of the site is yet to be determined and may comprise one or more of the above land uses.

A.1.2 Beneficial uses of land to be protected

The Land SEPP (2002) states that the following beneficial uses must be protected for the following land uses:

Table A.1 : Beneficial uses of land

Land Use/ Beneficial Use	Parks & Reserves	Agricultural	Sensitive Use		Recreation / Open Space	Commercial	Industrial
			High Density	Other			
Maintenance of Ecosystems							
• <i>Natural Ecosystems</i>	ü						
• <i>Modified Ecosystems</i>	ü	ü		ü	ü		
• <i>Highly Modified Ecosystems</i>		ü	ü	ü	ü	ü	ü
Human Health	ü	ü	ü	ü	ü	ü	ü
Buildings and Structures	ü	ü	ü	ü	ü	ü	ü
Aesthetics	ü		ü	ü	ü	ü	
Production of food, flora & fibre	ü	ü		ü			

A.2 Groundwater SEPP

A.2.1 Beneficial uses of groundwater to be protected

Table A.2 : Beneficial uses of groundwater

Segment / Beneficial Use	Segment (TDS)				
	Segment A1 (0-500 mg/L)	Segment A2 (501-1000 mg/L)	Segment B (1001-3500 mg/L)	Segment C (3501-13000 mg/L)	Segment D (> 13,000 mg/L)
Maintenance of Ecosystems	ü	ü	ü	ü	ü
Potable Water Supply					
<i>a) Desirable</i>	ü				
<i>b) Acceptable</i>		ü			
Potable Mineral Water Supply	ü	ü	ü		
Agricultural, parks & gardens	ü	ü	ü		
Stock Watering	ü	ü	ü	ü	
Industrial Water Use	ü	ü	ü	ü	ü
Primary Contact Recreation	ü	ü	ü	ü	
Buildings and Structures	ü	ü	ü	ü	ü

Appendix B. Certificate of title information

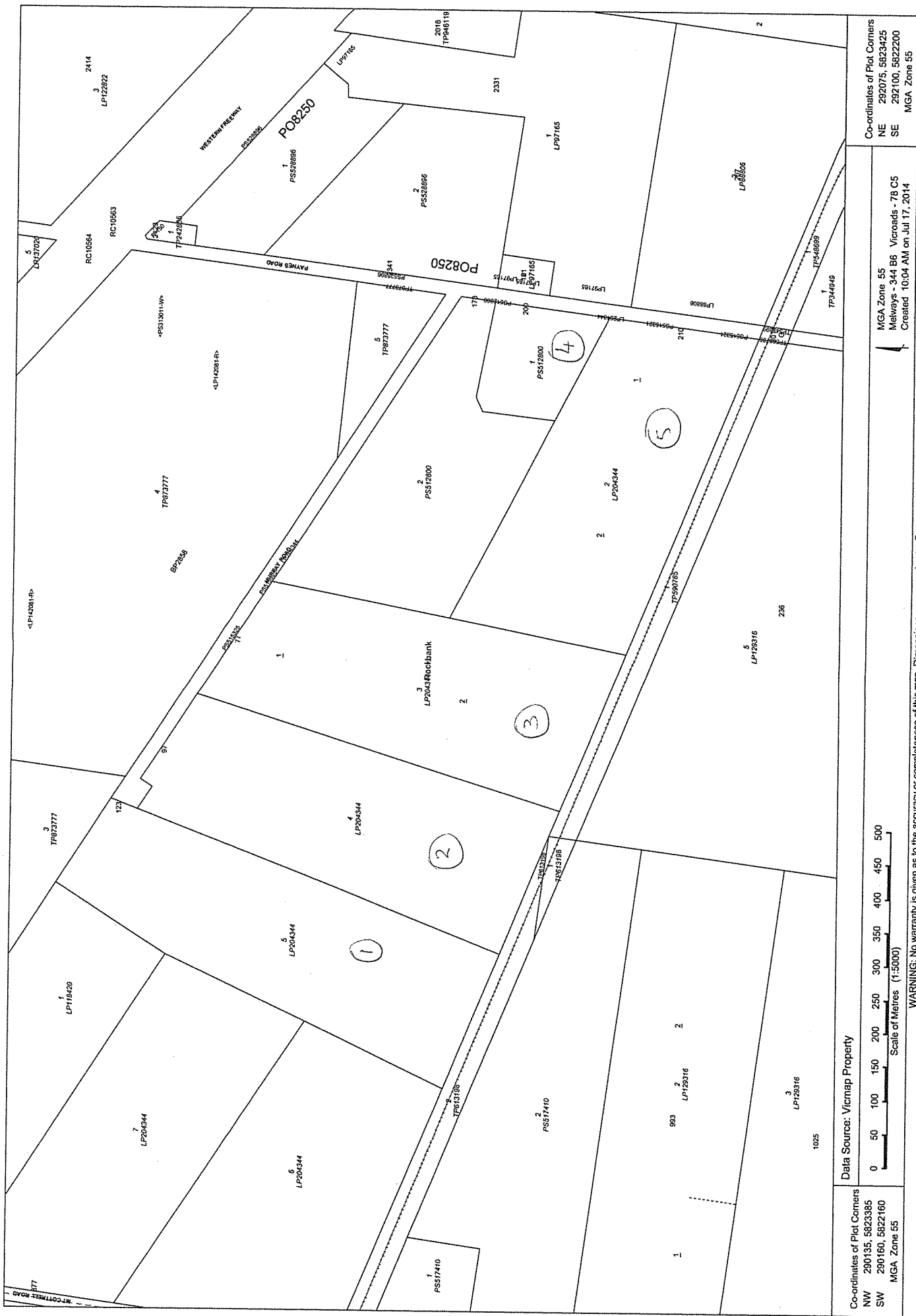
B.1 Summary of title information

Refer to **Figure 8** for land parcel locations.

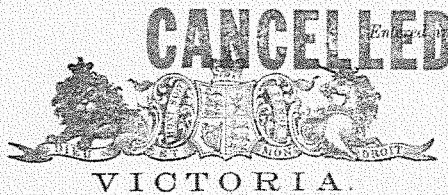
Parcel	No.	AOI	Volume Folio	Registered Proprietors	Date	Status
5\LP204344	1	4 & 3	V.9829 F.171	Milco & Lence Gosev	10.01.1997	Current
			V.9156 F.475	Catherine Greateorex	25.08.1988	History
				Catherine Greateorex	09.08.1976	History
			V.3454 F.696	Catherine Greateorex	28.06.1968	History
				Thomas Greateorex (Manufacturer)	18.02.1966	History
				Ellen Volant & Thomas Greateorex (Manufacturer)	08.02.1957	History
				Stephen Volant (Farmer)	14.05.1915	History
				Thomas Robinson (Farmer)	13.10.1910	History
4\LP204344	2	2	V.9829 F.170	Koraltay & Bilgen Doluner	12.05.1995	Current
				Catherine Greateorex	25.08.1988	History
			V.9156 F.475	Catherine Greateorex	09.08.1976	History
			V.3454 F.696	Catherine Greateorex	28.06.1968	History
				Thomas Greateorex (Manufacturer)	18.02.1966	History
				Ellen Volant & Thomas Greateorex (Manufacturer)	08.02.1957	History
				Stephen Volant (Farmer)	14.05.1915	History
				Thomas Robinson (Farmer)	13.10.1910	History
3\LP204344	3	1	V.9829 F.169	Eric & Jane Koutroubas	19.03.1991	Current
			V.9156 F.475	Catherine Greateorex	25.08.1988	History
				Catherine Greateorex	09.08.1976	History
			V.3454 F.696	Catherine Greateorex	28.06.1968	History
				Thomas Greateorex (Manufacturer)	18.02.1966	History
				Ellen Volant & Thomas Greateorex (Manufacturer)	08.02.1957	History
				Stephen Volant (Farmer)	14.05.1915	History
				Thomas Robinson (Farmer)	13.10.1910	History
1\PS512800	4	6	V.10850 F.362	The Free Church Of Tonga	05.07.2010	Current
				Eneasi Teaupa	14.12.2005	History
				Joseph & Thelma Aquilina	05.01.2005	History
			V.9829 F.167	Joseph & Thelma Aquilina	29.11.1988	History
				Catherine Greateorex	25.08.1988	History
			V.9156 F.475	Catherine Greateorex	09.08.1976	History
			V.3454 F.696	Catherine Greateorex	28.06.1968	History
				Thomas Greateorex (Manufacturer)	18.02.1966	History

Parcel	No.	AOI	Volume Folio	Registered Proprietors	Date	Status
				Ellen Volant & Thomas Greatorex (Manufacturer)	08.02.1957	History
				Stephen Volant (Farmer)	14.05.1915	History
				Thomas Robinson (Farmer)	13.10.1910	History
2\LP204344	5	6	V.9829 F.168	George & Connie Aquilina	22.11.1988	Current
				Catherine Greatorex	25.08.1988	History
			V.9156 F.475	Catherine Greatorex	09.08.1976	History
			V.3454 F.696	Catherine Greatorex	28.06.1968	History
				Thomas Greatorex (Manufacturer)	18.02.1966	History
				Ellen Volant & Thomas Greatorex (Manufacturer)	08.02.1957	History
				Stephen Volant (Farmer)	14.05.1915	History
				Thomas Robinson (Farmer)	13.10.1910	History

B.2 Copies of title documents



WARNING: No warranty is given as to the accuracy or completeness of this map. Dimensions are approximate. For property dimensions, undertake a Title search.



Vol 3454 Vol 690696

Certificate of Title,

UNDER THE "TRANSFER OF LAND ACT 1890."

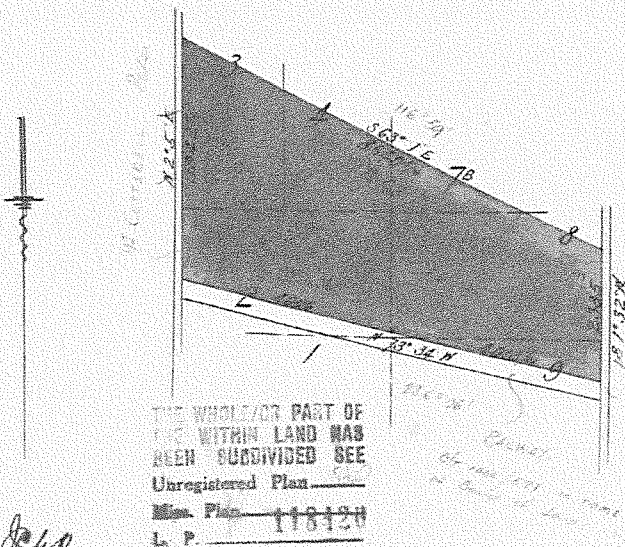
Mr Thomas Robinson of Melton Farmer is

now the proprietor of an Estate in Fee-simple, subject to the Encumbrances notified hereunder in All that piece of Land, delineated and coloured Red on the map in the margin containing Two hundred and forty three acres and thirty perches or thereabouts being part of Crown allotments two, three, four, seventh eight and nine Section eight Parish of Horrocks County of Bourke

ORIGINAL CERTIFICATE.
Not to be dealt with outside the Titles Office.

Dated the *Thirteenth* day of *October* *One*
thousand nine hundred and ten

M. A. King
Assistant Registrar of Titles.
ENCUMBRANCES REFERRED TO.



T03454-696-1-3

Sec 75

Vol. 2987 Fol. 597348

Transfer 33830

Application

Nature of Instrument.	Day and Hour of its Production.	Names of the Parties to it.	Number or Symbol thereon.
Stephen Volant the younger of No 6 Cotterell Farm is the proprietor of the within described estate and land pursuant to a transfer from within named Thomas Robinson registered on the 14 th day of May 1915 at 2.49 o'clock in the afternoon and numbered 774968.		John Em Hays Assistant Registrar of Titles.	
DISCHARGED 19th November 1919 Assistant Registrar of Titles	14 th May 1915 at 2.49 p.m.	Stephen Volant the younger to Thomas Robinson John Em Hays Assistant Registrar of Titles.	3117287
No. A288143 Stephen Volant on 28 th March 1956 Probate of his Will has been granted to Ellen Isabel Volant of Rockbank Wiclow and Thomas Greator of 40 Omana Road Murrumbidgee Manufacturers Dated 8 FEB 1957 Assistant Registrar of Titles		Assistant Registrar of Titles.	
THOMAS GREATOR of Wellington Road Rowville Manufacturer is now the SURVIVING PROPRIETOR Registered 18th February 1956 No. C425468		Assistant Registrar of Titles.	
CATHERINE HELEN GREATOR of Wellington Road Rowville Married Woman is now the Proprietor Registered 28th June 1958 No. D118305		Assistant Registrar of Titles.	
CANCELLED Pursuant to Regulation 12 and Titles issued as set out hereunder on 9 th AUGUST 1976 Lots 2 in Vol 9156 Fol 474 and to Vol 9156 Fol 475 CP. 118420.		Assistant Registrar of Titles.	

NOT TO BE TAKEN FROM THE OFFICE
OF TITLES



VICTORIA

REGISTER BOOK

VOL. 9156 FOL. 475

Certificate of Title

UNDER THE "TRANSFER OF LAND ACT"

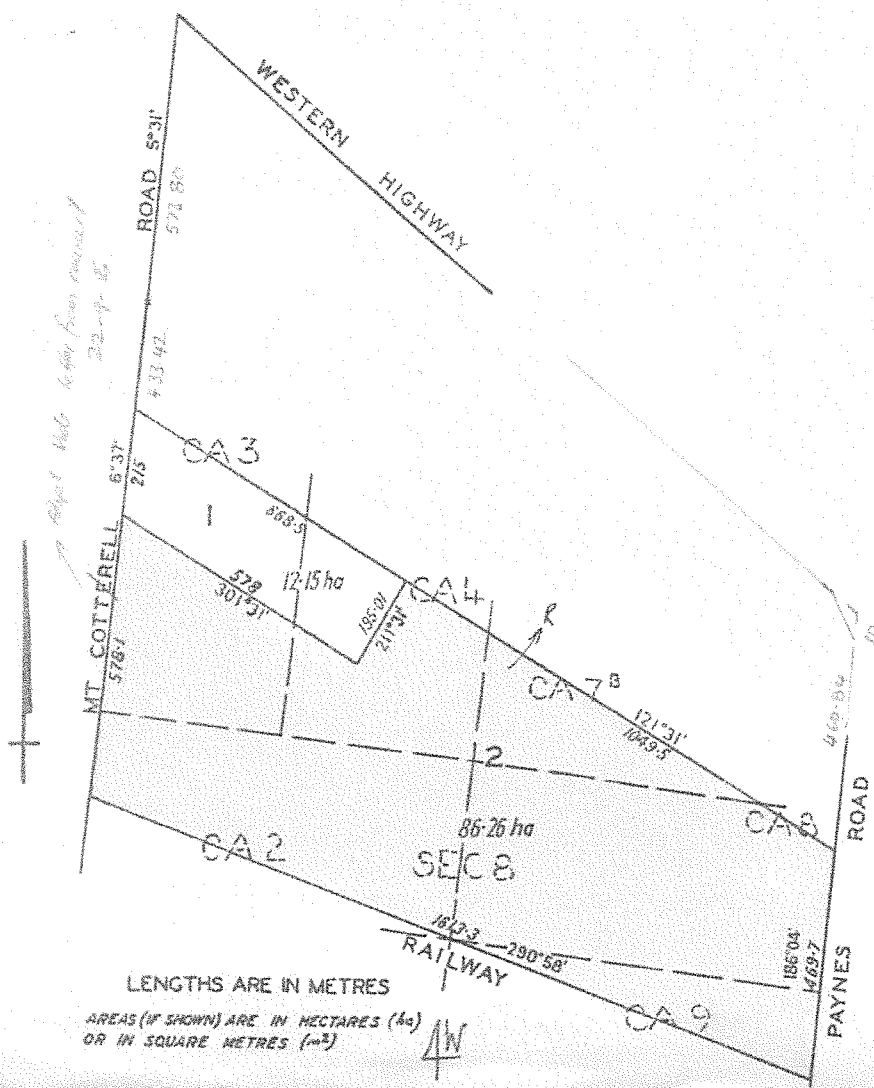
CATHERINE HELEN GREATOREX of Wellington Road Rowville -
Widow is the proprietor of an estate in fee simple subject - -
to the encumbrances notified hereunder in ALL THAT piece of - - -
land coloured on the map hereon being Lot 2 on Plan of - - -
Subdivision No. 118420 Parish of Kororoit County of Bourke -

Issued under Regulation 12
on the approval of the ~~the~~
above Plan of Subdivision-

W. H. Taggart

Assistant Registrar of Titles

ENCUMBRANCES REFERRED TO



Adopted connections 1/1/12

400420 401420

KB 22-4-25

DERIVED
FROM
VOL. 3454
FOL. 696
9/8/'76.

PLAN LP204344V
AFFECTS LAND HEREIN

CANCELLED

The following Titles have been issued
Pursuant to Regulation 10 of the
Transfer of Land Act

on 25.8.88
Lots ONE to 4 in Vol. 9829 Fol. 167
in Vol. 9829 Fol. 173

Pursuant to Section 32 of the
Transfer of Land Act being Road
in Vol. 9829 Fol. 174

LP 204344^V



CANCELLED



T09156-475-1-7

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Produced 17/07/2014 11:34 AM

Volume 09829 Folio 167

Folio Creation: Created as paper folio continued as computer folio

Parent title Volume 09156 Folio 475

RECORD OF ALTS DEALINGS

Date Lodged for Registration	Date Recorded on Register	Dealing	Imaged	Dealing Type and Details
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RECORD OF VOTS DEALINGS

Date Lodged for Registration	Date Recorded on Register	Dealing	Imaged
---------------------------------	------------------------------	---------	--------

21/12/2004	05/01/2005	PS512800M	Y
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PLAN OF SUBDIVISION, SUBDIVISION ACT 1988
Cancelled by PS512800M

STATEMENT END

VOTS Snapshot

Volume 09829 Folio 167
124012803295D
Produced 05/01/2005 10:50 am

LAND DESCRIPTION

Lot 1 on Plan of Subdivision 204344V.

PARENT TITLE Volume 09156 Folio 475

REGISTERED PROPRIETOR

Estate Fee Simple

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HISTORICAL SEARCH STATEMENT

Joint Proprietors

JOSEPH AQUILINA

THELMA AQUILINA both of 1 BUNA WAY KIELOR DOWNS

N868243G 29/11/1988

ENCUMBRANCES, CAVEATS AND NOTICES

MORTGAGE R031593S

WESTPAC BANKING CORPORATION

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

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SEE LP204344V FOR FURTHER DETAILS AND BOUNDARIES

Paper Title Images

9829/167 - Version 0, Date 06/04/1999

CONTINUED AS A
COMPUTER FOLIO

ORIGINAL
NOT TO BE TAKEN FROM THE OFFICE
OF TITLES



VICTORIA

REGISTER BOOK

VOL. 9829 FOL. 167

Certificate of Title

UNDER THE "TRANSFER OF LAND ACT"

CATHERINE HELEN GREATOREX of Mountain Flat Road Narre Warren East is the proprietor of an estate in fee simple subject to the encumbrances notified hereunder in all that land in the Parish of Kororoit being Lot 1 on Plan of Subdivision No. 204344V which land is shown enclosed by continuous lines on the map hereon and identified by that lot number -

Issued under Regulation 10 -

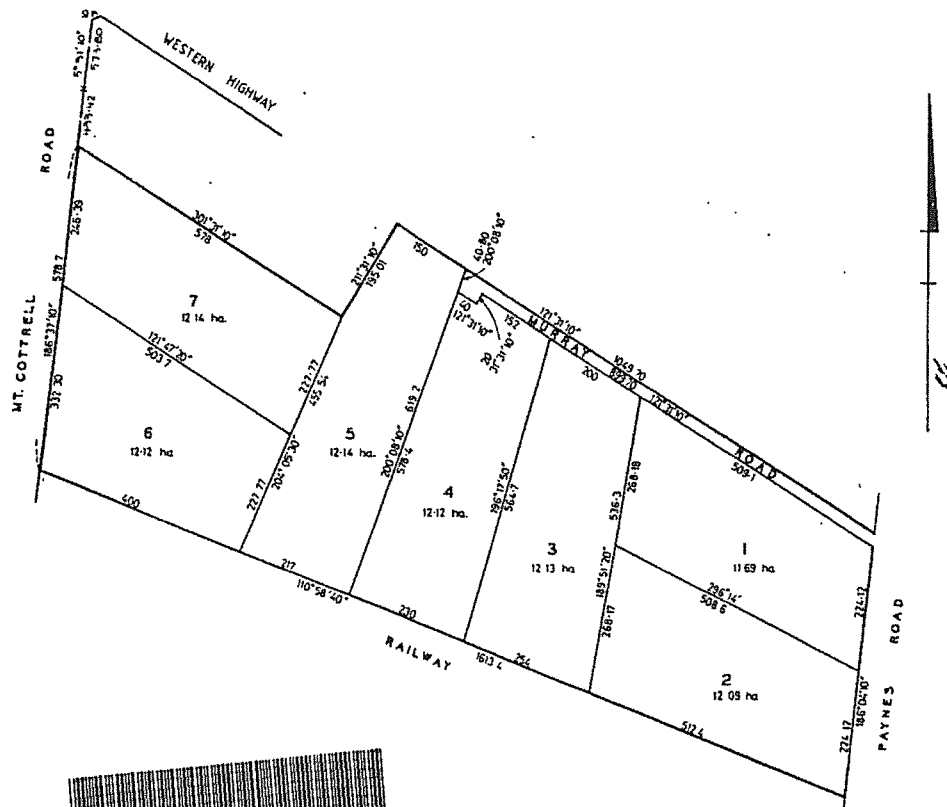
Derived From
Vol. 9156 Fol. 475

25/8/88

ENCUMBRANCES



Phiona
Assistant Registrar of Titles



T09829-167-1-8

MEASUREMENTS ARE IN METRES

FULLY CONVERTED TITLE

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JOINT PROPRIETORS

JOSEPH AQUILINA & THELMA AQUILINA OF

1 BUNA WAY KEILOR DOWNS

REGISTERED 29/11/88

N868243G



M-9
MORTGAGE TO

WESTPAC BANKING
CORPORATION

Registered - 5 OCT 1990

No. R 31593 S

DATA VERIFIED

28 JUL 1993



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COMPUTER FOLIO

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RECORD OF VOTS DEALINGS

Date Lodged for Registration	Date Recorded on Register	Dealing	Imaged
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01/07/2010	02/07/2010	AH336996N	Y
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NOTICE SECTION 201UB PLANNING AND ENVIRONMENT ACT 1987

NOTICE Section 201UB Planning and Environment Act 1987

AH336996N 01/07/2010

06/10/2010	06/10/2010	AH539237E	Y
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DISCHARGE OF MORTGAGE

AFFECTED ENCUMBRANCE(S) AND REMOVED MORTGAGE(S)

MORTGAGE S779442U

STATEMENT END

VOTS Snapshot

VOLUME 09829 FOLIO 168

124034295426R

Produced 02/07/2010 09:02 am

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HISTORICAL SEARCH STATEMENT

LAND DESCRIPTION

Lot 2 on Plan of Subdivision 204344V.
PARENT TITLE Volume 09156 Folio 475
Created by instrument LP204344V 25/08/1988

REGISTERED PROPRIETOR

Estate Fee Simple
Joint Proprietors
GEORGE AQUILINA
CONNIE AQUILINA both of 4 GRANT STREET ST ALBANS 3021
N852893Y 22/11/1988

ENCUMBRANCES, CAVEATS AND NOTICES

MORTGAGE S779442U
AUSTRALIA AND NEW ZEALAND BANKING GROUP LTD

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Paper Title Images

9829/168 - Version 0, Date 06/04/1999

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Certificate of Title

UNDER THE "TRANSFER OF LAND ACT"

CATHERINE HELEN GREATOREX of Mountain Flat Road Narre Warren East is the proprietor of an estate in fee simple subject to the encumbrances notified hereunder in all that land in the Parish of Kororoit being Lot 2 on Plan of Subdivision No. 204344V which land is shown enclosed by continuous lines on the map hereon and identified by that lot number -

Issued under Regulation 10 -

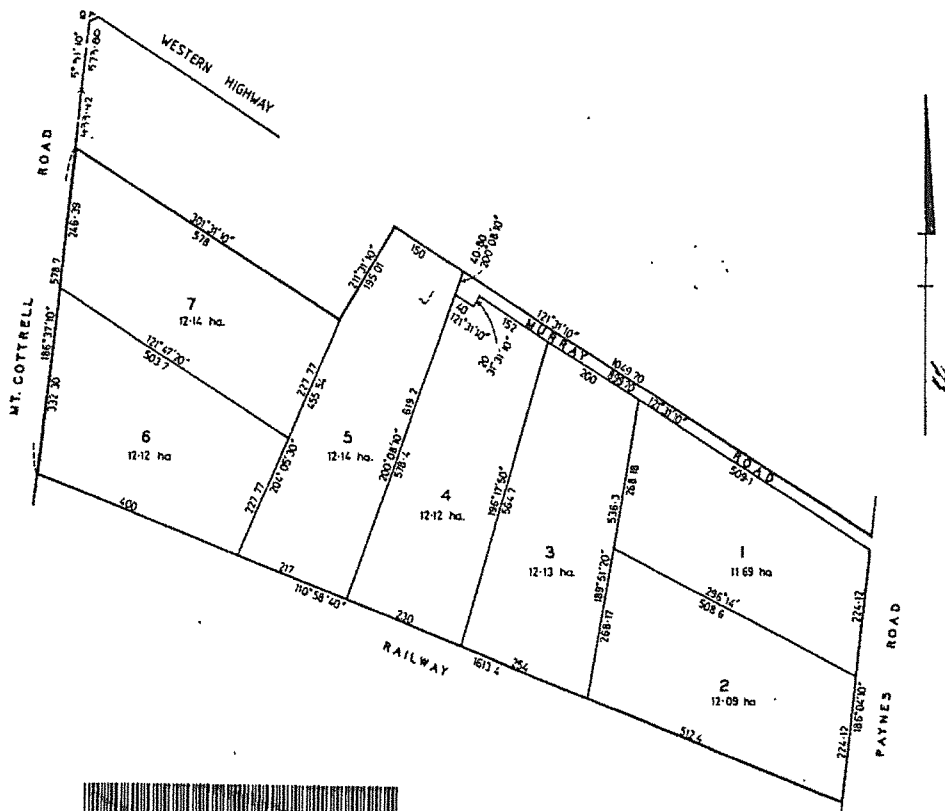
Derived From
Vol. 9156 Fol. 475

25/8/88



R. H. Jones
Assistant Registrar of Titles

ENCUMBRANCES



T09829-168-1-4

MEASUREMENTS ARE IN MÈTRES

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DIAGRAM CORRECTED

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P-5
JOINT PROPRIETORS

GEORGE AQUILINA & CONNIE AQUILINA OF 4

GRANT ST. ST. ALBANS

REGISTERED 22/11/88

N852893Y

DATA VERIFIED

29 JUL 1993



MORTGAGE

AUSTRALIA AND NEW ZEALAND BANKING GROUP
LIMITED

S779442U 9/11/93



DATA VERIFIED
20 JAN 1994

**CONTINUED AS A
COMPUTER FOLIO**

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HISTORICAL SEARCH STATEMENT

Produced 17/07/2014 11:34 AM

Volume 09829 Folio 169

Folio Creation: Created as paper folio continued as computer folio

Parent title Volume 09156 Folio 475

RECORD OF ALTS DEALINGS

Date Lodged for Registration	Date Recorded on Register	Dealing	Imaged	Dealing Type and Details
03/08/1995	11/08/1995	T803940X	Y	MORTGAGE COMMONWEALTH BANK OF AUSTRALIA
03/08/1995	11/08/1995	T803939X	N	DISCHARGE OF MORTGAGE R263219V

RECORD OF VOTS DEALINGS

Date Lodged for Registration	Date Recorded on Register	Dealing	Imaged
01/07/2010	02/07/2010	AH336996N	Y

NOTICE SECTION 201UB PLANNING AND ENVIRONMENT ACT 1987

NOTICE Section 201UB Planning and Environment Act 1987
 AH336996N 01/07/2010

09/09/2013	09/09/2013	AK577642D	Y
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DISCHARGE OF MORTGAGE

AFFECTED ENCUMBRANCE(S) AND REMOVED MORTGAGE(S)
 MORTGAGE T803940X

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HISTORICAL SEARCH STATEMENT

STATEMENT END

VOTS Snapshot

VOLUME 09829 FOLIO 169

124034295427Q

Produced 02/07/2010 09:02 am

LAND DESCRIPTION

Lot 3 on Plan of Subdivision 204344V.

PARENT TITLE Volume 09156 Folio 475

Created by instrument LP204344V 25/08/1988

REGISTERED PROPRIETOR

Estate Fee Simple

Joint Proprietors

ERIC KOUTROUBAS

JANE ELIZABETH KOUTROUBAS both of 5 59 HUDSONS ROAD SPOTSWOOD 3015

R263218Y 19/03/1991

ENCUMBRANCES, CAVEATS AND NOTICES

MORTGAGE T803940X 03/08/1995

COMMONWEALTH BANK OF AUSTRALIA

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

DIAGRAM LOCATION

SEE LP204344V FOR FURTHER DETAILS AND BOUNDARIES

Paper Title Images

9829/169 - Version 0, Date 06/04/1999

ORIGINAL

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VICTORIA

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COMPUTER FOLIO

REGISTER BOOK

VOL 9829 FOL 169

Certificate of Title

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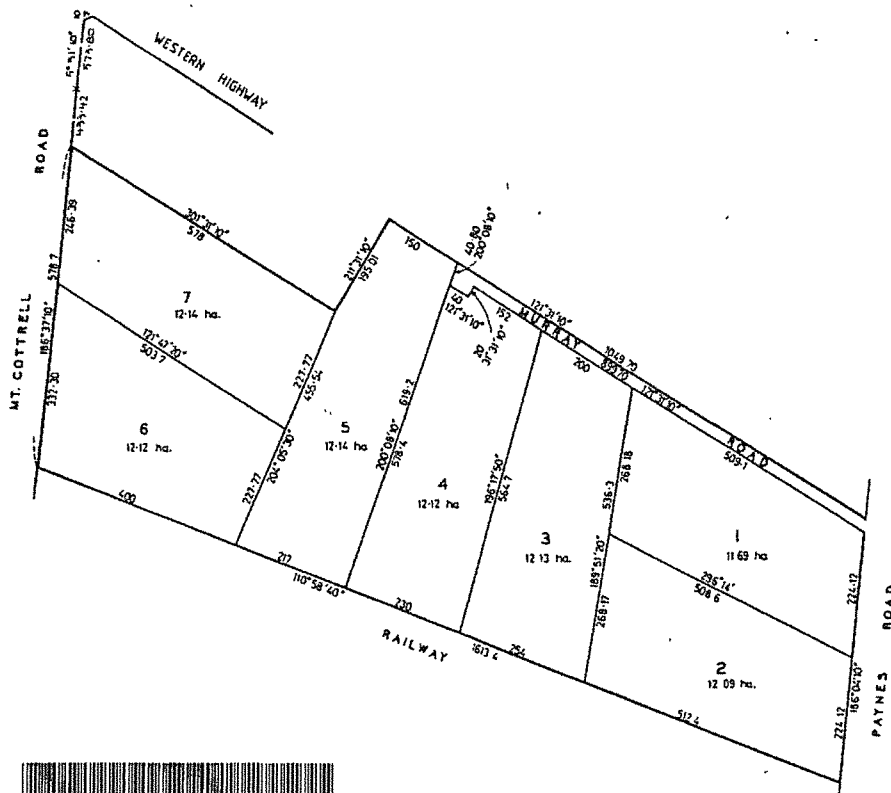
Derived From
Vol. 9156 Fol. 475

25/8/88



Alione
Assistant Registrar of Titles

ENCUMBRANCES



T09829-169-1-1

MEASUREMENTS ARE IN METRES

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CAVEAT

CAVEATOR: ERIC KOUTROUBAS & JANE ELIZABETH KOUTROUBAS

CAPACITY: PURCHASER/FEE SIMPLE

LODGED BY: 715E DAWSON KENNEDY & MCDONALD
OF WITHERS ST. SUNSHINE 3020

NOTICE TO: AS ABOVE

NO: R103622W

DATE: 22/11/90



CAVEAT WILL LAPSE ON

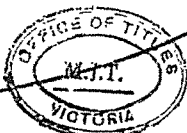
REGISTRATION OF R263218Y
25 MAR 1991

JOINT PROPRIETORS

ERIC KOUTROUBAS & JANE ELIZABETH KOUTROUBAS
OF 5/59 HUDSONS RD. SPOTSWOOD

REGISTERED 19/3/91

R263218Y

**MORTGAGE**

COMMONWEALTH SAVINGS BANK OF AUSTRALIA

REGISTERED 19/3/91

R263219V

**DATA VERIFIED**

28 JUL 1993

CONTINUED AS A
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HISTORICAL SEARCH STATEMENT

Produced 17/07/2014 11:34 AM

Volume 09829 Folio 170

Folio Creation: Created as paper folio continued as computer folio

Parent title Volume 09156 Folio 475

RECORD OF ALTS DEALINGS

Date Lodged for Registration	Date Recorded on Register	Dealing	Imaged	Dealing Type and Details
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RECORD OF VOTS DEALINGS

Date Lodged for Registration	Date Recorded on Register	Dealing	Imaged
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10/03/2002	04/05/2002	AB138911G	Y
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DISCHARGE OF MORTGAGE

MORTGAGE(S) REMOVED
T677556J

10/03/2002	04/05/2002	AB138912E	Y
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MORTGAGE OF LAND

MORTGAGE AB138912E 10/03/2002
WESTPAC BANKING CORPORATION

01/07/2010	02/07/2010	AH336996N	Y
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NOTICE SECTION 201UB PLANNING AND ENVIRONMENT ACT 1987

NOTICE Section 201UB Planning and Environment Act 1987
AH336996N 01/07/2010

STATEMENT END

VOTS Snapshot

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HISTORICAL SEARCH STATEMENT

Volume 09829 Folio 170
124001444131V
Produced 04/05/2002 01:26 pm

LAND DESCRIPTION

Lot 4 on Plan of Subdivision 204344V.
PARENT TITLE Volume 09156 Folio 475
Created by instrument LP204344V 25/08/1988

REGISTERED PROPRIETOR

Estate Fee Simple
Joint Proprietors
KORALTAY MUSTAFA DOLUNER
BILGEN DOLUNER both of 8 CHELMSFORD CRESCENT ST ALBANS 3021
T677555M 12/05/1995

ENCUMBRANCES, CAVEATS AND NOTICES

MORTGAGE T677556J
COMMONWEALTH BANK OF AUSTRALIA

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

DIAGRAM LOCATION

SEE LP204344V FOR FURTHER DETAILS AND BOUNDARIES

Paper Title Images

9829/170 - Version 0, Date 06/04/1999

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VICTORIA

REGISTER BOOK

VOL. 9829 FOL. 170

Certificate of Title

UNDER THE "TRANSFER OF LAND ACT"

P-5
CATHERINE HELEN GREATOREX of Mountain Flat Road Narre Warren East is the proprietor of an estate in fee simple subject to the encumbrances notified hereunder in all that land in the Parish of Kororoit being Lot 4 on Plan of Subdivision No. 204344V which land is shown enclosed by continuous lines on the map hereon and identified by that lot number -

Issued under Regulation 10 -

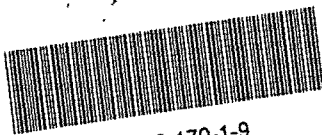
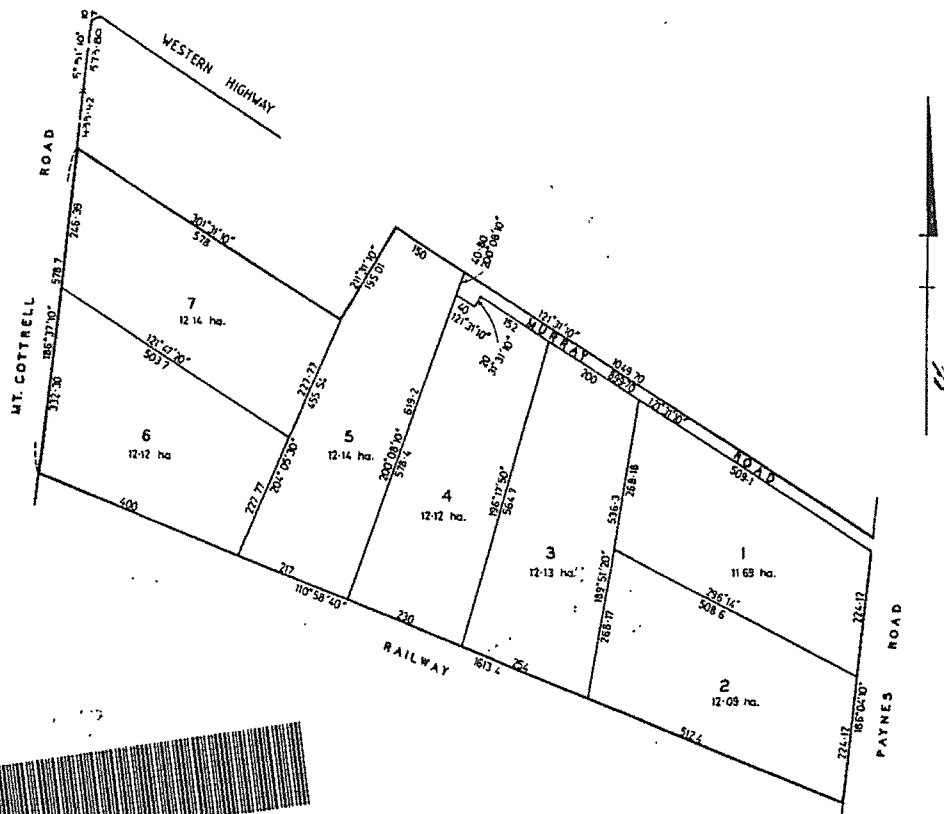
Derived From
Vol. 9156 Fol. 475

25/8/88



M. K. Jones
Assistant Registrar of Titles

ENCUMBRANCES



T09829-170-1-9

MEASUREMENTS ARE IN METRES

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JOINT PROPRIETORS
KORALTAY MUSTAFA DOLUNER &
BILGEN DOLUNER
8 CHELMSFORD CR.
ST. ALBANS 3021
T677555M 12/05/95



MORTGAGE
COMMONWEALTH BANK OF AUSTRALIA

T677556J 12/05/95



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

VOLUME 09829 FOLIO 171

Security no : 124051407674W

Produced 17/07/2014 11:33 am

LAND DESCRIPTION

Lot 5 on Plan of Subdivision 204344V.

PARENT TITLE Volume 09156 Folio 475

REGISTERED PROPRIETOR

Estate Fee Simple

Joint Proprietors

MILCO GOSEV

LENCE GOSEV both of 4 THROSBY ST. DEER PARK 3023

U586598H 10/01/1997

ENCUMBRANCES, CAVEATS AND NOTICES

MORTGAGE AE663305V 12/10/2006

SUNCORP-METWAY LTD

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24 Subdivision Act 1988 and any other encumbrances shown or entered on the plan or imaged folio set out under DIAGRAM LOCATION below.

NOTICE Section 201UB Planning and Environment Act 1987

AH336996N 01/07/2010

DIAGRAM LOCATION

SEE LP204344V FOR FURTHER DETAILS AND BOUNDARIES

ACTIVITY IN THE LAST 125 DAYS

NIL

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

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

Street Address: 123-139 MURRAY ROAD ROCKBANK VIC 3335

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Produced 17/07/2014 11:34 AM

Volume 09829 Folio 171

Folio Creation: Created as paper folio continued as computer folio

Parent title Volume 09156 Folio 475

RECORD OF ALTS DEALINGS

Date Lodged for Registration	Date Recorded on Register	Dealing	Imaged	Dealing Type and Details
10/01/1997	21/01/1997	U586599E	Y	MORTGAGE ADVANCE BANK AUSTRALIA LTD
10/01/1997	21/01/1997	U586598H	Y	TRANSFER GOSEV, MILCO GOSEV, LENCE

RECORD OF VOTS DEALINGS

Date Lodged for Registration	Date Recorded on Register	Dealing	Imaged
24/09/2003	24/09/2003	AC357080T	Y

DISCHARGE OF MORTGAGE

MORTGAGE(S) REMOVED
U586599E

24/09/2003	24/09/2003	AC357081R	Y
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MORTGAGE OF LAND

MORTGAGE AC357081R 24/09/2003
VICTORIAN GROUP (NO.10) CO-OPERATIVE HOUSING SOCIETY LIMITED

03/07/2006	11/07/2006	AE460429H	Y
------------	------------	-----------	---

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HISTORICAL SEARCH STATEMENT

TRANSFER OF MORTGAGE

MORTGAGE AC357081R 24/09/2003

CRUCIS PTY LTD

TRANSFER OF MORTGAGE AE460429H 03/07/2006

12/10/2006	12/10/2006	AE663304X	Y
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DISCHARGE OF MORTGAGE

MORTGAGE(S) REMOVED

AC357081R

12/10/2006	12/10/2006	AE663305V	Y
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MORTGAGE OF LAND

MORTGAGE AE663305V 12/10/2006

SUNCORP-METWAY LIMITED

01/07/2010	02/07/2010	AH336996N	Y
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NOTICE SECTION 201UB PLANNING AND ENVIRONMENT ACT 1987

NOTICE Section 201UB Planning and Environment Act 1987

AH336996N 01/07/2010

STATEMENT END

VOTS Snapshot

Volume 09829 Folio 171

124007534588J

Produced 24/09/2003 09:25 am

LAND DESCRIPTION

Lot 5 on Plan of Subdivision 204344V.

PARENT TITLE Volume 09156 Folio 475

REGISTERED PROPRIETOR

Estate Fee Simple

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HISTORICAL SEARCH STATEMENT

Joint Proprietors

MILCO GOSEV

LENCE GOSEV both of 4 THROSBY ST. DEER PARK 3023

U586598H 10/01/1997

ENCUMBRANCES, CAVEATS AND NOTICES

MORTGAGE U586599E 10/01/1997

ADVANCE BANK AUSTRALIA LTD

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DIAGRAM LOCATION

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9829/171 - Version 0, Date 06/04/1999

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REGISTER BOOK

VOL 9829

FOL 171

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UNDER THE "TRANSFER OF LAND ACT"

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Derived From
Vol. 9156 Fol. 475

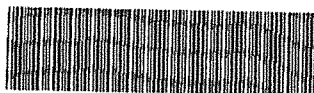
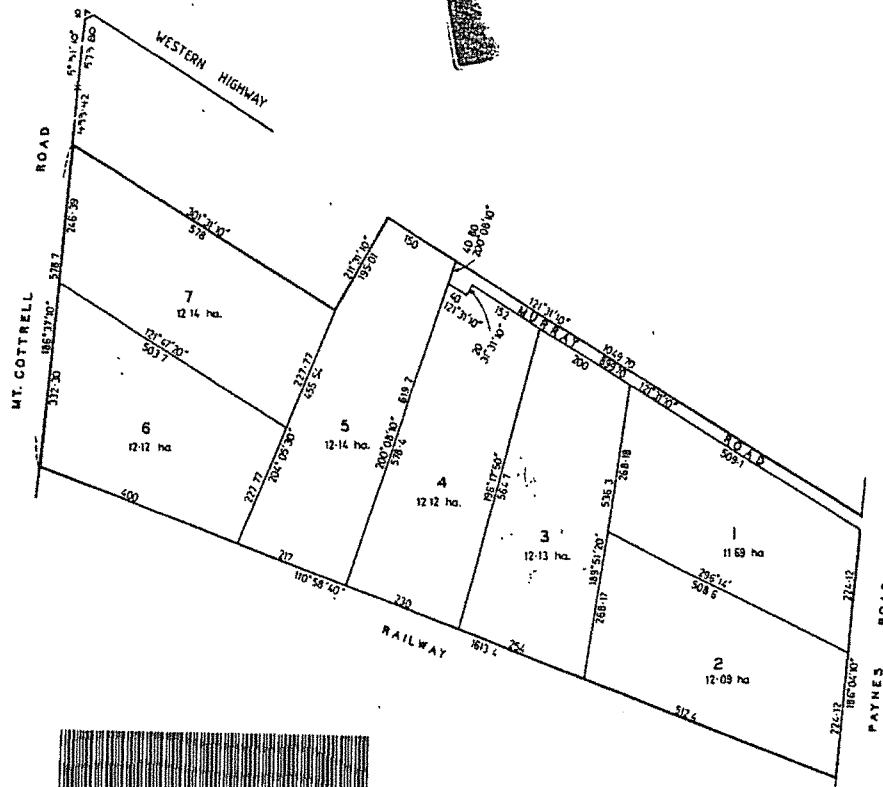
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ENCUMBRANCES



Assistant Registrar of Titles

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T09829-171-1-5

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VOL 9829 FOL 171

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1	2	3	4	5	6	7	8
<div style="display: flex; justify-content: space-between;"> <div style="width: 40%;"> <p>LP204344V EDITION 1 PARISH / TOWNSHIP / CHART</p> </div> <div style="width: 50%;"> <p>NOTATIONS</p> <p>LAND APPROPRIATED OR SET APART FOR THE PURPOSES OF THE SUPPLY OF WATER, ELECTRICITY, TELEPHONE AND GAS</p> </div> </div>							
<div style="display: flex; justify-content: space-between;"> <div style="width: 40%;"> <p>TO BE COMPLETED WHERE APPLICABLE</p> <p>THIS SURVEY HAS BEEN CONNECTED TO PERMANENT MARKS IN PROCLAIMED SURVEY AREA NO. ZONE 55</p> <p>THE LAND TO BE SUBDIVIDED IS SHOWN ENCLOSED BY A CONTINUOUS THICK LINE</p> <p>TITLE REF: VOL 9156, FOL 475</p> <p>LAST PLAN REF: LP 118420 LOT 2</p> </div> <div style="width: 50%;"> <p>PLAN OF SUBDIVISION</p> <p>COUNTY OF BOURKE PARISH OF MORROIT SECTION 8 PART OF CROWN ALLOTMENT 2, 3, 4, 7B, 8, AND 9.</p> </div> </div>							
<div style="display: flex; justify-content: space-between;"> <div style="width: 40%;"> <p>OFFICE USE ONLY</p> <p>NUMBER OF SHEETS IN PLAN: 1</p> <p>NUMBER OF THIS SHEET: 1</p> <p>SCALE: 100 50 0 50 100 200</p> <p>LENGTHS ARE IN METRES</p> <p>ORIGINAL SHEET SIZE: A2</p> </div> <div style="width: 50%;"> <p>PLAN APPROVED</p> <p>AT ON: 25 AUG 1988</p> <p>(ASSISTANT) REGISTRAR OF TITLES</p> </div> </div>							
<div style="display: flex; justify-content: space-between;"> <div style="width: 40%;"> <p>CERTIFICATION BY SURVEYOR</p> <p>204344V</p> <p>2144</p> </div> <div style="width: 50%;"> <p>CERTIFICATE OF MUNICIPAL CLERK</p> <p>COUNCIL REF.</p> <p>MUNICIPALITY: _____</p> <p>DATE: _____</p> <p>MUNICIPAL CLERK: _____</p> </div> </div>							
<div style="display: flex; justify-content: space-between;"> <div style="width: 40%;"> <p>CERTIFICATE A</p> <p>THIS PLAN ACCORDS WITH A PLAN SEALED BY THE COUNCIL UNDER SECTION 589B OF THE LOCAL GOVERNMENT ACT 1958 ON _____</p> <p>CONFIRMED BY THE PLANNING APPEALS BOARD ON _____</p> <p>AND A REQUIREMENT NO REQUIREMENT PURSUANT TO SECTION 589E OF THE LOCAL GOVERNMENT ACT 1958 HAS BEEN MADE</p> </div> <div style="width: 50%;"> <p>CERTIFICATE B</p> <p>THIS PLAN ACCORDS WITH A PLAN EXEMPTED FROM SUBDIVISION (3) OF DIVISION (B) OF PART XIX OF THE LOCAL GOVERNMENT ACT 1958 BY _____</p> <p>THE COUNCIL ON _____</p> <p>THE PLANNING APPEALS BOARD ON _____</p> </div> </div>							

Historical Search

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HISTORICAL SEARCH STATEMENT Land Victoria

 Produced 18/07/2014 09:06 AM

Volume 10850 Folio 362
 Folio Creation: Created as a computer folio
 Parent title Volume 09829 Folio 167

RECORD OF ALTS DEALINGS

Date Lodged for Registration	Date Recorded on Register	Dealing	Imaged	Dealing Type and Details
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RECORD OF VOTS DEALINGS

Date Lodged for Registration	Date Recorded on Register	Dealing	Imaged
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14/12/2005	14/12/2005	AE061629Y	Y
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DISCHARGE OF MORTGAGE
 MORTGAGE(S) REMOVED
 R031593S

14/12/2005	14/12/2005	AE061630Q	Y
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TRANSFER OF LAND BY ENDORSEMENT

FROM:

JOSEPH AQUILINA

THELMA AQUILINA

TO:

ENEASI TEAUPA

RESULTING PROPRIETORSHIP:

Estate Fee Simple

Sole Proprietor

ENEASI TEAUPA of 14 MONS STREET CANTERBURY NSW 2193

AE061630Q 14/12/2005

14/12/2005	14/12/2005	AE061631N	Y
------------	------------	-----------	---

MORTGAGE OF LAND

MORTGAGE AE061631N 14/12/2005

ST. GEORGE BANK LTD

24/03/2010 24/03/2010 AH117520P Y

DISCHARGE OF MORTGAGE

AFFECTED ENCUMBRANCE(S) AND REMOVED MORTGAGE(S)
MORTGAGE AE061631N

01/07/2010 02/07/2010 AH336996N Y

NOTICE SECTION 201UB PLANNING AND ENVIRONMENT ACT 1987

NOTICE Section 201UB Planning and Environment Act 1987
AH336996N 01/07/2010

05/07/2010 14/07/2010 AH339890P Y

TRANSFER OF LAND BY ENDORSEMENT

FROM:

ENEASI TEAUPA

TO:

THE FREE CHURCH OF TONGA

RESULTING PROPRIETORSHIP:

Estate Fee Simple

Sole Proprietor

THE FREE CHURCH OF TONGA of 178-208 PAYNES ROAD ROCKBANK VIC 3335
AH339890P 05/07/2010

STATEMENT END

VOTS Snapshot

Volume 10850 Folio 362
124012803301W
Produced 05/01/2005 10:51 am

LAND DESCRIPTION

Lot 1 on Plan of Subdivision 512800M.
PARENT TITLE Volume 09829 Folio 167
Created by instrument PS512800M 05/01/2005

REGISTERED PROPRIETOR

Estate Fee Simple
Joint Proprietors
JOSEPH AQUILINA
THELMA AQUILINA both of 178 PAYNES ROAD ROCKBANK VIC 3335
PS512800M 05/01/2005

ENCUMBRANCES, CAVEATS AND NOTICES

MORTGAGE R031593S
WESTPAC BANKING CORPORATION

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24 Subdivision Act 1988 and any other encumbrances shown or entered on the
plan set out under DIAGRAM LOCATION below.

DIAGRAM LOCATION

SEE PS512800M FOR FURTHER DETAILS AND BOUNDARIES

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Appendix C. Priority sites register

PRIORITY SITES REGISTER

Information as at 30 June 2014

BACKGROUND

EPA has a key responsibility in protecting beneficial uses of land. Many of these uses are regulated or controlled through a range of measures to prevent contamination of land and groundwater. Land contaminated by former waste disposal, industrial and similar activities is frequently discovered during changes to land use - for example, from industrial to residential use. In most cases these can be managed at the time that the change of land use occurs. Some sites however, present a potential risk to human health or to the environment and must be dealt with as a priority. Such sites are typically subject to clean-up and/or management under EPA directions.

WHAT ARE PRIORITY SITES?

Priority Sites are sites for which EPA has issued a Clean Up Notice pursuant to section 62A, or a Pollution Abatement Notice pursuant to section 31A or 31B (relevant to land and/or groundwater) of the Environment Protection Act 1970. Typically these are sites where pollution of land and/or groundwater presents a potential risk to human health or to the environment. The condition of these sites is not compatible with the current or approved use of the site without active management to reduce the risk to human health and the environment. Such management can include clean up, monitoring and/or institutional controls.

The Priority Sites Register does not list sites managed by voluntary agreements or sites subject to management by planning controls (e.g. sites managed in accordance with a section 173 agreement under the Planning and Environment Act 1987). Land purchasers should be aware of these limitations and make their own enquiries. A site is listed on the Priority Sites Register when EPA issues a Clean Up Notice or a Pollution Abatement Notice (relevant to land and/or groundwater). A notice is a means by which EPA formalises requirements to manage pollution. Sites are removed from the Priority Sites Register once all conditions of a Notice have been complied with. This is formalised through a Notice of Revocation pursuant to section 60B of the Act.

FURTHER INFORMATION

Additional information is available from:
EPA Information Centre
200 Victoria Street
Carlton VIC 3053
1300 EPA VIC (1300 372 842)
www.epa.vic.gov.au

Municipality	Suburb	Address	Issue	Notice Number
Alpine Shire Council	POREPUNKAH	Part There Of Allot. 8 Sec. 8 Parish Of Porepunkah	Former Landfill. Requires ongoing management	0090003842
Alpine Shire Council	POREPUNKAH	Part There Of Allot. 8 Sec. 8 Parish Of Porepunkah	Former Landfill. Requires ongoing management	0090003843
Ararat Rural City Council	ARARAT	26 Grano ST	Former Industrial Site. Requires assessment and/or clean up	0090001739
Ararat Rural City Council	ARARAT	McLellan ST	Railway yard. Requires assessment and/or clean up	0090001744
Ballarat City Council	BALLARAT	1003 Humffray ST	Former Industrial Site. Requires assessment and/or clean up	0090001857
Ballarat City Council	BALLARAT	Canadian Gully Reserve Geelong RD	Historical deposit of mine tailings. Requires assessment and/or clean up	0090000494
Ballarat City Council	BALLARAT	Volume 6747 Folio 250	Current Industrial Site. Requires assessment and/or clean up	0090001913
Ballarat City Council	MOUNT CLEAR	3 WHITEHORSE RD	Former Landfill. Requires ongoing management	0090003912
Ballarat City Council	WARRENHEIP	Ballarat-Burrunbeet RD	Accidental spill/leak (non-industrial site). Requires ongoing management	0090002430
Banyule City Council	GREENSBOROUGH	131 Grimshaw ST	Current Service Station. Requires assessment and/or clean up	0090002585
Bass Coast Shire Council	WONTHAGGI	C/a 15 Section 58 Cameron St	Former Landfill. Requires ongoing management	0090003534
Bass Coast Shire Council	WONTHAGGI	C/a 15 Section 58 Cameron St	Former Landfill. Requires ongoing management	0090003535
Bass Coast Shire Council	WONTHAGGI	C/a 15 Section 58 Cameron St	Former Landfill. Requires ongoing management	0090003536
Baw Baw Shire Council	TRAFALGAR SOUTH	200 Giles RD	Former Landfill. Requires ongoing management	0090003781
Baw Baw Shire Council	TRAFALGAR SOUTH	200 Giles RD	Former Landfill. Requires ongoing management	0090003782
Bayside City Council	BRIGHTON	316 New ST	Former Service Station. Requires assessment and/or clean up	0090001698
Bayside City Council	CHELTENHAM	18 Hamlet ST	Current Industrial Site. Requires ongoing management	0090001671
Brimbank City Council	BROOKLYN	42 Market RD	Former Landfill. Requires ongoing management	0090004022
Brimbank City Council	BROOKLYN	44 McDonald RD	Former Landfill. Requires ongoing management	0090003591
Brimbank City Council	BROOKLYN	52 MARKET RD	Former Landfill. Requires ongoing management	0090004023
Brimbank City Council	BROOKLYN	594 Geelong RD	Former Landfill. Requires ongoing management	0090003478
Brimbank City Council	BROOKLYN	Bunting RD	Former Landfill. Requires ongoing management	0090002743
Brimbank City Council	BROOKLYN	The Western Side Of Jones RD	Former Landfill. Requires ongoing management	0090004024
Brimbank City Council	BROOKLYN	The Western Side Of Jones RD	Former Landfill. Requires ongoing management	0090004025
Brimbank City Council	DEER PARK	765 BALLARAT RD	Current Industrial Site. Requires assessment and/or clean up	0090001886
Brimbank City Council	KEILOR DOWNS	Green Gully RD	Former Landfill. Requires ongoing management	0090003522
Brimbank City Council	KEILOR DOWNS	Green Gully RD	Former Landfill. Requires ongoing management	0090003523

Brimbank City Council	KEILOR DOWNS	Green Gully RD	Former Landfill. Requires ongoing management	0090003524
Brimbank City Council	SUNSHINE	16 THIRD AV	Current Industrial Site. Requires assessment and/or clean up	0090003227
Brimbank City Council	SUNSHINE	47 Mcintyre RD	Former Industrial Site. Requires ongoing management	0090001549
Brimbank City Council	SUNSHINE	6 FIRST AV	Illegal dumping. Requires assessment and/or clean up	0090004622
Brimbank City Council	Sunshine North	56 Baldwin AV	Accidental spill/leak (non-industrial site). Requires assessment and/or clean up	0090004879
Brimbank City Council	SUNSHINE NORTH	51 Mcintyre RD	Current Industrial Site. Requires assessment and/or clean up	0090004807
Brimbank City Council	SYDENHAM	362 SYDENHAM RD	Former Landfill. Requires assessment and/or clean up	0090000921
Brimbank City Council	SYDENHAM	362 SYDENHAM RD	Former Landfill. Requires ongoing management	0090003753
Buloke Shire Council	WANGIE	CA 6, PARISH OF TOORT, FREES RD	Illegal dumping. Requires assessment and/or clean up	0090005031
Campaspe Shire Council	Bamawm Extension	Lot 2 Plan Of Subdivision 544316m Parish Of Torrumbury	Industrial waste has been dumped at the site. Requires assessment and/or clean up	0090001745
Campaspe Shire Council	DIGGORA	ODONNELL RD	Former Landfill. Requires ongoing management	0090003586
Campaspe Shire Council	DIGGORA	ODONNELL RD	Former Landfill. Requires ongoing management	0090003587
Campaspe Shire Council	DIGGORA	ODONNELL RD	Former Landfill. Requires ongoing management	0090003588
Campaspe Shire Council	ECHUCA	176 OGILVIE AV	Current petroleum storage site. Requires assessment and/or clean up	0090004946
Campaspe Shire Council	ECHUCA	Echuca Landfill Echuca-Kyabram RD	Former Landfill. Requires ongoing management	0090003569
Campaspe Shire Council	KYABRAM	Graham RD	Former Landfill. Requires ongoing management	0090003563
Cardinia Shire Council	#	570 Bald Hill Road Pakenham	Former Landfill. Requires ongoing management	0090003597
Casey City Council	CRANBOURNE	Lot 7, 9, 10, 11 & 12 Stevensons Rd	Former Landfill. Requires ongoing management	0090000281
Casey City Council	CRANBOURNE	Lot 7, 9, 10, 11 & 12 Stevensons Rd	Former Landfill. Requires ongoing management	0090004108
Casey City Council	CRANBOURNE	Lot 7, 9, 10, 11 & 12 Stevensons Rd	Former Landfill. Requires ongoing management	0090004109
Casey City Council	NARRE WARREN	188 QUARRY RD	Former Landfill. Requires ongoing management	0090003600
Central Goldfields Shire Council	CARISBROOK	129 WILLIAMS RD	Former Landfill. Requires ongoing management	0090003564
Central Goldfields Shire Council	CARISBROOK	129 WILLIAMS RD	Former Landfill. Requires ongoing management	0090003565
Central Goldfields Shire Council	CARISBROOK	129 WILLIAMS RD	Former Landfill. Requires ongoing management	0090003566
Central Goldfields Shire Council	MARYBOROUGH	53 HIGH ST	Current Service Station. Requires assessment and/or clean up	0090004638
Central Goldfields Shire Council	MARYBOROUGH	60 HIGH ST	Former Service Station. Requires assessment and/or clean up	0090004637
Colac-Otway Shire Council	COLAC	Bruce ST	Former Landfill. Requires ongoing management	0090001464
Colac-Otway Shire Council	COLAC	Bruce ST	Former Landfill. Requires ongoing management	0090003696
Colac-Otway Shire Council	COROROKE	Factory RD	Current Industrial Site. Requires assessment and/or clean up	0090002082
Colac-Otway Shire Council	MARENGO	42 FERRIER DR	Former Industrial Site. Requires assessment and/or clean up	0090004494
Colac-Otway Shire Council	MARENGO	Roberts RD	Former Landfill. Requires ongoing management	0090003634
Corangamite Shire Council	GLENORMISTON	Terang-Mortlake RD	Former Landfill. Requires ongoing management	0090003622
Darebin City Council	NORTHCOTE	Clifton ST	Former Landfill. Requires ongoing management	0090003493
Darebin City Council	PRESTON	140 High ST	Former Industrial Site. Requires assessment and/or clean up	0090000660
Darebin City Council	PRESTON	140 High ST	Former Industrial Site. Requires assessment and/or clean up	0090002948
Darebin City Council	PRESTON	194 Bell ST	Former Industrial Site. Requires assessment and/or clean up	0090002088
Darebin City Council	PRESTON	3 & 7 NEWMAN ST	Former Industrial Site. Requires assessment and/or clean up	0090003150
Darebin City Council	PRESTON	62 Albert ST	Current Industrial Site. Requires ongoing management	0090000535
Darebin City Council	PRESTON	67 High ST	Former Service Station. Requires assessment and/or clean up	0090001449
Darebin City Council	RESERVOIR	87 Newlands RD	Former Landfill. Requires ongoing management	0090003508
East Gippsland Shire Council	BAIRNSDALE	201 Main ST	Former Service Station. Requires assessment and/or clean up	0090001552
East Gippsland Shire Council	BAIRNSDALE	205 Main ST	Former Service Station. Requires assessment and/or clean up	0090004688
East Gippsland Shire Council	BAIRNSDALE	BOSWORTH RD	Former Landfill. Requires ongoing management	0090003783
East Gippsland Shire Council	BAIRNSDALE	BOSWORTH RD	Former Landfill. Requires ongoing management	0090003784

East Gippsland Shire Council	ORBOST	44 Salisbury ST	Former Service Station. Requires assessment and/or clean up	0090001588
Frankston City Council	Frankston	McClelland DR	Former Landfill. Requires ongoing management	0090003594
Frankston City Council	FRANKSTON	3 Rosella ST	Former Industrial Site. Requires assessment and/or clean up	0090003211
Frankston City Council	FRANKSTON	3 Rosella ST	Former Industrial Site. Requires assessment and/or clean up	0090003212
Frankston City Council	FRANKSTON	3 Rosella ST	Former Industrial Site. Requires assessment and/or clean up	0090003213
Glen Eira City Council	CAULFIELD SOUTH	371 Hawthorn RD	Former Service Station. Requires assessment and/or clean up	0090001532
Glen Eira City Council	CAULFIELD SOUTH	818 Glen Huntly RD	Former Service Station. Requires assessment and/or clean up	0090004221
Glenelg Shire Council	PORTLAND	210 Cape Nelson RD	Current landfill. Requires ongoing management	0090001966
Golden Plains Shire Council	MEREDITH	119 MEREDITH-MT MERCER RD	Industrial waste has been dumped at the site. Requires assessment and/or clean up	0090004477
Greater Bendigo City Council	CALIFORNIA GULLY	45 Sandhurst RD	Current petroleum storage site. Requires assessment and/or clean up	0090004999
Greater Bendigo City Council	MYERS FLAT	28 WILLIAMS RD	Industrial waste has been dumped at the site. Requires assessment and/or clean up	0090004173
Greater Bendigo City Council	White Hills	(Crown Allotment 432E Section E)	Industrial waste has been dumped at the site. Requires assessment and/or clean up	0090004649
Greater Dandenong City Council	DANDENONG	230 Frankston-Dandenong RD	Former Service Station. Requires assessment and/or clean up	0090004119
Greater Dandenong City Council	DANDENONG SOUTH	185 Dandenong-Hastings RD	Former Landfill. Requires ongoing management	0090004214
Greater Dandenong City Council	DANDENONG SOUTH	20 Cahill ST	Former Industrial Site. Requires assessment and/or clean up	0090002115
Greater Dandenong City Council	DANDENONG SOUTH	Greens Road GREENS RD	Former Industrial Site. Requires ongoing management	0090001391
Greater Dandenong City Council	SPRINGVALE	310 Springvale RD	Former Service Station. Requires ongoing management	0090001607
Greater Dandenong City Council	SPRINGVALE	917 Princes HWY	Former Industrial Site. Requires assessment and/or clean up	0090001557
Greater Dandenong City Council	SPRINGVALE SOUTH	Clarke RD	Former Landfill. Requires ongoing management	0090003850
Greater Dandenong City Council	SPRINGVALE SOUTH	East Side Of Clarke RD	Former Landfill. Requires ongoing management	0090000608
Greater Dandenong City Council	SPRINGVALE SOUTH	East Side Of Clarke RD	Former Landfill. Requires ongoing management	0090003691
Greater Dandenong City Council	SPRINGVALE SOUTH	East Side Of Clarke RD	Former Landfill. Requires ongoing management	0090003692
Greater Dandenong City Council	SPRINGVALE SOUTH	East Side Of Clarke RD	Former Landfill. Requires ongoing management	0090003693
Greater Geelong City Council	BALLAN	1 6511 Western FWY	Current Service Station. Requires ongoing management	0090004833
Greater Geelong City Council	BELMONT	180 Barwon Heads RD	Former Service Station. Requires assessment and/or clean up	0090002289
Greater Geelong City Council	CORIO	1500 Biddlecombe AV	Current landfill. Requires assessment and/or clean up	0090002361
Greater Geelong City Council	CORIO	246 Princes HWY	Current Service Station. Requires assessment and/or clean up	0090000150
Greater Geelong City Council	CORIO	391 Princes HWY	Former petroleum storage site. Requires ongoing management	0090004837
Greater Geelong City Council	CORIO	83 Purnell RD	Current Service Station. Requires ongoing management	0090002343
Greater Geelong City Council	CORIO	Off Harpur RD	Former Service Station. Requires assessment and/or clean up	0090000782
Greater Geelong City Council	CORIO	Refinery RD	Current Industrial Site. Requires assessment and/or clean up	0090004215
Greater Geelong City Council	CORIO	Refinery RD	Current petroleum storage site. Requires ongoing management	0090000024
Greater Geelong City Council	DRYSDALE	97 High ST	Current Service Station. Requires ongoing management	0090001808
Greater Geelong City Council	EAST GEELONG	HEARNE PDE	Gun, pistol or rifle range. Requires assessment and/or clean up	0090000498
Greater Geelong City Council	GEELONG NORTH	1 Roseneath ST	Former chemical storage facility. Requires assessment and/or clean up	0090001664
Greater Geelong City Council	GEELONG WEST	151 Church ST	Former Service Station. Requires assessment and/or clean up	0090002218
Greater Geelong City Council	LARA	Princes HWY	Accidental spill/leak (non-industrial site). Requires assessment and/or clean up	0090001012
Greater Geelong City Council	MANIFOLD HEIGHTS	35 Shannon AV	Former Service Station. Requires assessment and/or clean up	0090004098
Greater Geelong City Council	MARSHALL	55 WOOLSCOUR LANE	Industrial waste has been dumped at the site. Requires assessment and/or clean up	0090004722
Greater Geelong City Council	MOOLAP	132 Point Henry RD	Current Industrial Site. Requires assessment and/or clean up	0090001832
Greater Geelong City Council	MOOLAP	132 Point Henry RD	Current Industrial Site. Requires assessment and/or clean up	0090001833

Greater Geelong City Council	NORLANE	5 PRINCES HWY	Former Industrial Site. Requires assessment and/or clean up	0090004126
Greater Geelong City Council	NORLANE	60 NORTH SHORE RD	Current Industrial Site. Requires assessment and/or clean up	0090004132
Greater Geelong City Council	NORTH GEELONG	343 MELBOURNE RD	Former Industrial Site. Requires assessment and/or clean up	0090004124
Greater Geelong City Council	NORTH GEELONG	Foreshore Area At End Of Crowle ST	Industrial waste has been dumped at the site. Requires assessment and/or clean up	0090000226
Greater Geelong City Council	South Geelong	11 Strong ST		0090004534
Greater Shepparton City Council	COSGROVE	205 COSGROVE-LEMNOS RD	Former Landfill. Requires ongoing management	0090003551
Greater Shepparton City Council	KIALLA WEST	7358 Goulburn Valley HWY	Industrial waste has been dumped at the site. Requires assessment and/or clean up	0090000083
Greater Shepparton City Council	SHEPPARTON NORTH	280 Daldy RD	Former Industrial Site. Requires assessment and/or clean up	0090001776
Hepburn Shire Council	CRESWICK	175 FOUR STAR (CA16\Section O) RD	Industrial waste has been dumped at the site. Requires assessment and/or clean up	0090004870
Hepburn Shire Council	CRESWICK	18 Clunes RD	Former Service Station. Requires assessment and/or clean up	0090000263
Hepburn Shire Council	CRESWICK	C/a 45a Parish Of Creswick County Of Talbot	Former Landfill. Requires ongoing management	0090003558
Hepburn Shire Council	CRESWICK	C/a 45a Parish Of Creswick County Of Talbot	Former Landfill. Requires ongoing management	0090003559
Hepburn Shire Council	CRESWICK	C/a 45a Parish Of Creswick County Of Talbot	Former Landfill. Requires ongoing management	0090003560
Hepburn Shire Council	DAYLESFORD	47 RAGLAN ST	Current Service Station. Requires ongoing management	0090004373
Hobsons Bay City Council	ALTONA	351 MILLERS RD	Current Industrial Site. Requires assessment and/or clean up	0090000597
Hobsons Bay City Council	ALTONA	401 Kororoit Creek RD	Current Industrial Site. Requires assessment and/or clean up	0090000009
Hobsons Bay City Council	ALTONA	401 Kororoit Creek RD	Current Industrial Site. Requires assessment and/or clean up	0090003368
Hobsons Bay City Council	ALTONA	541 Kororoit Creek RD	Current chemical storage facility. Requires assessment and/or clean up	0090000425
Hobsons Bay City Council	ALTONA	Elfield Meadows Estate Defined By Volume 10426	Waste Acid Sulfate Soils. Requires ongoing management	0090002765
Hobsons Bay City Council	ALTONA	Queen ST	Former Landfill. Requires ongoing management	0090003470
Hobsons Bay City Council	ALTONA	Queen ST	Former Landfill. Requires ongoing management	0090003472
Hobsons Bay City Council	ALTONA MEADOWS	306 Queen ST	Current Service Station. Requires assessment and/or clean up	0090002186
Hobsons Bay City Council	ALTONA NORTH	Kyle RD	Former Landfill. Requires ongoing management	0090003527
Hobsons Bay City Council	BROOKLYN	Hardie RD	Former Landfill. Requires ongoing management	0090003487
Hobsons Bay City Council	NEWPORT	411 DOUGLAS PDE	Current Industrial Site. Requires assessment and/or clean up	0090002086
Hobsons Bay City Council	NEWPORT	Burleigh ST	Current petroleum storage site. Requires assessment and/or clean up	0090001325
Hobsons Bay City Council	NEWPORT	Underground Section Of Petroleum Pipelines That Run Under Champion Rd	Current Industrial Site. Requires assessment and/or clean up	0090001459
Hobsons Bay City Council	NEWPORT	Underground Section Of Petroleum Pipelines That Run Under Champion Rd	Current Industrial Site. Requires ongoing management	0090000598
Hobsons Bay City Council	SOUTH KINGSVILLE	22 New ST	Former Landfill. Requires assessment and/or clean up	0090001727
Hobsons Bay City Council	SOUTH KINGSVILLE	38 Blackshaws RD	Former Industrial Site. Requires ongoing management	0090002381
Hobsons Bay City Council	SPOTSWOOD	144 HALL ST	Current Industrial Site. Requires assessment and/or clean up	0090003301
Hobsons Bay City Council	SPOTSWOOD	18 Drake ST	Current petroleum storage site. Requires assessment and/or clean up	0090001709
Hobsons Bay City Council	SPOTSWOOD	42 Simcock AV	Former Industrial Site. Requires assessment and/or clean up	0090002179
Hobsons Bay City Council	SPOTSWOOD	512 Melbourne RD	Railway yard. Requires assessment and/or clean up	0090000799
Hobsons Bay City Council	WILLIAMSTOWN	12 Seaview PDE	Current Industrial Site. Requires ongoing management	0090002444
Hume City Council	BULLA	315 Loemans RD	Industrial waste has been dumped at the site. Requires assessment and/or clean up	0090000177
Hume City Council	CAMPBELLFIELD	1735 Sydney RD	Current Industrial Site. Requires assessment and/or clean up	0090002373
Hume City Council	CAMPBELLFIELD	26 GLENBARRY RD	Illegal dumping. Requires assessment and/or clean up	0090003380
Hume City Council	CAMPBELLFIELD	26 GLENBARRY RD	Illegal dumping. Requires assessment and/or clean up	0090003863
Hume City Council	CAMPBELLFIELD	2 8 REO CR	Former chemical storage facility. Requires assessment and/or clean up	0090004284

Hume City Council	CAMPBELLFIELD	29 HALLEY CR	Illegal dumping. Requires assessment and/or clean up	0090004877
Hume City Council	CAMPBELLFIELD	5 REO CR	Current Industrial Site. Requires assessment and/or clean up	0090003276
Hume City Council	CAMPBELLFIELD	Bolinda RD	Current landfill. Requires ongoing management	0090004684
Hume City Council	CAMPBELLFIELD	Bolinda RD	Former Landfill. Requires ongoing management	0090003793
Hume City Council	CAMPBELLFIELD	Bolinda RD	Former Landfill. Requires ongoing management	0090003794
Hume City Council	CAMPBELLFIELD	Mahoneys RD	Former Landfill. Requires ongoing management	0090003496
Hume City Council	CRAIGIEBURN	Craigieburn RD	Former Landfill. Requires ongoing management	0090003107
Hume City Council	CRAIGIEBURN	Craigieburn RD	Former Landfill. Requires ongoing management	0090003475
Hume City Council	DIGGERS REST	50 EDWARDS RD	Illegal dumping. Requires assessment and/or clean up	0090004581
Hume City Council	DIGGERS REST	65 EDWARDS RD	Industrial waste has been dumped at the site. Requires assessment and/or clean up	0090003640
Hume City Council	GREENVALE	100 OAKLANDS RD	Illegal dumping. Requires ongoing management	0090001856
Hume City Council	MELBOURNE AIRPORT	206 WESTERN AV	Former Landfill. Requires assessment and/or clean up	0090003661
Hume City Council	SOMERTON	Cliffords RD	Former Industrial Site. Requires assessment and/or clean up	0090002446
Hume City Council	Tullamarine	105 ANNANDALE RD	Illegal dumping. Requires assessment and/or clean up	0090004149
Hume City Council	TULLAMARINE	Western AV	Former Landfill. Requires ongoing management	0090003530
Hume City Council	WILDWOOD	520 WILDWOOD RD	Illegal dumping. Requires assessment and/or clean up	0090004601
Kingston City Council	CHELSEA	476 Nepean HWY	Former Service Station. Requires assessment and/or clean up	0090001389
Kingston City Council	CHELSEA	59 MULKARRA DR	Former Landfill. Requires assessment and/or clean up	0090004862
Kingston City Council	CHELSEA	Scotch PDE	Former Landfill. Requires ongoing management	0090003613
Kingston City Council	CLAYTON SOUTH	654 Clayton RD	Current landfill. Requires assessment and/or clean up	0090004869
Kingston City Council	CLAYTON SOUTH	8 Elder ST	Former Landfill. Requires ongoing management	0090003610
Kingston City Council	CLAYTON SOUTH	Cnr Deals RD & Heatherton RD	Former Landfill. Requires ongoing management	0090003759
Kingston City Council	CLAYTON SOUTH	Cnr Deals RD & Heatherton RD	Former Landfill. Requires ongoing management	0090003780
Kingston City Council	CLAYTON SOUTH	Former Clayton Road Landfill Cnr. Clayton Road & Ryans Road	Former Landfill. Requires ongoing management	0090003966
Kingston City Council	CLAYTON SOUTH	Former Clayton Road Landfill Cnr. Clayton Road & Ryans Road	Former Landfill. Requires ongoing management	0090004353
Kingston City Council	CLAYTON SOUTH	Ryans RD	Former Landfill. Requires ongoing management	0090003607
Kingston City Council	CLAYTON SOUTH	RYANS RD	Former Landfill. Requires ongoing management	0090003604
Kingston City Council	DINGLEY VILLAGE	370 Old Dandenong RD	Former Landfill. Requires ongoing management	0090003831
Kingston City Council	DINGLEY VILLAGE	370 Old Dandenong RD	Former Landfill. Requires ongoing management	0090003832
Kingston City Council	MENTONE	17 BALCOMBE RD	Former Service Station. Requires assessment and/or clean up	0090004424
Kingston City Council	MOORABBIN	1 10 Ebdon ST	Former Industrial Site. Requires ongoing management	0090002273
Kingston City Council	MOORABBIN	SOUTH WEST CNR HEATHERTON SANDS & BUNNYS LANE	Former Landfill. Requires ongoing management	0090004461
Kingston City Council	MOORABBIN	SOUTH WEST CNR HEATHERTON SANDS & BUNNYS LANE	Former Landfill. Requires ongoing management	0090004462
Kingston City Council	MORDIALLOC	78 White ST	Former Industrial Site. Requires assessment and/or clean up	0090002256
Knox City Council	WANTIRNA	706 BORONIA RD	Illegal dumping. Requires assessment and/or clean up	0090000181
Knox City Council	WANTIRNA SOUTH	14 COPPELIA ST	Former Landfill. Requires ongoing management	0090003736
Knox City Council	WANTIRNA SOUTH	14 COPPELIA ST	Former Landfill. Requires ongoing management	0090003737
Knox City Council	WANTIRNA SOUTH	14 COPPELIA ST	Former Landfill. Requires ongoing management	0090004220
Knox City Council	WANTIRNA SOUTH	Cathies LANE	Former Landfill. Requires ongoing management	0090000475
Knox City Council	WANTIRNA SOUTH	Cathies LANE	Former Landfill. Requires ongoing management	0090003738
Latrobe City Council	MORWELL	PT CA 86B & CA 104A Parish of Maryvale	Former Landfill. Requires ongoing management	0090003787
Latrobe City Council	MORWELL	PT CA 86B & CA 104A Parish of Maryvale	Former Landfill. Requires ongoing management	0090003788
Latrobe City Council	NEWBOROUGH	Haunted Hills RD	Former Landfill. Requires ongoing management	0090003785
Latrobe City Council	NEWBOROUGH	Haunted Hills RD	Former Landfill. Requires ongoing management	0090003786
Latrobe City Council	TRARALGON	TRARALGON WEST RD	Former Landfill. Requires assessment and/or clean up	0090003964
Latrobe City Council	TRARALGON SOUTH	Loy Yang B3/4 Bartons Lane	Ash pond with a Groundwater Attenuation Zone. Requires ongoing management	0090002894
Macedon Ranges Shire Council	BULLENGAROOK	Hobbs RD	Former Landfill. Requires ongoing management	0090003580
Macedon Ranges Shire Council	BULLENGAROOK	Hobbs RD	Former Landfill. Requires ongoing management	0090003581
Macedon Ranges Shire Council	BULLENGAROOK	Hobbs RD	Former Landfill. Requires ongoing management	0090003582

Macedon Ranges Shire Council	KYNETON	134 HIGH ST	Former Service Station. Requires assessment and/or clean up	0090004559
Macedon Ranges Shire Council	KYNETON	134 HIGH ST	Former Service Station. Requires assessment and/or clean up	0090004708
Macedon Ranges Shire Council	KYNETON	Redesdale RD	Former Landfill. Requires assessment and/or clean up	0090004813
Macedon Ranges Shire Council	KYNETON	Redesdale RD	Former Landfill. Requires ongoing management	0090003555
Macedon Ranges Shire Council	KYNETON	Redesdale RD	Former Landfill. Requires ongoing management	0090003556
Macedon Ranges Shire Council	KYNETON	Redesdale RD	Former Landfill. Requires ongoing management	0090003557
Macedon Ranges Shire Council	LANCEFIELD	Baynton (Lot 16 LP208950) RD	Former Landfill. Requires assessment and/or clean up	0090004817
Macedon Ranges Shire Council	ROMSEY	2 33 MAIN ST	Current Service Station. Requires assessment and/or clean up	0090005015
Macedon Ranges Shire Council	ROMSEY	2 33 MAIN ST	Current Service Station. Requires assessment and/or clean up	0090005016
Macedon Ranges Shire Council	SPRINGFIELD	130 Toomeys LANE	Illegal dumping. Requires assessment and/or clean up	0090004043
Macedon Ranges Shire Council	SPRINGFIELD	130 Toomeys LANE	Illegal dumping. Requires assessment and/or clean up	0090004044
Macedon Ranges Shire Council	WOODEND	130 High ST	Current Service Station. Requires assessment and/or clean up	0090004073
Mansfield Shire Council	MANSFIELD	Monkey Gully RD	Former Landfill. Requires ongoing management	0090003844
Mansfield Shire Council	MANSFIELD	Monkey Gully RD	Former Landfill. Requires ongoing management	0090003845
Maribyrnong City Council	BRAYBROOK	30 SOUTH RD	Former Industrial Site. Requires assessment and/or clean up	0090004372
Maribyrnong City Council	BROOKLYN	550 GEELONG RD	Former Industrial Site. Requires assessment and/or clean up	0090002056
Maribyrnong City Council	BROOKLYN	550 GEELONG RD	Illegal dumping. Requires assessment and/or clean up	0090004455
Maribyrnong City Council	FOOTSCRAY	Farnsworth AV	Former Landfill. Requires ongoing management	0090003484
Maribyrnong City Council	MAIDSTONE	9 WILLIAMSON RD	Former Industrial Site. Requires assessment and/or clean up	0090001771
Maribyrnong City Council	MAIDSTONE	9 WILLIAMSON RD	Former Industrial Site. Requires assessment and/or clean up	0090003767
Maribyrnong City Council	MAIDSTONE	9 WILLIAMSON RD	Former Industrial Site. Requires assessment and/or clean up	0090003768
Maribyrnong City Council	WEST FOOTSCRAY	Somerville RD	Former Industrial Site. Requires assessment and/or clean up	0090002163
Maribyrnong City Council	Yarraville	325 Whitehall Street	Former Industrial Site. Requires assessment and/or clean up	0090001942
Maribyrnong City Council	Yarraville	325 Whitehall Street	Former Industrial Site. Requires ongoing management	0090001941
Maribyrnong City Council	YARRAVILLE	1 High ST	Former Industrial Site. Requires ongoing management	0090000134
Maribyrnong City Council	YARRAVILLE	2A FRANCIS ST	Current Industrial Site. Requires assessment and/or clean up	0090001122
Maribyrnong City Council	YARRAVILLE	Yarraville Terminal Francis ST	Current petroleum storage site. Requires assessment and/or clean up	0090000989
Maroondah City Council	CROYDON	171 Mt Dandenong RD	Former Service Station. Requires ongoing management	0090002862
Maroondah City Council	RINGWOOD	385 Canterbury RD	Current Service Station. Requires ongoing management	0090003514
Maroondah City Council	RINGWOOD EAST	18 Mount Dandenong RD	Current Service Station. Requires assessment and/or clean up	0090001804
Melton Shire Council	MELTON	Ferris RD	Former Landfill. Requires ongoing management	0090003481
Melton Shire Council	MELTON SOUTH	2 FERRIS RD	Former Landfill. Requires ongoing management	0090003479
Melton Shire Council	MELTON SOUTH	2 FERRIS RD	Former Landfill. Requires ongoing management	0090003480
Melton Shire Council	MOUNT COTTRELL	180 Faulknors RD	Solid inert waste has been dumped at the site. Requires assessment and/or clean up	0090000416
Melton Shire Council	PLUMPTON	1 Holden RD	Solid inert waste has been dumped at the site. Requires assessment and/or clean up	0090000159
Melton Shire Council	PLUMPTON	627 Plumpton RD	Solid inert waste has been dumped at the site. Requires assessment and/or clean up	0090000300
Melton Shire Council	PLUMPTON	627 PLUMPTON RD	Illegal dumping. Requires assessment and/or clean up	0090004146
Melton Shire Council	PLUMPTON	627 PLUMPTON RD	Solid inert waste has been dumped at the site. Requires assessment and/or clean up	0090003893
Melton Shire Council	RAVENHALL	48A ORBIS DR	Illegal dumping. Requires assessment and/or clean up	0090003361
Mildura Rural City Council	CABARITA (Allot.110A/PP3102)	349 MCEDWARD ST	Industrial waste has been dumped at the site. Requires assessment and/or clean up	0090003774
Mildura Rural City Council	KOORLONG	Twentieth ST	Former Landfill. Requires ongoing management	0090003585
Mildura Rural City Council	MILDURA	211 NINTH ST	Former petroleum storage site. Requires assessment and/or clean up	0090004759
Mildura Rural City Council	MILDURA	42 NINTH ST	Former petroleum storage site. Requires assessment and/or clean up	0090004105

Mildura Rural City Council	MILDURA	42 NINTH ST	Former petroleum storage site. Requires assessment and/or clean up	0090004154
Mildura Rural City Council	NICHOLS POINT	63 CURETON AV	Industrial waste has been dumped at the site. Requires assessment and/or clean up	0090004342
Mildura Rural City Council	OUYEN	48 FARRELL ST	Former petroleum storage site. Requires assessment and/or clean up	0090004611
Mitchell Shire Council	BROADFORD	30 MIA MIA RD	Accidental spill/leak (non-industrial site). Requires assessment and/or clean up	0090005017
Mitchell Shire Council	BROADFORD	High ST	Former Landfill. Requires ongoing management	0090003542
Mitchell Shire Council	KILMORE	Walders RD	Former Landfill. Requires ongoing management	0090003834
Mitchell Shire Council	KILMORE	Walders RD	Former Landfill. Requires ongoing management	0090003835
Mitchell Shire Council	NORTHWOOD	1630 Northwood RD	Solid inert waste has been dumped at the site. Requires assessment and/or clean up	0090004152
Mitchell Shire Council	SEYMOUR	117 Wimble ST	Current Industrial Site. Requires assessment and/or clean up	0090001737
Mitchell Shire Council	SEYMOUR	HUME AND HOVELL ROAD	Former Landfill. Requires ongoing management	0090003836
Mitchell Shire Council	SEYMOUR	HUME AND HOVELL ROAD	Former Landfill. Requires ongoing management	0090003837
Moira Shire Council	BURRAMINE	171 THOMS RD	Industrial waste has been dumped at the site. Requires assessment and/or clean up	0090004594
Moira Shire Council	NUMURKAH	Parish Of Katunga C/a 14 Sect D Naring Rd	Former Landfill. Requires ongoing management	0090003545
Moira Shire Council	YARRAWONGA	81 Channel RD	Former Landfill. Requires ongoing management	0090003539
Monash City Council	CLAYTON	1555 Centre RD	Current Industrial Site. Requires ongoing management	0090004466
Monash City Council	GLEN WAVERLEY	310 SPRINGVALE RD	Current Industrial Site. Requires assessment and/or clean up	0090002027
Monash City Council	OAKLEIGH	1386 Dandenong RD	Current Service Station. Requires assessment and/or clean up	0090003887
Monash City Council	OAKLEIGH EAST	108 FERNTREE GULLY RD	Former Landfill. Requires ongoing management	0090004273
Moonee Valley City Council	ASCOT VALE	556 MT ALEXANDER RD	Current Service Station. Requires assessment and/or clean up	0090004430
Moonee Valley City Council	MOONEE PONDS	783 Mt Alexander RD	Current Service Station. Requires assessment and/or clean up	0090000664
Moorabool Shire Council	BACCHUS MARSH	End of Halletts WAY	Industrial waste has been dumped at the site. Requires assessment and/or clean up	0090001880
Moorabool Shire Council	FISKVILLE	Geelong-Ballan RD	Current Industrial Site. Requires assessment and/or clean up	0090004570
Moorabool Shire Council	FISKVILLE	Geelong-Ballan RD	Current Industrial Site. Requires assessment and/or clean up	0090004571
Moorabool Shire Council	MADDINGLEY	Side Of Kerrs RD	Former Landfill. Requires ongoing management	0090003631
Moreland City Council	Brunswick	225 and 227-231 Barkly Street	Former Industrial Site. Requires ongoing management	0090004362
Moreland City Council	BRUNSWICK	225 and 227-231 Barkly Street	Former Industrial Site. Requires ongoing management	0090004520
Moreland City Council	COBURG NORTH	46 Newlands RD	Current petroleum storage site. Requires assessment and/or clean up	0090004468
Moreland City Council	PASCOE VALE	512 PASCOE VALE RD	Current Service Station. Requires assessment and/or clean up	0090002542
Mornington Peninsula Shire Council	CRIB POINT	2 Lens ST	Former Landfill. Requires ongoing management	0090003619
Mornington Peninsula Shire Council	CRIB POINT	The Esplanade	Former Industrial Site. Requires ongoing management	0090002897
Mornington Peninsula Shire Council	MOUNT ELIZA	250 Moorooduc HWY	Former Landfill. Requires ongoing management	0090000477
Mornington Peninsula Shire Council	MOUNT ELIZA	250 Moorooduc HWY	Former Landfill. Requires ongoing management	0090003744
Mornington Peninsula Shire Council	ROSEBUD WEST	119 Truemans RD	Former Landfill. Requires ongoing management	0090003616
Mornington Peninsula Shire Council	RYE	2233 POINT NEPEAN RD	Current Service Station. Requires ongoing management	0090000658
Mornington Peninsula Shire Council	SOMERVILLE	182 Eramosa RD	Illegal dumping. Requires assessment and/or clean up	0090000097
Mount Alexander Shire Council	Castlemaine	74 Tomkies Road Lane	Contaminated soil is retained and managed onsite. Requires ongoing management	0090004156
Mount Alexander Shire Council	WALMER	20 CENTRE RD	Industrial waste has been dumped at the site. Requires assessment and/or clean up	0090004101
Moyne Shire Council	ALLANSFORD	5331 Great Ocean RD	Current Industrial Site. Requires ongoing management	0090004322
Moyne Shire Council	PORT FAIRY	Allotment 36a (pt) Parish Of Koroit Township Of Port Fairy -	Former Landfill. Requires assessment and/or clean up	0090003337
Moyne Shire Council	PORT FAIRY	Badhams LANE	Former Landfill. Requires ongoing management	0090003625
Moyne Shire Council	PORT FAIRY	Portion 10(pt) Parish Of Koroit Property Number 506450	Former Landfill. Requires assessment and/or clean up	0090003335
Nillumbik Shire Council	DIAMOND CREEK	50 Fraser ST	Historical deposit of mine tailings. Requires assessment and/or clean up	0090002671
Nillumbik Shire Council	ELTHAM	197 Sherbourne RD	Former petroleum storage site. Requires assessment and/or clean up	0090004460
Nillumbik Shire Council	KANGAROO GROUND	105 GRAHAM RD	Former Landfill. Requires ongoing management	0090003503

Nilumbik Shire Council	KANGAROO GROUND	105 GRAHAM RD	Former Landfill. Requires ongoing management	0090003504
Nilumbik Shire Council	KANGAROO GROUND	105 GRAHAM RD	Former Landfill. Requires ongoing management	0090003505
Nilumbik Shire Council	PANTON HILL	165 MOTSCHALL RD	Current Industrial Site. Requires ongoing management	0090002787
Nilumbik Shire Council	PANTON HILL	165 MOTSCHALL RD	Industrial waste has been dumped at the site. Requires assessment and/or clean up	0090002083
Nilumbik Shire Council	YARRAMBAT	Yan Yean RD	Former Landfill. Requires ongoing management	0090003407
Nilumbik Shire Council	YARRAMBAT	Yan Yean RD	Former Landfill. Requires ongoing management	0090003408
Northern Grampians Shire Council	Stawell	Tailings Storage Facility No.2 ,CA1 Sec5 CA4 Sec5, CA5 Sec5, CA6 Sec5, CA18V Sec2	Historical deposit of mine tailings. Requires assessment and/or clean up	0090004168
Northern Grampians Shire Council	STAWELL	25 Horsham RD	Former Industrial Site. Requires ongoing management	0090002140
Port Phillip City Council	ELWOOD	54A MARINE PDE	Current Service Station. Requires assessment and/or clean up	0090000663
Port Phillip City Council	PORT MELBOURNE	337 WILLIAMSTOWN RD	Current Service Station. Requires assessment and/or clean up	0090004839
South Gippsland Shire Council	FOSTER	4090 SOUTH GIPPSLAND HWY	Former Landfill. Requires ongoing management	0090003533
South Gippsland Shire Council	FOSTER	4090 SOUTH GIPPSLAND HWY	Former Landfill. Requires ongoing management	0090003745
South Gippsland Shire Council	FOSTER	4090 SOUTH GIPPSLAND HWY	Former Landfill. Requires ongoing management	0090003746
South Gippsland Shire Council	FOSTER	4090 SOUTH GIPPSLAND HWY	Former Landfill. Requires ongoing management	0090003747
South Gippsland Shire Council	LEONGATHA SOUTH	630 ROUGHEADS RD	Former Landfill. Requires ongoing management	0090003789
South Gippsland Shire Council	LEONGATHA SOUTH	630 ROUGHEADS RD	Former Landfill. Requires ongoing management	0090003790
Stonnington City Council	PRAHRAN	549 High ST	Current Service Station. Requires assessment and/or clean up	0090000662
Strathbogie Shire Council	VIOLET TOWN	190 Mcdiarmids RD	Former Landfill. Requires ongoing management	0090003846
Strathbogie Shire Council	VIOLET TOWN	190 Mcdiarmids RD	Former Landfill. Requires ongoing management	0090003847
Surf Coast Shire Council	WINCHELSEA	114 Trebeck CT	Illegal dumping. Requires assessment and/or clean up	0090001935
Swan Hill Rural City Council	PENTAL ISLAND	LOT 4\PS537291, 1411 PENTAL ISLAND ROAD	Industrial waste has been dumped at the site. Requires assessment and/or clean up	0090004875
Swan Hill Rural City Council	ROBINVALE	BLOCK 5 116 HOCKING RD	Industrial waste has been dumped at the site. Requires assessment and/or clean up	0090003773
Swan Hill Rural City Council	ROBINVALE	CA2022\PP2269 and 2C\PP2269 HAPPY VALLEY TRACK	Illegal dumping. Requires assessment and/or clean up	0090003340
Swan Hill Rural City Council	Swan Hill	3 Hastings Street	Current petroleum storage site. Requires assessment and/or clean up	0090003573
Swan Hill Rural City Council	SWAN HILL	5 HASTINGS ST	Former petroleum storage site. Requires ongoing management	0090003817
Swan Hill Rural City Council	TOL TOL	3216 Murray Valley HWY	Industrial waste has been dumped at the site. Requires assessment and/or clean up	0090000256
Towong Shire Council	BETHANGA	4 MARTIN ST	Former Landfill. Requires ongoing management	0090003554
Warrnambool City Council	ALLANSFORD	137 Ziegler PDE	Contaminated soil is retained and managed onsite. Requires assessment and/or clean up	0090000492
Warrnambool City Council	WARRNAMBOOL	Braithwaite ST	Former Landfill. Requires assessment and/or clean up	0090003635
Warrnambool City Council	WARRNAMBOOL	Braithwaite ST	Former Landfill. Requires assessment and/or clean up	0090003636
Warrnambool City Council	WARRNAMBOOL	Braithwaite ST	Former Landfill. Requires ongoing management	0090003637
Wellington Shire Council	LONGFORD	746 LONGFORD-LOCH SPORT RD	Former Landfill. Requires ongoing management	0090003791
Wellington Shire Council	LONGFORD	746 LONGFORD-LOCH SPORT RD	Former Landfill. Requires ongoing management	0090003792
Wellington Shire Council	MAFFRA	57 Johnson ST	Current Industrial Site. Requires assessment and/or clean up	0090001587
Wellington Shire Council	YARRAM	Off Yarram-Traralgon RD	Former Landfill. Requires ongoing management	0090003055
Whitehorse City Council	BLACKBURN	21 Blackburn RD	Current Service Station. Requires ongoing management	0090002839
Whitehorse City Council	BLACKBURN	21 Blackburn RD	Current Service Station. Requires ongoing management	0090003034
Whitehorse City Council	BLACKBURN	24 Blackburn RD	Former Service Station. Requires assessment and/or clean up	0090003153
Whitehorse City Council	BLACKBURN	2 CENTRAL RD	Former Service Station. Requires assessment and/or clean up	0090002076
Whitehorse City Council	BOX HILL	14 Federation ST	Former Landfill. Requires ongoing management	0090003499
Whittlesea City Council	EPPING	215 COOPER ST	Current landfill. Requires ongoing management	0090003348
Whittlesea City Council	EPPING	490 COOPER ST	Former Landfill. Requires ongoing management	0090003502
Whittlesea City Council	EPPING	500 Cooper ST	Former Landfill. Requires ongoing management	0090003490

Whittlesea City Council	THOMASTOWN	240 HIGH ST	Former Service Station. Requires assessment and/or clean up	0090004077
Whittlesea City Council	THOMASTOWN	342 Settlement RD	Former Service Station. Requires assessment and/or clean up	0090001959
Whittlesea City Council	THOMASTOWN	51 High ST	Current Industrial Site. Requires assessment and/or clean up	0090004421
Wodonga Rural City Council	BARANDUDA	219 & Part Of 221 Whytes Rd	Current Industrial Site. Requires ongoing management	0090003307
Wodonga Rural City Council	WODONGA	3437 Beechworth-Wodonga RD	Former Landfill. Requires ongoing management	0090003548
Wyndham City Council	Laverton North	19 Little Boundary RD	Current Industrial Site. Requires assessment and/or clean up	0090000003
Wyndham City Council	LAVERTON NORTH	142 FITZGERALD RD	Current chemical storage facility. Requires assessment and/or clean up	0090004097
Wyndham City Council	LAVERTON NORTH	3 PROGRESS CT	Illegal dumping. Requires assessment and/or clean up	0090004467
Wyndham City Council	LAVERTON NORTH	41 LEAKES RD	Former Industrial Site. Requires assessment and/or clean up	0090000864
Wyndham City Council	LAVERTON NORTH	41 LEAKES RD	Former Industrial Site. Requires ongoing management	0090003389
Wyndham City Council	LITTLE RIVER	490 EDGARS RD	Illegal dumping. Requires assessment and/or clean up	0090004276
Wyndham City Council	Wyndham Vale	Volume 5098 Folio 515 Crown Allotments D and E Section 28	Industrial waste has been dumped at the site. Requires assessment and/or clean up	0090004920
Yarra City Council	FITZROY NORTH	433 SMITH ST	Former Industrial Site. Requires ongoing management	0090004363
Yarra City Council	RICHMOND	3-21a Kent St 1/4-14/4 Little Buckingham St	Former Industrial Site. Requires ongoing management	0090001920
Yarra Ranges Shire Council	COLDSTREAM	Ingram RD	Former Landfill. Requires ongoing management	0090003838
Yarra Ranges Shire Council	COLDSTREAM	Ingram RD	Former Landfill. Requires ongoing management	0090003839
Yarra Ranges Shire Council	HEALESVILLE	Mt Riddel RD	Former Landfill. Requires ongoing management	0090003840
Yarra Ranges Shire Council	HEALESVILLE	Mt Riddel RD	Former Landfill. Requires ongoing management	0090003841
Yarra Ranges Shire Council	KILSYTH	1 76 Fussell RD	Former Industrial Site. Requires assessment and/or clean up	0090000004
Yarra Ranges Shire Council	KILSYTH	1 76 Fussell RD	Former Industrial Site. Requires assessment and/or clean up	0090000006
Yarra Ranges Shire Council	KILSYTH	2 76 Fussell RD	Former Industrial Site. Requires assessment and/or clean up	0090000005
Yarra Ranges Shire Council	KILSYTH	2 76 Fussell RD	Former Industrial Site. Requires assessment and/or clean up	0090000007

Appendix D. Groundwater bores

DEPI ID	Bore ID	Easting	Northing	MGA	Date	Depth (m)	Type	Uses
	109574	293210.1	5822195.2	55	27/05/1971	37.49	GW	Groundwater Investigation
	109575	293210.1	5822195.2	55	27/05/1971	37.49	GW	Groundwater Investigation
	111535	293233.1	5821164.19	55	3/12/1991	37.5	GW	Domestic
	111566	294593.1	5819844.19	55	4/12/1991	43.5	GW	Domestic
	112660	290633.1	5826204.2	55	14/12/1991	21.34	GW	Stock
	113040	288773.1	5827334.21	55	18/11/1992	8.85	GW	Groundwater Investigation
	113041	287423.1	5826499.21	55	18/11/1992	6.26	GW	Groundwater Investigation
	115315	289048.1	5818874.19	55	12/01/1993	75	GW	Groundwater Investigation
	115714	294148.1	5826522.2	55	6/03/1993	34	GW	Domestic
	115829	290823.1	5827204.2	55	19/06/1993	64.5	GW	Domestic
	116308	288333.1	5825364.2	55	26/07/1993	200	GW	Industrial
	122101	295243.1	5819734.19	55	13/07/1994	70	GW	Domestic
	129589	293133.1	5825084.2	55	21/12/1996	25.5	GW	Stock
	132477	293193.1	5825304.2	55	17/04/1997	36	GW	Domestic
	132814	294373.1	5819944.19	55	30/05/1997	52	GW	Stock
	132840	290153.1	5819864.19	55	11/07/1997	80	GW	Stock
	135898	292333.1	5822514.2	55	7/11/1998	34.5	GW	Domestic
	138895	295793.1	5819244.19	55	4/11/1999	63	GW	Domestic
	139966	293753.1	5819899.19	55	26/09/1998	32	GW	Domestic
	139979	290913.1	5824734.2	55	31/03/1998	55	GW	Domestic
	140009	295893.1	5819644.19	55	13/06/1999	57	GW	Stock
	140207	288638.1	5820024.2	55	29/01/2000	48	GW	Domestic
	141252	289533.1	5827684.21	55	26/08/2000	30	GW	Stock
	141751	289113.1	5820184.2	55	29/04/1998	76	GW	Domestic
	141762	293013.1	5821824.2	55	19/05/1998	48	GW	Domestic
	141805	286413.1	5825184.21	55	20/10/1998	27	GW	Domestic
	142288	293363.1	5819834.19	55	20/12/1998	63	GW	Domestic
	143995	290498.1	5823284.2	55	8/01/2000	54	GW	Domestic
	144692	289213.1	5826784.21	55	5/05/2001	66	GW	Domestic and Stock
	145066	291613.1	5823854.2	55	17/11/2001	31	GW	Domestic
	306132	286707.1	5826885.21	55	31/12/1894	53.34	GW	Non Groundwater
	306133	287432.1	5827004.21	55	31/12/1894	50.29	GW	Non Groundwater
	306148	287366.1	5827791.21	55	24/03/1983	1.65	GW	Non Groundwater
	306149	287376.1	5827479.21	55	24/03/1983	1	GW	Non Groundwater
	306150	288054.1	5827370.21	55	24/03/1983	4.25	GW	Non Groundwater
	306151	288190.1	5827895.21	55	25/03/1983	3.35	GW	Non Groundwater
	306156	288548.1	5827962.21	55	29/03/1983	4.25	GW	Non Groundwater
	306157	288482.1	5827635.21	55	30/03/1983	4.25	GW	Non Groundwater
	306158	288209.1	5827395.21	55	30/03/1983	3.9	GW	Non Groundwater
	306159	287634.1	5827015.21	55	30/03/1983	4.25	GW	Non Groundwater

DEPI ID	Bore ID	Easting	Northing	MGA	Date	Depth (m)	Type	Uses
	306160	287774.1	5826701.21	55	31/03/1983	4.25	GW	Non Groundwater
	306161	286503.1	5819804.2	55	13/04/1983	1.76	GW	Non Groundwater
	306162	286470.1	5820388.2	55	13/04/1983	3.4	GW	Non Groundwater
	306163	286444.1	5820846.2	55	13/04/1983	1.6	GW	Non Groundwater
	306164	286356.1	5821291.2	55	14/04/1983	1.2	GW	Non Groundwater
	306165	286117.1	5821747.2	55	14/04/1983	2.7	GW	Non Groundwater
	306166	286097.1	5822231.2	55	14/04/1983	1.9	GW	Non Groundwater
	306168	286059.1	5823073.2	55	15/04/1983	4.25	GW	Non Groundwater
	306169	286583.1	5823053.2	55	19/04/1983	2.92	GW	Non Groundwater
	306231	289108.1	5827882.21	55	23/11/1983	3.4	GW	Non Groundwater
	311265	288830.1	5825586.2	55	29/10/1981	146	GW	Non Groundwater
	311289	293740.1	5826773.2	55	31/12/1969	62.17	GW	Non Groundwater
	311290	293365.1	5823666.2	55	9/03/1972	64.31	GW	Non Groundwater
	311291	293039.1	5820470.19	55	30/05/1972	116.27	GW	Non Groundwater
	311292	291732.1	5824115.2	55	12/07/1972	60.96	GW	Non Groundwater
	311293	290565.1	5826718.2	55	28/08/1972	79.24	GW	Non Groundwater
	311294	289843.1	5820796.2	55	4/04/1975	97.5	GW	Non Groundwater
	311295	287923.1	5822987.2	55	6/05/1975	79	GW	Non Groundwater
	311296	292978.1	5827962.2	55	2/03/1983	1.25	GW	Non Groundwater
	311297	290335.1	5825175.2	55	3/03/1983	1.2	GW	Non Groundwater
	311298	290388.1	5825634.2	55	3/03/1983	0.85	GW	Non Groundwater
	311299	290434.1	5826150.2	55	3/03/1983	0.7	GW	Non Groundwater
	311300	290508.1	5826669.2	55	4/03/1983	0.65	GW	Non Groundwater
	311301	290575.1	5827088.2	55	4/03/1983	0.8	GW	Non Groundwater
	311302	290608.1	5827587.2	55	7/03/1983	0.8	GW	Non Groundwater
	311311	287970.1	5826642.21	55	31/03/1983	4.25	GW	Non Groundwater
	311312	288519.1	5826671.21	55	31/03/1983	2.04	GW	Non Groundwater
	311313	289043.1	5826700.21	55	31/03/1983	1.82	GW	Non Groundwater
	311314	289486.1	5826722.2	55	6/04/1983	1.96	GW	Non Groundwater
	311315	289991.1	5826746.2	55	6/04/1983	0.7	GW	Non Groundwater
	311316	289674.1	5826765.2	55	6/04/1983	1.08	GW	Non Groundwater
	311317	289731.1	5827268.21	55	6/04/1983	3.48	GW	Non Groundwater
	311318	289780.1	5827711.21	55	7/04/1983	4.25	GW	Non Groundwater
	311320	290264.1	5824464.2	55	8/04/1983	0.7	GW	Non Groundwater
	311321	290215.1	5823960.2	55	8/04/1983	0.75	GW	Non Groundwater
	311322	290169.1	5823439.2	55	8/04/1983	1.75	GW	Non Groundwater
	311323	290102.1	5822975.2	55	11/04/1983	0.76	GW	Non Groundwater
	311324	290042.1	5822472.2	55	11/04/1983	0.65	GW	Non Groundwater
	311325	289988.1	5822006.2	55	11/04/1983	0.65	GW	Non Groundwater
	311326	289932.1	5821487.2	55	11/04/1983	2.72	GW	Non Groundwater

DEPI ID	Bore ID	Easting	Northing	MGA	Date	Depth (m)	Type	Uses
	311327	289869.1	5820986.2	55	12/04/1983	2.7	GW	Non Groundwater
	311328	287033.1	5823086.2	55	19/04/1983	2.66	GW	Non Groundwater
	311329	287556.1	5823025.2	55	20/04/1983	0.76	GW	Non Groundwater
	311330	288267.1	5822944.2	55	20/04/1983	1.66	GW	Non Groundwater
	311331	288430.1	5822702.2	55	20/04/1983	1.2	GW	Non Groundwater
	311332	288672.1	5822427.2	55	26/04/1983	0.48	GW	Non Groundwater
	311333	289270.1	5822358.2	55	26/04/1983	0.65	GW	Non Groundwater
	311334	289654.1	5822313.2	55	26/04/1983	1.35	GW	Non Groundwater
	311335	288529.1	5823429.2	55	27/04/1983	0.46	GW	Non Groundwater
	311336	288611.1	5824156.2	55	27/04/1983	0.76	GW	Non Groundwater
	311337	288677.1	5824712.2	55	27/04/1983	1.85	GW	Non Groundwater
	311338	288753.1	5825364.2	55	28/04/1983	2.05	GW	Non Groundwater
	311339	288784.1	5825777.2	55	28/04/1983	1.3	GW	Non Groundwater
	311340	288569.1	5825898.2	55	28/04/1983	0.45	GW	Non Groundwater
	311342	287213.1	5826004.21	55	17/06/1983	2.45	GW	Non Groundwater
	311343	288313.1	5826214.21	55	21/06/1983	10.4	GW	Non Groundwater
	326205	289815.1	5820543.2	55	12/04/1983	2.3	GW	Non Groundwater
	326206	289759.1	5820071.2	55	12/04/1983	0.76	GW	Non Groundwater
	326207	289704.1	5819627.19	55	12/04/1983	0.76	GW	Non Groundwater
	326208	289637.1	5819077.19	55	13/04/1983	0.64	GW	Non Groundwater
	326209	288676.1	5819149.2	55	9/06/1983	0.76	GW	Non Groundwater
	326210	288085.1	5819182.2	55	9/06/1983	0.7	GW	Non Groundwater
	326211	287411.1	5819277.2	55	9/06/1983	0.76	GW	Non Groundwater
	326212	286833.1	5819324.2	55	10/06/1983	4.1	GW	Non Groundwater
	326213	286441.1	5819187.2	55	22/09/1981	146	GW	Non Groundwater
	44079	287809	5819472	55	7/10/2009	62	GW	Domestic and Stock
	60482	286306.1	5826204.21	55	19/04/1951	-	GW	Unknown
	60485	287799.1	5826899.21	55	31/12/1958	-	GW	Unknown
	60486	286522.1	5826176.21	55	31/12/1958	41.14	GW	Unknown
	60487	286917.1	5826286.21	55	31/12/1958	30.48	GW	Unknown
	60488	286726.1	5827418.21	55	31/12/1958	45.11	GW	Unknown
	60490	287704.1	5826278.21	55	31/12/1958	-	GW	Unknown
	60491	287161.1	5826601.21	55	31/12/1958	-	GW	Unknown
	60495	286040.1	5826232.21	55	31/12/1958	42.06	GW	Unknown
	60500	286516.1	5825643.21	55	31/12/1970	-	GW	Unknown
	60501	286299.1	5824299.2	55	31/12/1970	-	GW	Unknown
	60505	287363.1	5827434.21	55	7/11/1983	55	GW	Unknown
	60506	289663.1	5822309.2	55	28/12/1983	24	GW	Domestic
	73191	294867.1	5825238.2	55	31/12/1906	45.72	GW	Domestic
	73192	294507.2	5827222.2	55	31/12/1906	82.9	GW	Domestic

DEPI ID	Bore ID	Easting	Northing	MGA	Date	Depth (m)	Type	Uses
	73193	293150.1	5827376.2	55	31/12/1907	40.53	GW	Domestic
	73194	293150.1	5827376.2	55	31/12/1907	56.84	GW	Domestic
	73195	288418.1	5822956.2	55	31/12/1909	46.32	GW	Domestic
	73196	289659.1	5821420.2	55	31/12/1919	73.45	GW	Domestic
	73197	293425.1	5824567.2	55	31/12/1919	16.76	GW	Domestic
	73198	290111.1	5824500.2	55	31/12/1919	52.42	GW	Domestic
	73199	293222.5	5822183.69	55	13/10/1983	37	GW	Observation
	73200	293223	5822180.3	55	20/10/1983	57	GW	Observation
	73201	288512.1	5823227.2	55	29/10/1957	43.8	GW	Stock
	73202	289668.1	5824670.2	55	12/10/1947	-	GW	Unknown
	73203	289757.1	5824689.2	55	12/10/1947	51.2	GW	Unknown
	73204	291254.1	5824971.2	55	11/01/1957	30.4	GW	Stock
	73205	293313.1	5821153.19	55	31/12/1960	-	GW	Unknown
	73206	288526.1	5827209.21	55	31/12/1958	-	GW	Unknown
	73207	288939.1	5827776.21	55	31/12/1958	-	GW	Unknown
	73208	288152.1	5825154.2	55	31/12/1958	35.9	GW	Domestic
	73210	292573.1	5826789.2	55	31/12/1970	45.7	GW	Domestic
	73211	291821.1	5826811.2	55	31/12/1970	21.9	GW	Domestic
	73212	291988.1	5826991.2	55	31/12/1967	12.8	GW	Unknown
	73213	292351.1	5828076.2	55	31/12/1970	21.3	GW	Stock
	73214	294879.2	5827821.2	55	31/12/1970	35	GW	Stock
	73217	292870.1	5828026.2	55	6/10/1900	51.8	GW	Unknown
	73219	291148.1	5826852.2	55	31/12/1970	30.4	GW	Domestic
	73221	294171.1	5825282.2	55	31/12/1970	18.3	GW	Domestic
	73222	290982.1	5824270.2	55	31/12/1970	36.5	GW	Domestic
	73223	292073.1	5824596.2	55	31/12/1970	21.3	GW	Domestic
	73224	292043.1	5824397.2	55	31/12/1970	16.7	GW	Domestic
	73225	292386.1	5825103.2	55	31/12/1970	8.5	GW	Domestic
	73226	293760.1	5825926.2	55	31/12/1970	13.7	GW	Domestic
	73227	292909.1	5826745.2	55	31/12/1970	29.2	GW	Stock
	73228	292778.1	5826870.2	55	31/12/1970	30.4	GW	Domestic
	73229	292024.1	5826485.2	55	31/12/1970	-	GW	Domestic
	73230	291496.1	5825788.2	55	31/12/1970	30.4	GW	Stock
	73231	290622.1	5826680.2	55	31/12/1970	33.5	GW	Stock
	73232	291448.1	5826465.2	55	31/12/1970	12.2	GW	Domestic
	73233	287130.1	5825652.21	55	31/12/1958	30.4	GW	Stock
	73234	287054.1	5821428.2	55	31/12/1970	39.6	GW	Stock
	73235	289794.1	5825611.2	55	31/12/1970	30.4	GW	Stock
	73236	287777.1	5823488.2	55	31/12/1970	37.1	GW	Domestic
	73237	294335.1	5821025.19	55	31/12/1970	27.4	GW	Domestic

DEPI ID	Bore ID	Easting	Northing	MGA	Date	Depth (m)	Type	Uses
	73238	290860.1	5824674.2	55	31/12/1970	19.5	GW	Domestic
	73239	289642.1	5826559.2	55	31/12/1970	41.1	GW	Stock
	73240	289294.1	5821270.2	55	31/12/1970	48.7	GW	Domestic
	73241	293871.1	5821202.19	55	31/12/1970	15.2	GW	Domestic
	73242	294038.1	5821108.19	55	31/12/1970	15.2	GW	Domestic
	73243	294072.1	5821279.19	55	31/12/1970	15.2	GW	Domestic
	73244	293707.1	5821484.19	55	31/12/1970	15.2	GW	Unknown
	73245	293237.1	5821960.2	55	31/12/1970	19.5	GW	Domestic
	73246	293130.1	5822005.2	55	31/12/1970	18.2	GW	Domestic
	73247	292800.1	5821429.19	55	31/12/1970	35	GW	Stock
	73248	291933.1	5822941.2	55	31/12/1970	24.4	GW	Domestic
	73249	291773.1	5822793.2	55	31/12/1968	13.7	GW	Unknown
	73250	291768.1	5823036.2	55	31/12/1970	15.8	GW	Domestic
	73251	295159.1	5820681.19	55	31/12/1970	15.2	GW	Stock
	73252	287709.1	5821406.2	55	31/12/1970	34.4	GW	Stock
	73253	289504.1	5823593.2	55	31/12/1970	-	GW	Unknown
	73254	289340.1	5823685.2	55	31/12/1970	27.4	GW	Unknown
	73255	288834.1	5823807.2	55	31/12/1970	45.7	GW	Unknown
	73256	288569.1	5822790.2	55	31/12/1970	-	GW	Unknown
	73257	291397.1	5824926.2	55	31/12/1970	21.3	GW	Stock
	73258	287494.1	5825620.2	55	31/12/1970	-	GW	Unknown
	73259	288606.1	5827167.21	55	31/12/1970	36.5	GW	Stock
	73261	295015.1	5821186.19	55	31/12/1970	-	GW	Unknown
	73262	295686.1	5820975.19	55	31/12/1970	-	GW	Unknown
	73263	292865.1	5821970.2	55	31/12/1970	-	GW	Unknown
	73264	291675.1	5824713.2	55	31/12/1970	-	GW	Unknown
	73265	291147.1	5824070.2	55	31/12/1970	-	GW	Unknown
	73266	293235.1	5823350.2	55	31/12/1970	-	GW	Unknown
	73267	294663.1	5825189.2	55	31/12/1970	-	GW	Unknown
	73271	291738.1	5822312.2	55	2/08/1972	19.81	GW	Domestic
	73272	293305.1	5825178.2	55	1/04/1974	18.89	GW	Domestic
	73273	292090.1	5824382.2	55	7/11/1974	12.19	GW	Domestic
	73274	295630.1	5820494.19	55	30/06/1976	25.9	GW	Domestic
	73275	292357.1	5826788.2	55	12/05/1977	50.5	GW	Domestic
	73276	293180.1	5826576.2	55	5/12/1977	60.96	GW	Domestic
	73277	293273.1	5825750.2	55	10/11/1977	34	GW	Domestic
	73278	290153.1	5822634.2	55	10/12/1981	84	GW	Unknown
	73279	290153.1	5822604.2	55	18/01/1982	31	GW	Domestic
	73280	293363.1	5826624.2	55	11/06/1982	41	GW	Domestic
	73281	289363.1	5822734.2	55	17/12/1980	23	GW	Domestic

DEPI ID	Bore ID	Easting	Northing	MGA	Date	Depth (m)	Type	Uses
	73282	288493.1	5822704.2	55	19/04/1982	31	GW	Domestic
	73283	293653.1	5826824.2	55	31/07/1982	74	GW	Domestic
	73284	295419.1	5820435.19	55	24/02/1982	23.97	GW	Domestic
	73285	288493.1	5821964.2	55	20/04/1982	34	GW	Domestic
	73286	288313.1	5824584.2	55	2/04/1984	43.9	GW	Domestic
	73287	290073.1	5820984.2	55	4/04/1984	37.8	GW	Domestic
	73288	288433.1	5822344.2	55	18/01/1984	37	GW	Stock
	73289	289393.1	5822314.2	55	3/04/1984	26	GW	Domestic
	73290	291713.1	5822784.2	55	11/06/1984	25.9	GW	Domestic
	73291	294113.2	5827684.2	55	25/07/1984	56	GW	Unknown
	73292	291613.1	5822724.2	55	1/10/1984	25	GW	Domestic
	73293	288713.1	5822284.2	55	16/04/1985	72	GW	Unknown
	73295	293133.1	5820364.19	55	28/03/1986	93	GW	Domestic
	73296	293333.1	5820744.19	55	28/01/1986	39.5	GW	Domestic
	73297	291193.1	5822324.2	55	27/11/1984	35	GW	Domestic
	73298	291703.1	5823584.2	55	7/04/1983	13.71	GW	Domestic
	73300	289963.1	5821044.2	55	17/03/1987	62	GW	Domestic
	73301	290393.1	5820964.2	55	23/03/1987	32	GW	Domestic
	73302	291513.1	5824434.2	55	15/05/1987	27	GW	Domestic
	73304	294823.1	5821094.19	55	19/05/1987	49	GW	Domestic
	73305	293233.1	5824139.2	55	14/05/1987	30	GW	Domestic
	73306	289433.1	5824684.2	55	11/01/1988	85	GW	Unknown
	73308	290213.1	5821684.2	55	7/04/1988	26	GW	Domestic
	73309	289383.1	5823954.2	55	30/06/1983	45.1	GW	Unknown
	73310	289763.1	5823894.2	55	30/06/1983	25.2	GW	Unknown
	73311	290113.1	5823854.2	55	30/06/1983	45	GW	Unknown
	73312	290063.1	5823414.2	55	30/06/1983	25.16	GW	Unknown
	73313	290003.1	5822974.2	55	30/06/1983	45.27	GW	Unknown
	73314	289673.1	5823104.2	55	30/06/1983	25.1	GW	Unknown
	73315	289323.1	5823244.2	55	30/06/1983	45.1	GW	Unknown
	73316	289353.1	5823574.2	55	30/06/1983	25.04	GW	Unknown
	73317	289053.1	5824754.2	55	30/06/1983	25.1	GW	Unknown
	73319	290193.1	5822424.2	55	24/03/1981	36	GW	Domestic
	73324	291563.1	5824154.2	55	17/10/1988	30	GW	Domestic
	73325	290283.1	5823574.2	55	12/05/1988	50	GW	Domestic
	73326	290213.1	5821804.2	55	23/03/1987	94	GW	Unknown
	73327	291063.1	5827184.2	55	22/08/1988	55	GW	Domestic
	73328	289193.1	5820824.2	55	9/09/1988	77	GW	Domestic
	73329	290633.1	5826984.2	55	1/03/1990	64	GW	Domestic
	73330	293673.1	5826484.2	55	24/03/1990	53	GW	Domestic

DEPI ID	Bore ID	Easting	Northing	MGA	Date	Depth (m)	Type	Uses
	73331	289733.1	5822484.2	55	18/05/1990	80	GW	Domestic
	73332	287022.1	5824505.2	55	1/01/1988	36.5	GW	Stock
	73333	292196.1	5823282.2	55	1/01/1988	70	GW	Domestic
	73334	291988.1	5826991.2	55	1/01/1988	12.8	GW	Unknown
	73335	290259.1	5822077.2	55	1/01/1988	12.2	GW	Stock
	73336	291917.1	5823284.2	55	1/01/1988	21.9	GW	Stock
	73337	292265.1	5826967.2	55	1/01/1988	-	GW	Domestic
	73338	293064.1	5826826.2	55	1/01/1988	60.9	GW	Domestic
	73339	293863.1	5825534.2	55	12/03/1991	26	GW	Domestic
	73342	292613.1	5821544.2	55	13/08/1991	34.5	GW	Domestic
	73343	288313.1	5824864.2	55	8/01/1991	27.67	GW	Groundwater Investigation
	73344	288603.1	5824474.2	55	9/01/1991	34.74	GW	Groundwater Investigation
	73345	288403.1	5824634.2	55	10/01/1991	27.68	GW	Groundwater Investigation
	73346	288163.1	5824234.2	55	11/01/1991	29.72	GW	Groundwater Investigation
	89219	290157.1	5819281.19	55	31/12/1960	45.72	GW	Domestic
	89220	290157.1	5819294.19	55	31/12/1960	45.72	GW	Domestic
	89221	290157.1	5819294.19	55	31/12/1960	-	GW	Unknown
	89222	290157.1	5819281.19	55	31/12/1960	-	GW	Unknown
	89223	290157.1	5819294.19	55	31/12/1960	-	GW	Unknown
	89224	290157.1	5819294.19	55	31/12/1960	-	GW	Unknown
	89225	290157.1	5819294.19	55	31/12/1960	-	GW	Unknown
	89227	294585.1	5820103.19	55	31/12/1970	39.6	GW	Stock
	89228	291321.1	5819898.19	55	31/12/1970	10.6	GW	Domestic
	89229	288159.1	5818500.19	55	31/12/1970	49.6	GW	Unknown
	89230	290930.1	5819611.19	55	31/12/1970	47.5	GW	Domestic
	89232	295482.1	5819737.19	55	31/12/1970	39.6	GW	Stock
	89233	294426.1	5819276.19	55	31/12/1970	24.3	GW	Domestic
	89234	294834.1	5819840.19	55	31/12/1970	18.2	GW	Domestic
	89238	295290.1	5819758.19	55	31/12/1970	24.3	GW	Domestic
	89239	292932.1	5819887.19	55	31/12/1970	-	GW	Unknown
	89241	290329.1	5819927.19	55	31/12/1970	-	GW	Unknown
	89242	289995.1	5819511.19	55	31/12/1970	-	GW	Unknown
	89243	290093.1	5820425.2	55	31/12/1970	-	GW	Unknown
	89244	290342.1	5819927.19	55	31/12/1970	-	GW	Unknown
	89245	289803.1	5819361.19	55	31/12/1970	-	GW	Unknown
	89246	290105.1	5819104.19	55	31/12/1970	-	GW	Unknown
	89247	290105.1	5819117.19	55	31/12/1970	-	GW	Unknown
	89248	290105.1	5819117.19	55	31/12/1970	-	GW	Unknown
	89249	290105.1	5819117.19	55	31/12/1970	-	GW	Unknown
	89250	290105.1	5819117.19	55	31/12/1970	-	GW	Unknown

DEPI ID	Bore ID	Easting	Northing	MGA	Date	Depth (m)	Type	Uses
	89251	288307.1	5818437.19	55	31/12/1970	-	GW	Unknown
	89261	289637.1	5818680.19	55	25/09/1971	64	GW	Stock
	89265	294368.1	5820029.19	55	4/02/1976	22	GW	Domestic
	89267	294408.1	5819289.19	55	2/03/1977	27.5	GW	Domestic
	89270	289947.1	5820497.2	55	1/12/1979	53	GW	Domestic
	89271	290986.1	5820085.19	55	11/11/1979	36	GW	Domestic
	89272	294216.1	5820077.19	55	3/10/1980	55	GW	Domestic
	89280	294813.1	5819374.19	55	1/05/1984	41	GW	Domestic
	89281	294533.1	5819644.19	55	29/09/1984	46	GW	Stock
	89282	294543.1	5819614.19	55	31/10/1984	31	GW	Stock
	89284	294353.1	5818404.19	55	1/08/1985	73	GW	Domestic
	89287	294743.1	5819984.19	55	27/04/1988	59	GW	Domestic
	89288	295393.1	5819884.19	55	2/03/1988	64	GW	Domestic
	89289	295423.1	5819644.19	55	18/06/1988	89	GW	Domestic
	89290	294273.1	5818454.19	55	22/10/1987	55	GW	Domestic
	89293	290188.1	5820455.2	55	1/01/1988	54.8	GW	Unknown
	89294	290439.1	5819796.19	55	1/01/1988	27.4	GW	Stock
	89295	290193.1	5820116.2	55	1/01/1988	30.4	GW	Unknown
	89296	290537.1	5820301.2	55	1/01/1988	36.5	GW	Unknown
	89297	291414.1	5820505.19	55	1/01/1988	27.4	GW	Unknown
	89298	291317.1	5820386.19	55	1/01/1988	27.4	GW	Unknown
	89299	290027.1	5819273.19	55	1/01/1988	108.8	GW	Unknown
	89300	290133.1	5819320.19	55	1/01/1988	45.7	GW	Unknown
	89302	290405.1	5820452.2	55	1/01/1988	57.91	GW	Unknown
	89303	294448.1	5819176.19	55	1/01/1988	-	GW	Stock
	89304	294092.1	5819214.19	55	1/01/1988	-	GW	Stock
	9038787	287871	5820768	55	29/09/2009	46	GW	Domestic and Stock
	9038798	287355	5820404	55	6/10/2009	55	GW	Domestic and Stock
	9038799	287417	5820672	55	1/10/2009	53	GW	Domestic and Stock
	9038905	287724	5820878	55	30/09/2009	50	GW	Domestic and Stock
	9038906	290166	5824399	55	25/09/2009	50.5	GW	Domestic and Stock
	WRK032025	294593.2	5826954.2	55	24/02/1992	63	GW	Industrial
	WRK032138	288193.1	5826804.21	55	1/02/1994	60	GW	Irrigation
	WRK032689	288193.1	5826784.21	55	10/11/1998	52	GW	Irrigation
	WRK070718	286367	5826472	55	7/09/2012	23	GW	Observation
	WRK070719	286367	5826472	55	6/09/2012	27	GW	Observation
	WRK070720	286370	5826475	55	5/09/2012	21.6	GW	Observation
	WRK956884	293203	5825184	55	26/05/1993	-	GW	Observation
	WRK956885	293166	5825151	55	23/11/1993	-	GW	Observation
	WRK956886	293503	5825384	55	24/11/1992	-	GW	Observation

DEPI ID	Bore ID	Easting	Northing	MGA	Date	Depth (m)	Type	Uses
	WRK956887	293549	5825255	55	3/10/1993	-	GW	Observation
	WRK956888	293530	5825087	55	29/03/1999	-	GW	Observation
	WRK956889	293408	5824267	55	11/01/1994	-	GW	Observation
	WRK956890	293085	5824857	55	28/02/1994	-	GW	Observation
	WRK956891	293447	5824796	55	23/05/1996	-	GW	Observation
	WRK963353	294791.1	5820846.19	55	14/11/2003	22	GW	Domestic and Stock
	WRK964224	293008.1	5819046.19	55	8/04/2004	100	GW	Domestic and Stock
	WRK964333	293769.1	5825725.2	55	27/01/2004	31.5	GW	Domestic and Stock
	WRK964344	291276.1	5827088.2	55	28/01/2004	53	GW	Domestic and Stock
	WRK964417	291705.1	5822633.2	55	3/02/2004	39	GW	Domestic and Stock
	WRK966454	292444.1	5827224.2	55	4/08/2004	40.5	GW	Domestic and Stock
	WRK970782	292543	5824341	55	3/08/2005	30	GW	Domestic and Stock
	WRK970783	291873	5824166	55	29/07/2005	30	GW	Domestic and Stock
	WRK971271	292501	5824347	55	30/09/2005	16.5	GW	Domestic and Stock
	WRK973002	291899	5827991	55	21/03/2006	50	GW	Domestic and Stock
	WRK973266	292278	5822598	55	5/04/2006	40	GW	Domestic and Stock
	WRK973267	290860	5824832	55	7/04/2006	28	GW	Domestic and Stock
	WRK976605	294088	5821092	55	23/01/2007	20	GW	Domestic and Stock
	WRK978648	288996	5827496	55	Unknown	60	GW	Unknown
	WRK978657	288996	5827496	55	24/01/2007	50	GW	Domestic and Stock
	WRK978969	291640	5824398	55	28/02/2007	23	GW	Domestic and Stock
	WRK979005	290292	5825867	55	28/02/2007	46	GW	Domestic and Stock
	WRK979052	289314	5826901	55	27/02/2007	38	GW	Domestic and Stock
	WRK980406	288807	5827149	55	30/04/2007	38	GW	Domestic and Stock
	WRK980483	288470	5826900	55	29/04/2007	37	GW	Domestic and Stock
	WRK980582	288697	5827749	55	2/05/2007	38	GW	Domestic and Stock
	WRK980623	289220	5827106	55	1/05/2007	38	GW	Domestic and Stock
	WRK980894	289274	5826883	55	30/04/2007	38	GW	Domestic and Stock
	WRK982541	288030	5821238	55	Unknown	25	GW	Unknown
	WRK982840	292395	5826939	55	Unknown	150	GW	Unknown
	WRK982929	288565	5827185	55	Unknown	150	GW	Unknown
	WRK982963	289259	5827244	55	Unknown	150	GW	Unknown
	WRK983061	289807	5827155	55	Unknown	150	GW	Unknown
	WRK983186	287698	5819658	55	Unknown	150	GW	Unknown
	WRK984493	286180	5823725	55	Unknown	35	GW	Unknown
	WRK984717	289352	5827200	55	Unknown	150	GW	Unknown
	WRK985188	293214	5822200	55	17/02/2009	31.4	GW	State Observation Network
	WRK985191	293214	5822200	55	17/02/2009	65	GW	State Observation Network
	WRK985303	290716	5826612	55	Unknown	150	GW	Unknown
	WRK985465	294461	5821183	55	Unknown	25	GW	Unknown

DEPI ID	Bore ID	Easting	Northing	MGA	Date	Depth (m)	Type	Uses
	WRK986329	294392	5824929	55	22/12/2008	23	GW	Stock
	WRK988598	287330	5818327	55	Unknown	25	GW	Unknown
	WRK988599	287282	5818393	55	Unknown	25	GW	Unknown
	WRK989642	288745	5825917	55	Unknown	25	GW	Unknown
	WRK991322	288646	5826093	55	22/05/2009	32	GW	Groundwater Investigation
	WRK991323	288625	5825987	55	Unknown	25	GW	Unknown
	WRK991324	288767	5826072	55	Unknown	25	GW	Unknown
	WRK991447	287667	5819468	55	Unknown	150	GW	Unknown
	WRK992340	287881	5820761	55	Unknown	150	GW	Unknown
	WRK992373	287369	5820382	55	Unknown	150	GW	Unknown
	WRK992374	287453	5820633	55	Unknown	150	GW	Unknown
	WRK992411	287425	5818465	55	Unknown	25	GW	Unknown
	WRK992492	287728	5820878	55	Unknown	150	GW	Unknown
	WRK992493	290151	5824458	55	Unknown	150	GW	Unknown

Appendix E. Examples photographs of potential sources of contamination

Site Inspection Photographs



Stockyard with piles of materials, pens, sheds, water tanks



Example of stockpiled materials



Greenhouse with tilled soil of market garden in background



Orchard/ plantation typical of several sites.



Horse agistment yards



Stockyard infrastructure