



FINAL DRAFT 30 JUNE 2023

City of Greater Geelong History Review of Planning Scheme Amendment Areas

Environmental Audit Overlay Recommendations, South Geelong and Pakington St / Gordon Avenue UDFs, Geelong, Victoria



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EXECUTIVE SUMMARY

Landserv Pty Ltd. (Landserv) was engaged by the City of Greater Geelong (Council) to complete a review of land use history throughout the South Geelong and Pakington Street (Geelong West) and Gordon Avenue Urban Design Framework (UDF) areas, to support the application of Environmental Audit Overlays (EAO) in the UDFs. We understand Council intends to apply the EAOs as part of a Planning Scheme Amendment (PSA) proposed to give effect to the UDFs.

In this report the South Geelong UDF is referred to as the 'Moorabool Street UDF' and the Pakington Street (Geelong West) and Gordon Avenue UDF is referred to as the 'Pakington Street UDF'. At the time of preparing this report, the Pakington Street UDF has two separate precincts of which the 'Gordon Avenue precinct' component has been approved by Council and the 'North Pakington Street precinct' is in the process of being finalised. The Moorabool Street UDF in its entirety has also been approved by Council.

The sites layouts (and EAO recommendations) are shown in **Figures 1A, 1B and 1C** in **Appendix A** attached.

This investigation was completed to inform the PSA currently being prepared by Council for each of the UDFs. Its intention is to assist the Council in managing potentially contaminated land (PCL) in accordance with Ministerial Direction No. 1 (MD#1) and Planning Practice Note 30 - Potentially Contaminated Land (PPN30).

The objectives of Landserv's investigation were to provide a summary of properties in the UDFs within the context of PCL and inform a tailored approach to the application of EAOs that aligns with the Council's responsibilities as the Planning Authority (PA).

Based on the findings the following table presents the number of properties within each UDF for which a EAO is recommended, and properties which require appropriate consideration under relevant clauses of the Victorian Planning Provisions (VPP) (which we refer to as having 'reduced planning requirements').

Potential for Contamination (PPN30)	Pakington Street UDF	Moorabool Street UDF
High Potential for PCL (EAO Recommended – Red on Figures 1A, 1B, 1C in Appendix A)	43	6
High or Medium Potential for PCL (Amber on Figures 2A, 2B, 2C in Appendix A, reduced planning requirements apply)	248	136
Low Potential for PCL (No further action)	759	1618

This assessment is preliminary in nature and has not included a complete site investigation for individual properties. If further information becomes available throughout future development or assessments, or if significant contamination is identified, we recommend that this database be updated accordingly.

This executive summary must be read in conjunction with the ensuing report, including all tables, figures, and appendices. Limitations and assumptions used to reach the conclusions contained within the report have not been included in this executive summary.

1 INTRODUCTION

1.1 General

Landserv Pty Ltd. (Landserv) was engaged by the City of Greater Geelong (Council) to complete a review of land use history throughout the South Geelong and Pakington Street (Geelong West) and Gordon Avenue Urban Design Framework (UDF) areas, to support the application of Environmental Audit Overlays (EAO) in the UDFs. We understand Council intends to apply the EAOs as part of a Planning Scheme Amendment (PSA) proposed to give effect to the UDFs.

This investigation was completed to inform the PSA currently being prepared by Council for each of the UDFs. Its intention is to assist the Council in managing potentially contaminated land (PCL) in accordance with Ministerial Direction No. 1 (MD#1) and Planning Practice Note 30 - Potentially Contaminated Land (PPN30).

1.2 Study Areas

For the purposes of this project the proposed boundaries of the UDF areas form 'the sites', although we have included reviewing the history of some surrounding properties for their potential to impact properties within the sites.

In this report the South Geelong UDF is referred to as the 'Moorabool Street UDF' and the Pakington Street (Geelong West) and Gordon Avenue UDF is referred to as the 'Pakington Street UDF'. At the time of preparing this report, the Pakington Street UDF has two separate precincts of which the 'Gordon Avenue precinct' component has been approved by Council and the 'North Pakington Street precinct' is in the process of being finalised. The Moorabool Street UDF in its entirety has also been approved by Council.

The sites are shown in **Figures 1A, 1B and 1C** in **Appendix A** attached.

1.3 Objectives and Summarised Scope of Works

The objective of this review was to:

- Provide a summary of properties within the study areas in relation to PCL and inform a tailored approach to the application of EAOs that aligns with Council's responsibilities as the Planning Authority (PA).

To achieve the project objective, Landserv completed the following tasks:

- A desktop-based review of properties within the UDF to determine historic land uses in relation to PCL, in the context of a PSA change of land use in some areas of the UDFs. The desktop review consisted of assessing the following information sources:
 - Historical aerial imagery;
 - Business directories;
 - Planning permits;
 - EPA databases;
 - Public databases;
 - Barwon Water records; and
 - Local historic reports.
- A review of the properties surrounding each UDF and evaluated their potential impact to properties within the study area.

- A site inspection of the study areas, examining properties from existing roadways and publicly accessible areas ('kerbside' inspections).
- Preparation of a spreadsheet of all properties within the UDF to record their PCL status and highlight those that are recommended for the application of an EAO under MD#1 and PPN30.
- Preparation of this detailed report outlining the findings and recommendations from the desktop review and site visits.

The inputs to the desktop review have been cross-checked to understand the potential for contaminated land and extent of potential contamination sources. We compiled the spreadsheet based on the desktop review, to provide a list of sites recommended for EAOs, as well as sites for which a planning permit application should trigger 'reduced planning requirements' under the Victorian Planning Provisions (VPP) (clauses 65.01 and 13.04-1S, as well as Section 60 of the Planning and Environment Act 1987).

2 BACKGROUND

2.1 Urban Design Frameworks

The UDFs align with the long-term strategic vision for Council, including land use and built form controls. Within each UDF, specific areas have been earmarked for rezoning under a PSA to provide development opportunities to meet the Councils Settlement Strategy 2020 goals of providing at least 50% of housing in infill locations, and Councils Retail Strategy 2020-2036 in altering the distribution of commercial and retail development within each precinct.

Development of land provides the opportunity to manage contamination and mitigate potential long-term risk to human health, environment and building and structure. The process of rezoning provides the Council with the opportunity to place EAOs over specific properties where rezoning to a 'sensitive' use is triggered.

The PSAs proposed by Council include areas with a long-term industrial past and in these areas, it is important to ensure sufficient controls are implemented to manage potential contamination. To align with Council's strategic directive, the tailored approach of EAO application for this project is intended to apply the required controls over individual sites only and avoid indiscriminately placing stringent environmental audit requirements where they are not necessary.

2.2 Planning and Environment Act 1987 and Planning Provisions

When preparing a planning scheme or PSA, Section 12 of the Planning and Environment Act 1987 (P&E Act) requires the PA 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*'.

Section 60 of the P&E Act requires a RA before deciding on a permit application, to consider '*any significant effects which the responsible authority (RA) considers the use or development may have on the environment or which the responsible authority considers the environment may have on the use or development*'. This is applicable to PCL.

Another key function of the P&E Act is that it provides for the preparation of the VPP and local planning schemes. The following clauses of the VPP are relevant to PCL and this project:

- Clause 45.03 of the VPP outlines Environmental Audit Overlay (EAO) conditions, as discussed further in **Section 2.5** below.
- Clause 65.01 of the VPP requires a RA, before deciding on a permit application or approval of a plan to consider as appropriate '*Any significant effects the environment, including the contamination of land, may have on the use or development*'.
- Clause 13.04-1S aims to ensure that contaminated and potentially contaminated land is or will be suitable for its intended future use and development, and that this land is used and developed safely.

Importantly, even if there is no requirement for a PRSA or Environmental Audit, the obligations under clauses 65.01 and 13.04-1S apply as obligations of the RA in addition to EAO recommendations.

In this report, 'reduced planning requirements' refers to RA obligations under Cl65.01 and Cl13.04-1S of the VPP. Addressing these obligations can require different responses,

depending on the circumstances. Landserv has listed five different categories of sites in the database for which reduced planning requirements apply (Categories b, c, d, e and f – see **Section 3.4, Table 3**). Each of these categories has a slightly different recommended approach to addressing the RA's planning scheme obligations.

2.3 Rezoning

Properties proposed for rezoning under the PSA are identified in the UDFs, have presumably been selected in alignment with the Council's long term development goals for the city. Through rezoning land within the UDFs, the Council aims to provide opportunity for redevelopment of these properties in alignment with their vision.

The rezoning that is proposed under the PSAs include:

- From Commercial 2 Zone (C2Z) to Commercial 1 Zone (C1Z);
- From Commercial 2 Zone (C2Z) to Mixed Use Zone (MUZ);
- From Public Use Zone (PUZ) to Mixed Use Zone (MUZ);
- From Commercial 2 Zone (C2Z) to Residential Growth Zone (RGZ); and
- General Residential Zone 1 (GRZ1) to Commercial 1 Zone (C1Z)

Some of the proposed PSAs will allow for a more sensitive land use (i.e., residential dwellings and child care centres), triggering the requirements under MD#1 for PCL (discussed further in **Section 2.4** below).

Where the proposed rezoning does not provide for a new sensitive land use, the specific requirements of MD#1 are not triggered. However, if an existing sensitive use site is determined to be PCL, clauses 65.01 and 13.04-1S of the VPP apply and the PA may choose to apply an EAO as a tool for ensuring that the relevant requirements are met by requiring a preliminary risk screening assessment (PRSA) or Environmental Audit if / when a planning permit is applied for.

2.4 Ministerial Direction No. 1 and PPN30

MD#1 was developed to align with the Environmental Protection Act 2017 (EPA Act 2017), to ensure that PCL is suitable for a use which is proposed to be allowed under a PSA and which could significantly adversely be affected by contamination. Specifically, this is applicable where a 'sensitive' use such as residential, public, child care or primary school is allowed under the amendment.

PCL refers to land which is currently or has historically been used for an activity or an event that may have resulted in contamination. PPN30 provides guidance for planners around how to identify PCL, where planning approvals or controls are required and determine appropriate levels of assessment, provisions, and conditions to manage.

PPN30 identifies those land uses with high and medium potential to cause site contamination and provides guidance as to the assessment of PCL, triggers for PRSAs / Environmental Audits and PSA requirements.

PPN30 also identifies those activities in adjacent properties that may impact on site contamination conditions. Accordingly, this assessment has including consideration of surrounding properties / activities (such as dry cleaners, fuel stations and garages). **Table 1** below, taken from PPN30 shows the decision-making guidance for applying an EAO.

Table 1. PPN30 (table 3) Recommended approach to assessing potentially contaminated land

Planning Proposal		Potential for Contamination	
		High	Medium
Uses defined in Ministerial Direction No. 1, the EAO, and clause 13.04-1S			
<ul style="list-style-type: none"> Sensitive uses: Residential use, childcare centre, kindergarten, pre-school centre, primary school, even if ancillary to another use. Children's playground Secondary school 	New use, or buildings and works associated with a new use	A	B
	Buildings and works associated with an existing use	B	B
Other land use			
Open space Agriculture Retail or office Industry or warehouse	New use, or buildings and works associated with a new or existing use	C	D

	Planning Scheme Amendment	Planning Permit Application
A	PRSA or audit option applies Proceeding directly to an audit is recommended.	PRSA or audit option applies Proceeding directly to an audit is recommended.
B	PRSA or audit option applies PRSA to determine need for audit is recommended.	PRSA or audit option applies PRSA to determine need for audit is recommended.
C	PSI to inform need for audit is recommended	PSI to inform need for audit is recommended
D	Planning authority to document consideration of potential for contamination to impact proposal	Responsible authority to document consideration of potential for contamination to impact proposal

Note: Where land is used for more than one purpose, the most sensitive land use should be used to inform the approach to determining if an audit is required.

Properties proposed for rezoning to allow a more sensitive use under the PSA trigger the need for a PRSA / Environmental Audit or an EAO if the current or previous land uses have high potential for contamination.

2.5 Environmental Audit Overlay (EAO)

The placement of an EAO onto a property provides a planning control to allow the property to continue to be used in its current capacity, however, defers the application of a PSRA and / or environment audit to when the site is developed, or an audit is voluntarily entered into. In that regard, the VPP effectively provides for the EAO to be applied to PCL as an option for the PA when it is difficult or inappropriate to meet environmental audit system requirements at the amendment stage.

Clause 45-03-1 under the Geelong Council Planning Scheme (which is derived from the VPP) requires that before land being rezoned to a more sensitive use (i.e., residential use, child care centre, kindergarten, pre-school, primary school) development commences, either a PRSA stating that an environmental audit is not required, or an environmental audit must be completed in order to satisfy its suitability for its intended or proposed use.

For this project Landserv has recommended EAOs for:

- a) PCL properties being rezoned to allow a more sensitive land use under the proposed PSA.

2.6 Possible Future Review of PPN30

The Department of Energy, Environment and Climate Action (DEECA) in partnership with Engage Victoria, EPA Victoria and in consultations with planners, developers, and other interested parties recently reviewed the Victorian state planning framework in relation to contaminated land. A report from this consultation was released in March 2023 titled, *Planning for Environment Protection, report on stakeholder workshops and submissions*, and highlighted the feedback in relation to the application of planning framework.

That report indicated that PPN30 will be reviewed in the future to better communicate the requirements of the planning and development process as well as application of the assessment tools within the planning process and ensure consistency with National Environment Protection (Assessment of Site Contamination) Measure 1999 as amended 2013 (NEPM).

The report also identified the need for policy response in the 'long-term' in regard to the application of EAOs. This is indicated to be in response to EAOs being applied indiscriminately and without apparent supporting information in some planning schemes.

Landserv is not able to anticipate the outcomes of a PPN30 review in detail. However, this project has been completed with the objective of ensuring EAOs are not applied indiscriminately and that the database records supporting information and reasons for EAOs. In that way it is anticipated that a future review of PPN30 is unlikely to substantially affect the recommendations of this project.

3 SITE HISTORY DATA REVIEW

3.1 Information Sources

Summary

The following information sources were reviewed as part of our assessment:

- Historical aerial photographs and business directories
- Reviewed EPA priority site / prior audits / licenced activities / filling history
- Where prior audit completed reviewed audit statement and reports
- Review of Council historic reports
- Review of Barwon Water plans
- Review of VVG and Victoria Unearthed
- Title searches to assist in historical ownership (select properties)

Business Directory

Given the high industrial past of the study areas, the business directory was the most valuable data source, assisting in identifying historic business activities that may have led to properties being classed as PCL under PPN30. Due to the age of the precincts most properties have had multiple business iterations throughout their history, making it difficult to interpret potential likelihood of PCL based on current business activity.

Where a prior business indicated a high PCL activity in accordance with PPN30, this triggered a reflective EAO recommendation. A conservative approach was adopted where even if the business directory briefly mentioned a high PCL use (i.e., fuel merchant) a high category was applied. A PSRA may determine if at a later stage if an audit is or is not required for properties.

Due to the significant age and history of the sites, over time development and expansion has resulted in property parcels both being merged and divided, with pre-existing addresses and standard parcel identifies (SPI) no longer present within the Council database. A conservative approach was adopted and where a historic property parcel boundaries had changed and the property was a single address, the planning requirements were applied to the entire amalgamation of properties. There may be the opportunity to exclude / include portions of the site during an investigation (if required).

Aerials

A review of historical aerial was completed for each of the UDFs, with imagery analysed between 1947 and 2022. The UDF were largely developed prior to 1947, therefore majority of building, infrastructure, infilling, and development had already occurred making it difficult to determine and validate potential impact in relation to PCL.

Title Search

Title searches were completed on select properties where there was uncertainty surrounding the potential prior use of the site. Where potential evidence from the site inspection contradicted database search this provided a secondary data source.

Word Search

A word search was completed on Council provided historic reports including heritage review, urban conservation review and site feasibility studies. This provided a secondary data source to cross check for evidence to suggest PCL.

3.2 Number of Properties Reviewed

Using Council-provided databases, Landserv completed a UDF-wide review for evidence of PCL from the information sources outlined in **Section 3.1** above. Each property was assessed for PCL indicators.

A summary of the number of properties that were reviewed as part of this review and that under the planning amendment is provided in **Table 2** below, including a breakdown of properties being rezoned to a more sensitive land use.

Table 2. Properties assessed within UDFs

	Pakington Street UDF	Moorabool Street UDF
# properties assessed	1050	1760
# properties requiring rezoning under PSA	234	34

The tabulated database for each of the UDFs has been provided separately in electronic MS Excel™ format.

3.3 Approach to Identifying Contamination Potential

A standardised process was established to ensure a consistent approach was adopted throughout the review. This assisted in categorising accordance with PPN30, where a low, medium, and high potential of contamination was determined, and then PCL planning recommendations assigned.

The following summary is how the PCL was categorised:

Low Potential For Contamination

- There was no evidence in business directory search of potentially contaminating activities or uses in accordance with PPN30;
- Surrounding site were not classified as high potential for contamination;
- The properties are not situated in a highly industrial area; and
- There was no evidence of filling based on historical aerials.

Medium Potential For Contamination

- There was evidence a business with a high potential for contamination in adjacent property (i.e., fuel stations / dry cleaners);
- There was potential evidence of filling based on historical aerials and or previously completed audit reports; and
- The site was located in a heavy industrial area.

High Potential For Contamination

- There was evidence of business activity with a high potential for contamination on the site in accordance with PPN30; and
- The site had been subject to an environmental audit; however, specific conditions do not allow the proposed sensitive use within the statement of audit.

3.4 Approach to Allocating EAOs and Recommendations

3.4.1 PCL Categories of Properties

Based on the available information, **Table 3** below provides a rationalised approach as to how individual properties have been classified into the following categories:

- EAO recommended (**red**);
- Reduced planning requirements (**amber**, Preliminary Site Investigation (PSI) or site history review required – further descriptions provided below); or
- No further action required.

EAO sites are marked in **red** both in the figures attached (**Figures 1A, 1B and 1C in Appendix A**) and in the database provided separately to Council.

¹Reduced planning requirements sites are marked in **amber** in the figures attached (**Figures 2A, 2B and 2C in Appendix A**) and in the databases. The figures identify all reduced planning requirements category sites with amber colour coding, while the database distinguishes between the different amber categories b, c, d, e, f and g.

Table 3. EAO and Planning Recommendations

¹ Category	Potential for Contamination (PPN30)	Land Use Change PSA	Recommendations (Colour)
a)	High Potential for PCL	Change to a sensitive land use	EAO (Red)
b)	High Potential for PCL	Existing sensitive land use and no change	² Reduced Planning Requirements (Amber)
c)	High Potential for PCL	Existing non sensitive land use and no change	² Reduced Planning Requirements (Amber)
d)	Medium Potential for PCL	Change to a sensitive land use	² Reduced Planning Requirements (Amber)
e)	Medium Potential for PCL	Existing sensitive land use and no change	² Reduced Planning Requirements (Amber)
f)	Medium Potential for PCL	Existing non sensitive land use and no change	² Reduced Planning Requirements (Amber)
g)	Low Potential for PCL	Remaining sites	No action required

Note 1 – Further descriptions are provided below for each category.

Note 2 - Reduced planning requirements refers to RA obligations under CI65.01 and CI13.04-1S of the VPP. See description of recommended responses below for each category of '**amber**' properties.

3.4.2 Category a) (**red**) properties

Category a) (**red**) properties have:

- high potential for PCL (based on the desktop research, site history and / or inspection observations); and
- residential (sensitive) land uses will be allowed as part of a proposed PSA.

These circumstances trigger the requirement for a PRSA or environmental audit under MD# 1.

Recommendation:

An EAO is required for these sites. If a PRSA or environmental audit is already commenced on a property, an EAO may not be necessary.

3.4.3 Category b) (amber) properties

Category b) (amber) properties have:

- high potential for contamination (based on the desktop research, site history and / or inspection observations); and
- have an existing residential ('sensitive') land use; and
- are not intended undergo any change to the land use.

There is no trigger under MD#1 for a compulsory PRSA or environmental audit for these sites, because no PSA is taking place to rezone the land to a more sensitive use.

The desktop history suggesting high potential for contamination based on a former land use does not present an imminent risk of harm to human health or the environment (or 'notifiable' conditions) unless there is other direct or obvious evidence of contamination and a complete exposure pathway.

However, in responding to any planning permit received for one of these properties, the RA is obliged under Cl65.01 and Cl13.04-1S of the planning scheme to satisfy itself that the site is suitable for its intended use. PPN30 indicates that *under the provisions of clause 13.04-1S an audit or PRSA may also be required for permit applications where no EAO applies*.

Recommendation:

An EAO is not required for sites in this category.

To meet RA obligations, the proponent for any permit application should be required to have a site history review or PSI completed by a suitably qualified (environmental) professional. That piece of work should include a site inspection and the report should give consideration to the nature of the proposed development. One objective of that work should be to determine whether a PRSA or environmental audit is required.

Given the sensitive land use for these sites, an environmental audit would be recommended if actual contamination was discovered.

3.4.4 Category c) (amber) properties

Category c) (amber) properties have:

- high potential for contamination (based on the desktop research, site history and / or inspection observations); and
- have an existing non-sensitive land use; and
- are not intended undergo any change to the land use.

There is no trigger under MD#1 for a PRSA or environmental audit for these properties given that no PSA or sensitive land use are proposed.

In responding to any planning permit received for one of these properties, the RA is obliged under Cl65.01 and Cl13.04-1S of the planning scheme to satisfy itself that the site is suitable for its intended use. For sites in this category, PPN30 indicates that '*a planning or responsible authority may require a PSI to inform decision making on next steps, including whether an environmental audit is warranted*'.

Recommendation:

An EAO is not required for sites in this category.

To meet RA obligations, the proponent for any permit application should be required to have a PSI completed by a suitably qualified (environmental) professional. The PSI should give consideration to the nature of the proposed development. If the PSI confirms a likelihood of contamination, soil sampling should be required as a minimum, or a full Detailed Site Investigation (DSI) by a suitably qualified (environmental) professional.

Following completion of a PSI and DSI for sites in this category, if the site has complex contamination, remediation requirements or uncertain risks to human health or the environment, the RA may consider at its discretion whether to require an environmental audit. Alternatively, if the site is suitable or can easily be made suitable for its intended use, the work completed by a suitably qualified environmental professional may be sufficient.

3.4.5 Category d) (amber) properties

Category d) (amber) properties have:

- medium potential for contamination (based on the desktop research, site history and / or inspection observations); and
- residential (sensitive) land uses will be allowed as part of a proposed PSA.

For the Planning Scheme Amendment, PPN30 recommends a PRSA or audit for this category of sites. It recommends that a PRSA be carried out to determine the need for audit.

If a PRSA determines that an environmental audit is not required, the RA would have residual obligations under CI65.01 and CI13.04-1S of the planning scheme to satisfy itself that the site is suitable for its intended use.

Recommendation:

One option for sites in this category is for Council to seek advice from an EPA Auditor as to whether multiple sites can be 'parcelled up' for a PRSA, to inform the Planning Authority which sites, if any, require an environmental audit. An EAO would be recommended for those sites requiring an audit.

Alternatively, further investigation could be carried out by a suitably qualified (environmental) professional on the individual sites in this category, to confirm whether the finding of 'medium' potential for contamination is correct.

The nature of Landserv's desktop history completed to date is broad-scale. By focussing on individual properties, it may be possible to separate these sites into either EAO recommended (if the finding is up-graded to 'high potential'), or no further action (if they are down-graded to 'low potential'). Any focussed investigation of these sites would be greatly assisted if access could be obtained to inspect the sites and sample surface soils.

3.4.6 Category e) (amber) properties

Category e) (amber) properties have:

- medium potential for contamination (based on the desktop research, site history and / or inspection observations); and
- have an existing residential ('sensitive') land use; and
- are not intended undergo any change to the land use.

There is no trigger under MD#1 for a compulsory PRSA or environmental audit for these sites, because no PSA is taking place to rezone the land to a more sensitive use.

In responding to any planning permit received for one of these properties, the RA is obliged under CI65.01 and CI13.04-1S of the planning scheme to satisfy itself that the site is suitable for its intended use. PPN30 indicates that under the provisions of clause 13.04-1S an audit or PRSA may also be required for permit applications where no EAO applies.

Recommendation:

An EAO is not required.

To meet RA obligations, the proponent for any permit application should be required to have a site history review completed by a suitably qualified (environmental) professional. That work should include a site inspection and the report should give consideration to the nature of the proposed development. One objective of that work should be to determine whether a PRSA or environmental audit are required.

Given the sensitive land use for these sites, an environmental audit would be recommended if actual contamination was discovered.

3.4.7 Category f) (amber) properties

Category f) (amber) properties have:

- medium potential for contamination (based on the desktop research, site history and / or inspection observations); and
- have an existing non-sensitive land use; and
- are not intended undergo any change to the land use.

There is no trigger under MD#1 for a PRSA or environmental audit for these properties given that no PSA or sensitive land use are proposed.

In responding to any planning permit received for one of these properties, the RA is obliged under CI65.01 and CI13.04-1S of the planning scheme to satisfy itself that the site is suitable for its intended use. For sites in this category, PPN30 indicates that 'a planning or responsible authority may require a PSI to inform decision making on next steps, including whether an environmental audit is warranted'.

Recommendation:

An EAO is not required for sites in this category.

To meet RA obligations, the proponent for any permit application should be required to have a site history or PSI completed by a suitably qualified (environmental) professional. This work should give consideration to the nature of the proposed development. If a likelihood of contamination is confirmed, soil sampling should be required as a minimum, or a full Detailed Site Investigation (DSI) by a suitably qualified (environmental) professional. Following completion of a PSI and DSI for sites in this category, if the site has complex contamination, remediation requirements or uncertain risks to human health or the environment, the RA may consider at its discretion whether to require an environmental audit. Alternatively, if the site is suitable or can easily be made suitable for its intended use, the work completed by a suitably qualified environmental professional may be sufficient.

3.4.8 Category g) properties

Category g) properties have:

- low potential for contamination (based on the desktop research, site history and / or inspection observations).

No action is required for these properties.

4 REVIEW OUTCOMES AND RECOMMENDATIONS

4.1 General Environmental Settings

A summary of the Study Area is provided in **Table 4** below.

Table 4. Summary of UDF Site Environmental Settings

Item	Details
Allotment Details	<p>The UDFs (study areas) for this investigation are:</p> <ul style="list-style-type: none"> ▪ Pakington Street UDF consisting of the Pakington North Presinct and Gordon Avenue Presinct. ▪ Moorabool Street UDF <p>A total of 2,810 properties that were included in this review.</p>
Municipality	City of Greater Geelong
Study Area Locality	The study areas for the UDFs are provided in Figures 1A, 1B and 1C
Current Study Area use	The study areas are located within the inner city of Geelong, incorporating residential dwelling and commercial properties.
Topography: (Google Earth)	<p>South Geelong - UDF</p> <p>The South Geelong UDF is generally sloping downwards to Barwon River to the south, with elevations ranging between approximately 30 to 10 m AHD. Based on the site inspection the upper ridge line runs along McKillop St.</p> <p>Pakington Street - UDF</p> <p>The Pakington North UDF is generally sloping downwards towards Corio Bay to the East, with elevations ranging between approximately 30 and 14 m AHD.</p> <p>Based on historical aerials, there is an ephemeral creek that aligns with Gordon Avenue; however, this appears to have been backfilled and built over in the 1960's</p>
Geology	<p>South Geelong - UDF</p> <p>The Geological Survey of Victoria "Geelong" Map (1:63,360) indicates that the UDF is generally located on Quaternary Age Newer Volcanics (valley flows). The flows consist of iddingsite labradorite basalt and olivine labradorite basalt.</p> <p>Pakington Street - UDF</p> <p>The Geological Survey of Victoria "Geelong" Map (1:63,360) indicates that the UDF is generally underlain by Tertiary age Moorabool Viaduct Sands; Calcareous sand, clayey sand, quartzite, ferruginous sand and gravel.</p>
Hydrogeology	<p>South Geelong - UDF</p> <p>According to Groundwater Resource Report (2023) groundwater is anticipated to occur at a depth of between 5-10 m bgl with a salinity of between 3,501 and 7,000 mg/L. Based on regional groundwater flow path, groundwater flow direction is anticipated to be south towards the Barwon River.</p> <p>Pakington Street - UDF</p> <p>According to Groundwater Resource Report (2023) groundwater is anticipated to occur at a depth of between 5-10 m bgl with a salinity of between 3,501 and 7,000 mg/L. Based on regional groundwater flow path, groundwater flow direction is anticipated to be north-east towards Port Phillip Bay.</p>

4.2 EAO and PCL Planning Recommendations

Table 5 below provides the number of properties for which an EAO has been recommended, within each of the UDFs.

Table 5. Number of properties recommended for EAO (red)

	Pakington Street UDF	Moorabool Street UDF
High potential for contamination and being rezoned - recommended EAO	43	6

The EAO recommended properties are shown on **Figures 1A, 1B and 1C** in **Appendix A** attached and the full property summaries have been provided to Council separately in the database spreadsheets. In both the figures and the database provided separately to Council, the EAO sites are marked in **red**.

Table 6 below provides the number of properties for which reduced PCL planning requirements are recommended within each of the UDFs.

Table 6. Number of properties recommended for reduced PCL planning requirements (amber)

Potential for Contamination (PPN30)	Pakington Street UDF #	Moorabool Street UDF #
Reduced PCL planning requirements apply (amber)	248	136
Low Potential for PCL (No further action)	759	1618

As outlined in **Section 2.2** above, the 'reduced planning requirements' refers to the need for a site history or PSI required at the time of planning permit application to determine:

- a) whether the site is PCL;
- b) whether a PRSA and/or environmental audit are required (which will be the case if an existing or proposed sensitive land use is on PCL); and / or
- c) whether the site is suitable for its intended use.

The reduced PCL planning requirement properties are shown on **Figures 2A, 2B and 2C** in **Appendix A** attached and included in the database spreadsheets. In both the figures and the database provided separately to Council, the reduced PCL planning requirement properties sites are marked as **amber**.

If further information becomes available through future assessments or audits, Landserv recommends that the PCL database we have provided to Council be updated and if necessary, that new EAOs or the removal of existing EAOs be considered accordingly.

4.3 Filling and Industrial Land Use in Gordon Avenue

Gordon Avenue and the surrounding area has been allocated reduced PCL requirements due to the following factors;

- Historical aerial imagery indicates a creek bed was located beneath Gordon Avenue that appears to have been filled between the 1940s' and 1960's. The source of this fill material is unknown. An audit report for the site on the corner of

Gordon Avenue and Latrobe Terrace indicate fill to a depth of 3.6 m at the rear of the site and evidence of this former gully.

- A review of the business directory and aerials indicate a high level of industrial activity has occurred around Gordon Avenue over a significant duration. Given this high industrial history there is a chance potentially contaminating activities have occurred that are not identified on available databases.

Based on the likely filling along Gordon Avenue and high level of industrial activity a precautionary approach has been adopted in classifying these properties as medium potential for PCL and reduced PCL planning requirement.

5 REPORT LIMITATIONS

This report has been prepared only for internal use by City of Greater Geelong, relevant planning departments and agency involved in the intended development of the study areas. No other parties should rely on the information in this report without prior written consent from City of Greater Geelong.

Landserv has performed its services in accordance with a scope of work commissioned by City of Greater Geelong and in a manner consistent with the level of quality and skill generally exercised by members of its profession.

This assessment has comprised a high-level history review for potentially contaminated land across the broad UDF areas. Our work has been preliminary in nature and has not included a complete site history or investigation of individual properties. If further information becomes available throughout future development or assessments, or if significant contamination is identified, we recommend that the database we have provided Council be updated accordingly.

It should be noted that potential contamination conditions may vary from those identified for each property at the locations. Limited data can result in uncertainty in the interpretation of environmental and contamination conditions. Environmental and contamination conditions also often vary with the passing of time after the data is obtained, as do regulatory requirements, laws, and guideline criteria.

Despite Landserv's due professional care, all these uncertainties should be considered in relying and acting on the information contained in our reports. If a report is used after a significant delay in time, if regulations and guideline criteria are known to have changed, or if a change is proposed to the land use.

Opinions and recommendations in our reports are based on the information available to Landserv at the time of undertaking the works, including the information gained during the project. The information we report relating to the condition of the subject site for each project is sufficiently accurate for the purposes stated in the report at the time the document is issued. No warranty of site conditions is intended.

6 REFERENCES

Federation University Australia, Visualising Victoria's Groundwater, <http://www.vvg.org.au>

Department of Environment, Land, Water and Planning, Victoria Unearthed, <https://www.environment.vic.gov.au/sustainability/victoria-unearthed>.

Department of Environment, Land, Water and Planning, Planning Practice Note 30: Potentially Contaminated Land, July 2021.

Department of Environment, Land, Water and Planning, Groundwater Resource Reports, <https://www.water.vic.gov.au/groundwater/groundwater-resource-reports>.

Lotsearch, 6 January 2023, LS039326 EP, Pakington Street UDF (Northern Portion), Geelong West, VIC, 3218

Lotsearch, 10 January 2023, LS039340 EP, Pakington Street UDF (Southern Portion), Geelong West, VIC, 3218

Lotsearch, 9 January 2023, LS039342 EP, South Geelong UDF (Eastern Portion), South Geelong, VIC, 3220

Lotsearch, 9 January 2023, LS039341 EP, South Geelong UDF (Western Portion), South Geelong, VIC, 3220

Minister's Direction No. 1 Potentially Contaminated Land, Planning and Environment Act 1987.

National Environment Protection Council (NEPC, 1999). National Environment Protection (Assessment of Site Contamination) Amendment Measure 2013 (No. 1) (NEPM).



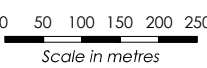

National Environmental Protection Council (NEPC, 2013), *National Environment Protection (Assessment of Site Contamination) Measure (1999 as amended 2013)* (NEPM)

The Geological Survey of Victoria "Geelong" Map (1:63,360)

Appendix A

Figures



Project Number : G1058	Figure : 1A	Date : 28/6/2023	LEGEND :  Approximate UDF Boundary  Red - Recommended EAO	
Drawn By :	Revision : 4	Vertical Datum : Australian Height Datum		
Checked By :	Horizontal Datum: MGA Zone 55 based on GDA2020 Datum			
Data Sources : - Nearmap Aerial Photography, Dec 2022 - VICMAP Property Boundaries, Mar 2023 - Study Area-COGG, Feb 2023		Scale :  Scale in metres	 Zone 55 MGA	Mapping Note: All map locations are approximate only.



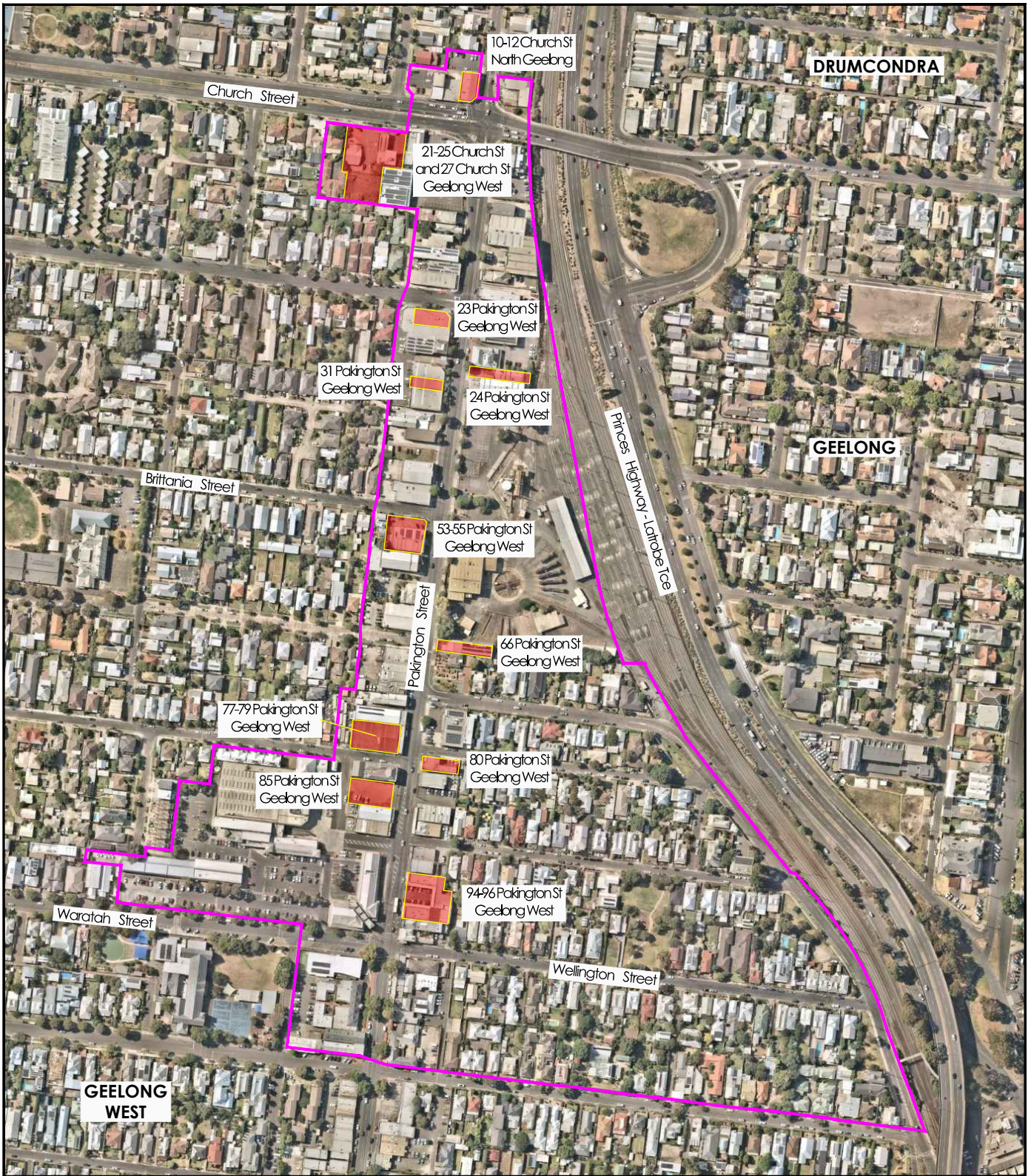
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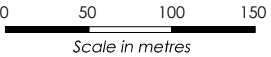

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CLIENT : City of Greater Geelong

LOCATION : South Geelong-UDF

FIGURE TITLE : SITE LAYOUT PLAN AND RECOMMENDED EAO's



Project Number : G1058	Figure : 1B	Date : 28/6/2023	LEGEND :  Approximate UDF Boundary  Red - Recommended EAO
Drawn By :	Revision : 4	Vertical Datum : Australian Height Datum	
Checked By :	Horizontal Datum: MGA Zone 55 based on GDA2020 Datum		
Data Sources : - Nearmap Aerial Photography, Dec 2022 - VICMAP Property Boundaries, Mar 2023 - Study Area-COGG, Feb 2023		Scale :  Scale in metres	 Zone 55 MGA
Mapping Note: All map locations are approximate only.			



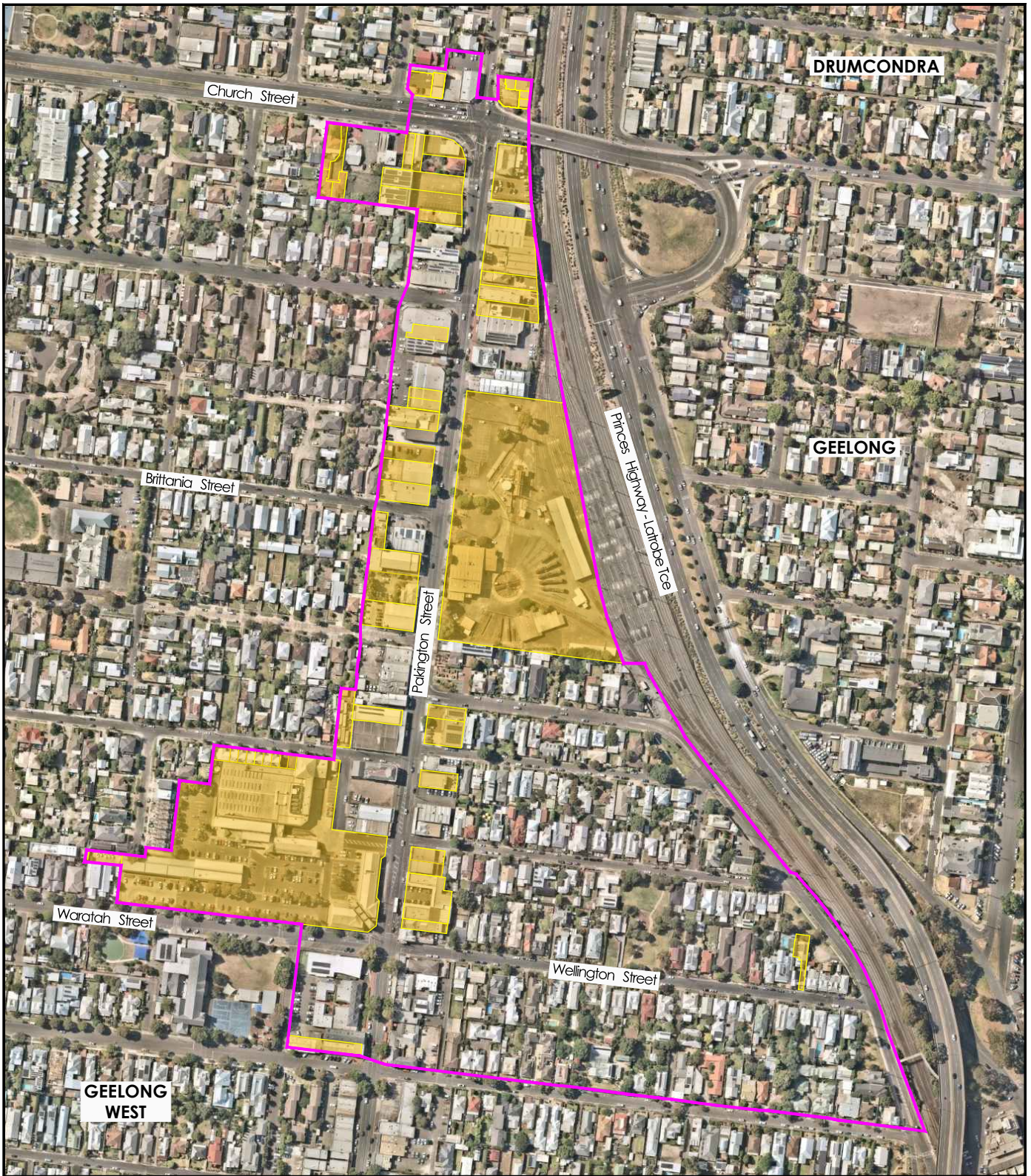
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CLIENT : City of Greater Geelong

LOCATION : Pakington North Precinct-UDF

FIGURE TITLE : SITE LAYOUT PLAN AND RECOMMENDED EAO'S



Project Number : G1058	Figure : 2B	Date : 28/6/2023	LEGEND :  Approximate UDF Boundary  Amber - Reduced Planning Requirements Recommended (see Report)
Drawn By :	Revision : 3	Vertical Datum : Australian Height Datum	
Checked By :	Horizontal Datum: MGA Zone 55 based on GDA2020 Datum		
Data Sources : - Nearmap Aerial Photography, Dec 2022 - VICMAP Property Boundaries, Mar 2023 - Study Area-COGG, Feb 2023		Scale :  Scale in metres	 Zone 55 MGA
			Mapping Note: All map locations are approximate only.



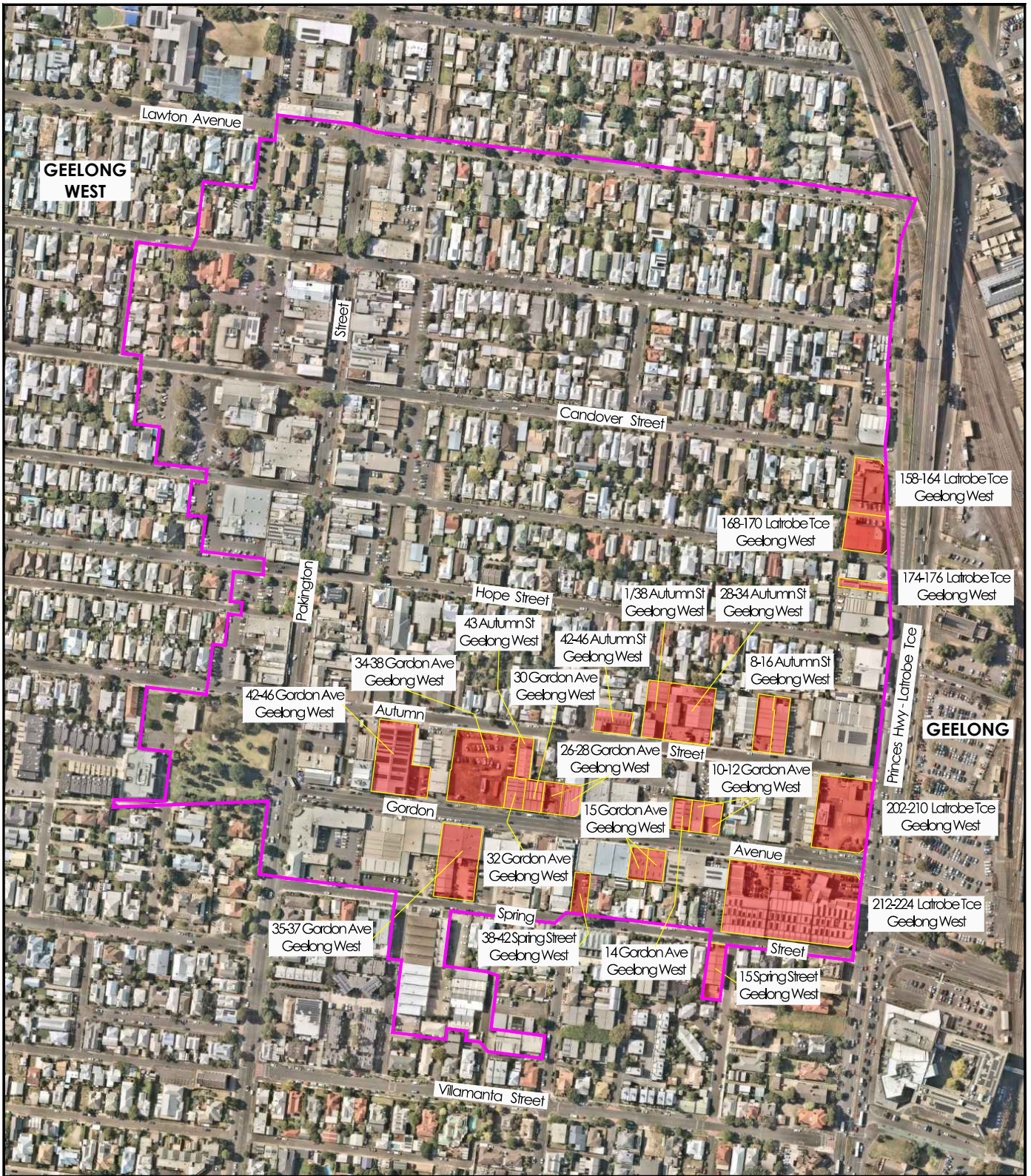
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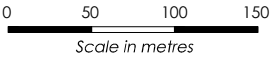

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LOCATION : Pakington North Precinct-UDF

FIGURE TITLE : Site Layout Plan & Reduced Planning Requirements



Project Number :	Figure : 1C	Date : 28/6/2023	LEGEND :  Approximate UDF Boundary  Red - Recommended EAO
Drawn By :	Revision : 4	Vertical Datum : Australian Height Datum	
Checked By :	Horizontal Datum: MGA Zone 55 based on GDA2020 Datum		
Data Sources : - Nearmap Aerial Photography, Dec 2022 - VICMAP Property Boundaries, Mar 2023 - Study Area-COGG, Feb 2023		Scale :  Scale in metres	 Zone 55 MGA
Mapping Note: All map locations are approximate only.			



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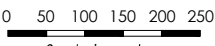

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CLIENT : City of Greater Geelong

LOCATION : Gordon Avenue Precinct-UDF

FIGURE TITLE : SITE LAYOUT PLAN AND RECOMMENDED EAO's



Project Number : G1058	Figure : 2A	Date : 28/6/2023	LEGEND :  Approximate UDF Boundary  Amber - Reduced Planning Requirements Recommended (see Report)
Drawn By :	Revision : 3	Vertical Datum : Australian Height Datum	
Checked By :	Horizontal Datum: MGA Zone 55 based on GDA2020 Datum		
Data Sources : - Nearmap Aerial Photography, Dec 2022 - VICMAP Property Boundaries, Mar 2023 - Study Area-COGG, Feb 2023		Scale :  Scale in metres	 Zone 55 MGA
			Mapping Note: All map locations are approximate only.



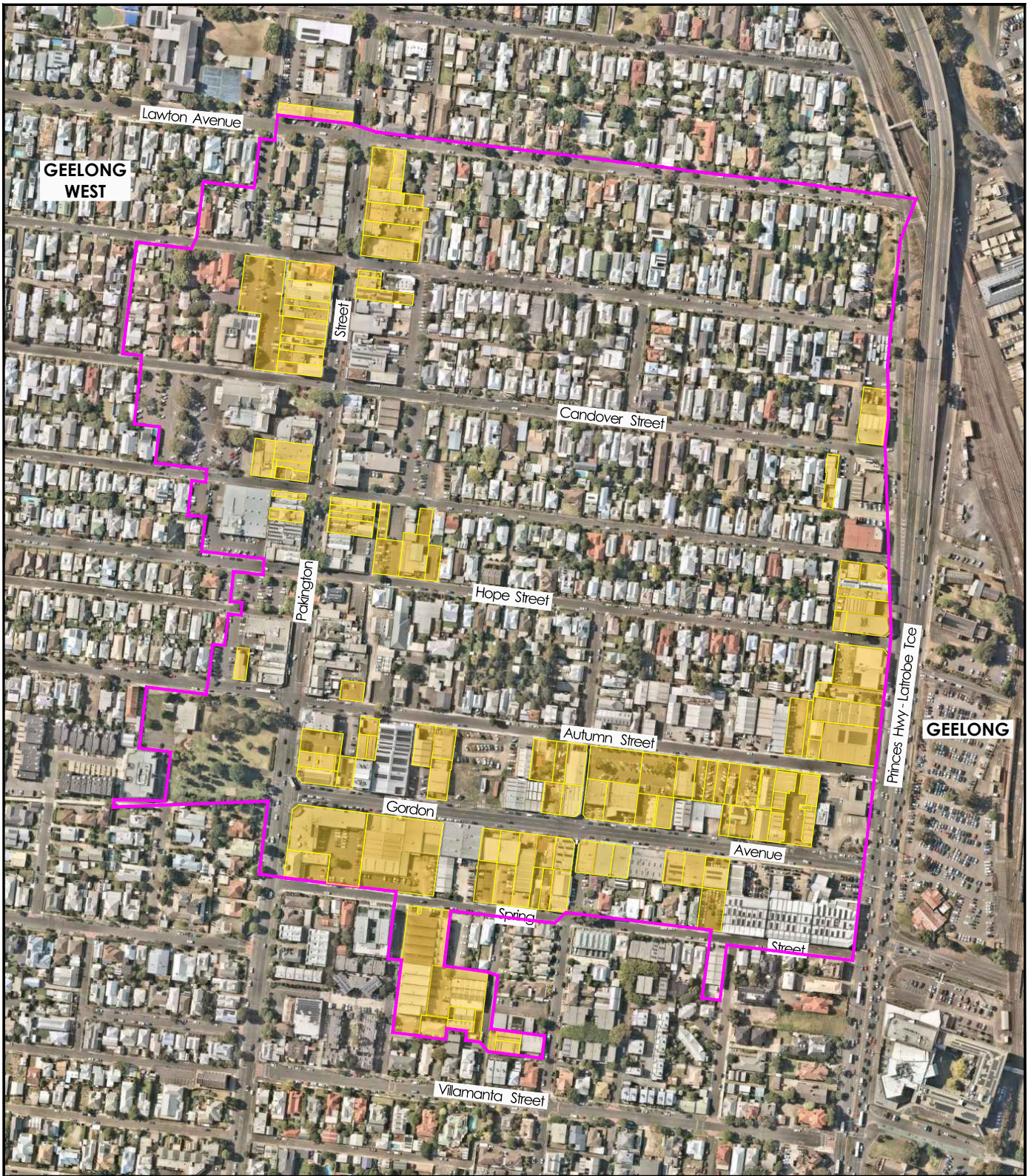
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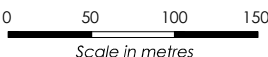

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CLIENT : City of Greater Geelong

LOCATION : South Geelong-UDF

FIGURE TITLE : Site Layout Plan & Reduced Planning Requirements



Project Number : G1058	Figure : 2C	Date : 28/6/2023	LEGEND :  Approximate UDF Boundary  Amber - Reduced Planning Requirements Recommended (see Report)
Drawn By :	Revision : 3	Vertical Datum : Australian Height Datum	
Checked By :	Horizontal Datum: MGA Zone 55 based on GDA2020 Datum		
Data Sources : - Nearmap Aerial Photography, Dec 2022 - VICMAP Property Boundaries, Mar 2023 - Study Area-COGG, Feb 2023		Scale :  Scale in metres	 Zone 55 MGA
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