



**SUBURBAN
RAIL LOOP
EAST**

SRL East Draft Structure Plan

Odour and Dust Technical Report

Suburban Rail Loop

PREPARED FOR SUBURBAN RAIL LOOP AUTHORITY

SRL East Draft Structure Plan – Odour and Dust Technical Report

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This document is based on the information available, and the assumptions made, as at the date of the document. For further information, please refer to the assumptions, limitations and uncertainties set out in the methodology section of this document.

This document should be read in full and no excerpts are to be taken as representative of the findings.

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Glossary and abbreviations

TERM	DEFINITION
AJM-JV	Aurecon Jacobs Mott MacDonald Joint Venture
CSIRO	Commonwealth Scientific and Industrial Research Organisation
Environment Protection Act	<i>Environment Protection Act 2017</i>
EPA Victoria Publication 1518	EPA Victoria Publication 1518: <i>Recommended separation distances for industrial residual air emissions</i>
EPA Victoria Publication 1883	EPA Victoria Publication 1883: <i>Guidance for assessing odour</i>
EPA Victoria Publication 1943	EPA Victoria Publication 1943: <i>Guidance for assessing nuisance dust</i>
EPA Victoria	Environment Protection Authority Victoria
ERS	Environment Reference Standard
GED	General Environmental Duty
km	Kilometre(s)
Landfill Buffer Guideline	EPA Victoria Publication: <i>Landfill buffer guideline</i> (August 2024).
LXRP	Level Crossing Removal Project
m	Metre(s)
Monash SES	Victorian State Emergency Services Monash Unit
NEPM (AAQ)	National Environment Protection Measure for Ambient Air Quality (National Environment Protection Council, 2021)
NPI	National Pollutant Inventory
PSR	Priority Sites Register
Separation distance	The distance between incompatible land uses where there is potential for adverse human health or amenity impacts (as defined in EPA Victoria Publication: <i>Separation distance guideline</i>)
Separation Distance Guideline	EPA Victoria Publication: <i>Separation distance guideline</i> (August 2024).
SRL	Suburban Rail Loop
SRLA	Suburban Rail Loop Authority
SRL East (the Project)	Suburban Rail Loop East
t	Tonne(s)
VLR	Victorian Landfill Register
VPP	Victoria Planning Provisions

Executive summary

As part of the Suburban Rail Loop (SRL) East project, Draft Structure Plans (Structure Plans) are being prepared for the neighbourhoods surrounding the new underground stations at Cheltenham, Clayton, Monash, Glen Waverley, Burwood and Box Hill.

The Structure Plans will set a vision and framework to guide growth and change in each neighbourhood, while protecting and preserving the character and features people love about them now.

This SRL East Structure Plan – Odour and Dust Technical Report will inform the development of the Structure Plans.

ODOUR AND DUST

Odour and dust in the context of this report refer to amenity impacts, which are impacts that may cause annoyance or nuisance.

Nuisance odour and dust can arise from activities on industrial and commercial premises. EPA Victoria regulates activities with potential for nuisance odour and dust and depending on the type and scale of activity, can require a licence, a permit or registration.

Each SRL East Structure Plan Area already contains urban residential and/or commercial land uses. All Victorians have a General Environmental Duty (GED) to minimise risk to human health and the environment as far as reasonably practicable, as legislated in the *Environment Protection Act 2017* (Vic). Industries are therefore required to minimise odour and dust emissions that pose a risk to human health or the environment of nearby residents, workers, and general sensitive receptors in their vicinity, so far as reasonably practicable.

For some industrial and commercial premises, separation distances to sensitive land uses apply due to their potential for odour or dust emissions. These separation distances could impact development or sensitive land use planning (such as residential buildings, childcare centres or aged care facilities) in the SRL East Structure Plan Areas.

EPA Victoria policy for separation distances between incompatible land uses set out in the EPA Victoria Publication – *Separation distance guideline* recognises it is not always possible for some industrial and commercial activities to contain all odours and dust within their property boundaries even when they comply with the GED. When new sensitive land uses such as residences propose to encroach into an existing industrial or commercial activity's separation distance, odour or dust risk assessments may be required, and the outcome of the assessments may constrain the scope of the new sensitive development.

FINDINGS

Proposed land use developments in some parts of the SRL East Structure Plan Areas may be limited by existing business and facilities that require separation distances due to odour and dust emissions, unless mitigations can be provided to minimise the potential for amenity conflicts.

The Table below summarises identified existing business and facilities that may have a separation distance that requires consideration of additional mitigations or would otherwise constrain some types of sensitive land uses in the SRL East Structure Plan Areas.

STRUCTURE PLAN AREA	ASSESSMENT RESULT	IMPACT ON PLANNING CONSIDERATIONS
Cheltenham	There are three industries inside the Structure Plan Area with default separation distances which may limit the sensitive land use development of a portion of the Structure Plan Area. These are Ecolab, Future Recycling, and Ideal Drum Co.	<p>An odour risk assessment was undertaken for Ecolab, which concluded that a 65-metre separation distance for residential land uses is appropriate for the site (which maintains the existing separation distance to the nearest sensitive receivers).</p> <p>For the other two sites, the separation distances may impact development and sensitive land uses in the south-west and central parts of the Structure Plan Area unless appropriate mitigations can be provided. Recommendations relating to these businesses are summarised below.</p>
Clayton	There is one business, PPG Industries, with a default separation distance which overlaps with a small portion of the Structure Plan Area.	An odour risk assessment was undertaken for PPG Industries which concluded there was a low risk of nuisance odour at this location. When combined with the separation distance, no constraints to land use planning are considered necessary in the Clayton Structure Plan Area as a result of this PPG business.
Monash	There are three businesses with default separation distances which may limit the sensitive land use development in the Structure Plan Area. These are the Monash City Council Recycling and Waste Centre, Monash SES site and Inglewood Coffee Roasters.	These separation distances may impact development and sensitive land uses in the northern part of the Structure Plan Area unless appropriate mitigations can be provided. Recommendations relating to these businesses are summarised below.
Glen Waverley	There are no industries identified which have separation distances encroaching into this Structure Plan Area and no further investigation is required.	Based on available information, no impact to strategic planning considerations.
Burwood	There are no industries identified which have separation distances encroaching into this Structure Plan Area and no further investigation is required.	Based on available information, no impact to strategic planning considerations.
Box Hill	There are no industries identified which have separation distances encroaching into this Structure Plan Area and no further investigation is required.	Based on available information, no impact to strategic planning considerations.

RECOMMENDATIONS

Cheltenham Structure Plan Area

There are three businesses with applicable separation distances that overlap with the boundary of the Cheltenham Structure Plan Area: Ecolab, Future Recycling, and Ideal Drum Co. The default separation distances for businesses in the Cheltenham Structure Plan Area are predominantly concentrated around the south west portion of the area.

An odour risk assessment was undertaken for Ecolab which concluded the risk of odour emissions is very low, to the extent that a separation distance is not necessary due to the lack of potential odour sources. However, given the size of the site and the fact that chemical scrubbers are used on the site which means there is always a risk, albeit very small, that chemical odours might be detected at the site boundary, it is considered that a small separation distance to residential land uses is appropriate. Given there are already sensitive (residential) land uses 65 metres from the site boundary, it is recommended that this separation distance be applied around the full site boundary for residential land uses.

If intensification of sensitive land uses is proposed in the south west part of the Structure Plan Area, further engagement is recommended with the remaining two businesses identified in this Structure Plan Area to understand the site-specific odour or dust emission risks, opportunities for additional at-source mitigation, and the likely future operations of these businesses in this location. Field odour surveying may be needed to conduct an overall Level 3 odour risk assessment for that area along with dust monitoring to further understand the nuisance dust risks.

In the event that more sensitive land uses are proposed within recommended separation distances, apart from source mitigation at the industry itself, other approaches to minimise the risk of nuisance odour or dust focus on what can be done to break the source-pathway-receiving environment chain, could include the following:

- a) Introduce further mitigation measures to the sites such as enclosure of potentially dusty activities in a building, additional non-porous fencing and walls for sheltering from wind, and further use of water sprays or misting cannons for dust suppression.
- b) Land uses that could be sensitive to dust and odour include residential, health and education. Other non-sensitive land uses could be used as a buffer between offices, residences and the sites. Green space for informal outdoor recreation purposes could also be used where the risk of dust and odour exposure is low, because green space environments can still be sensitive to odour and dust but not at the same degree of sensitivity as residential, health and education.
- c) Solid walls at the site boundary between the site and the sensitive land use can help to trap dust and impede dispersion of dust particles.
- d) If sensitive land uses are proposed within the separation distance from the site, controls would be recommended to further reduce dust or odour exposure risks such as choosing apartment or office buildings with elevated ventilation air intakes and entries facing away from the facility. Buildings could also incorporate the potential for air filtration technology from common air intake points.

Clayton Structure Plan Area

There is one business with a default separation distance that encroaches into the eastern side of the Clayton Structure Plan Area – PPG Industries, a large-scale paint and coatings manufacturer. This area is already zoned for residential use and developed as residential areas. An odour risk assessment for PPG Industries was conducted at the structure plan boundary, which is 370 metres from PPG Industries, and was concluded to have an overall low odour risk potential when considering the direction from the site and the separation distance available. In addition, the area within the Structure Plan Area where the separation distance overlaps is already developed for sensitive land uses.

Due to the low risk rating and the separation distance between PPG Industries and the Structure Plan Area boundary, it is concluded that no constraints to land use planning in the Clayton Structure Plan Area are considered necessary due to the proximity of PPG Industries.

Monash Structure Plan Area

Three businesses with default separation distances encroach into the northern part of the Structure Plan Area boundary. The Monash Recycling and Waste Centre (MRWC) is a transfer station processing predominantly construction and industrial waste, owned by the Monash City Council. Approximately 70 metres south of the MRWC is a permanent stockpile of tree and wood chippings from fallen trees, maintained by the Victorian State Emergency Services Monash Unit (Monash SES). Both sites are located in the northern portion of the Monash Structure Plan Area.

The MRWC has a medium dust impact risk for sensitive land uses within the default 250-metre separation distance defined in the Separation Distance Guideline. Approaches to minimise the risk of nuisance dust focus on what can be done to break the source-pathway-receiving environment chain, and could include the following:

- a) Relocate the MRWC out of the Structure Plan Area, to a location with more compatible surrounding land uses.
- b) Introduce further mitigation measures to the MRWC site such as enclosure of potentially dusty activities in a building, additional non-porous fencing and walls for sheltering from wind, and further use of water sprays or misting cannons for dust suppression.
- c) Land uses that could be sensitive to dust include residential, health and education. Other non-sensitive could be used as a buffer between offices, residences and the sites. Green space for informal outdoor recreation purposes could also be used with appropriate landscaping design to provide shelter from the MRWC, however green space environments can still be sensitive to dust exposure but not at the same degree of sensitivity as residential, health and education.
- d) Solid walls at the MRWC boundary between the MRWC and the sensitive land use can help to trap dust and impede dispersion of the dust particles.
- e) If sensitive land uses are proposed within the 250-metre separation distance of MRWC, controls would be recommended to further reduce dust risks such as choosing apartment or office buildings with elevated ventilation air intakes and entries facing away from the facility. Buildings could also incorporate the potential for air filtration technology from common air intake points.

These recommendations also apply to the Monash SES site, which has a default 250-metre separation distance for dust defined in the Separation Distance Guideline.

Inglewood Coffee Roasters is a coffee roastery located to the north of the Structure Plan Area but with a potential 250-metre separation distance that encroaches into the northern part of the Structure Plan Area on the northern side of Ferntree Gully Road. Engagement with this business is required to confirm if the production throughput exceeds the threshold (200 tonnes per year) that invokes a separation distance requirement. Land uses within this area are currently comprised of small office-style businesses. Assuming that a separation distance is required, some individuals can be quite sensitive to coffee roasting odours even though there is an overall low odour risk potential for this business. It is therefore recommended that source-pathway-receptor mitigation measures similar to the general approaches described for MRWC are considered if the Structure Plan proposes to introduce more sensitive land uses on the northern side of Ferntree Gully Road.

PPG Industries also overlaps slightly with the Structure Plan Area. The available separation distance is 450 metres, which is not much less than the default 500-metre separation distance. The risk of exposure to nuisance odour at the Structure Plan Area boundary is assessed as very low, and no constraints to land use planning in the Monash Structure Plan Area are considered necessary due to the proximity of PPG Industries.

Glen Waverley, Burwood and Box Hill Structure Plan Areas

Based on available information, no odour or dust amenity impacts that might constrain land use planning in the Glen Waverley, Burwood and Box Hill Structure Plan Areas were identified.

1 Introduction

Suburban Rail Loop (SRL) is a transformational project that will help shape Melbourne's growth in the decades ahead. It will better connect Victorians to jobs, retail, education, health services and each other – and help Melbourne evolve into a 'city of centres'.

SRL will deliver a 90-kilometre rail line linking every major train service from the Frankston Line to the Werribee Line via Melbourne Airport.

SRL East from Cheltenham to Box Hill will connect major employment, health, education and retail destinations in Melbourne's east and south east. Twin 26-kilometre tunnels will link priority growth suburbs in the municipalities of Bayside, Kingston, Monash and Whitehorse.

SRL East Structure Plan Areas will surround the six new underground stations at Cheltenham, Clayton, Monash, Glen Waverley, Burwood and Box Hill.

1.1 Purpose

This SRL East Draft Structure Plan – Odour and Dust Technical Report will inform the development of the Draft Structure Plans (Structure Plans) that will guide land planning and development in the SRL East Structure Plan Areas.

The report describes the existing odour and dust profiles of each Structure Plan Area and the surrounding area.

This report provides the assessment of existing businesses and facilities where separation distances apply due to their potential for odour or dust emissions. These separation distances could impact development or sensitive land use planning (such as residential buildings, childcare centres or aged care facilities) in the SRL East Structure Plan Areas.

Issues and opportunities relating to odour and dust that impact planning for the development of each Structure Plan Area are identified.

Recommendations to consider when developing the Structure Plans are made in relation to these separation distances, with the objective to minimise and manage negative impacts of change and to maximum potential for positive change.

This report does not focus on human health associated with emissions into air from industrial activities. These emissions are regulated through the *Environment Protection Act 2017* (Vic) (see Section 4.3) and the Environment Reference Standard (ERS) (see Section 4.4). EPA Victoria explicitly excludes ambient air pollutants and hazardous air pollutants from the scope of its separation distance policy, as detailed in the EPA Victoria Publication – *Separation distance guideline* – herein referred to as the 'Separation Distance Guideline'.

1.2 Project context

Construction of the SRL East underground stations is underway at Box Hill, Burwood, Glen Waverley, Monash, Clayton and Cheltenham. This provides an opportunity to enhance the surrounding neighbourhoods.

SRL East will support thriving and sustainable neighbourhoods and communities that offer diverse and affordable housing options, with easy access to jobs, transport networks, open space, and community facilities and services.

A vision for each SRL East Structure Plan Area and surrounds has been developed in consultation with the community and stakeholders. The visions set out the long-term aspirations for each Structure Plan Areas, so they are ready to meet the needs of Melbourne’s growing population.

Figure 1.1 shows SRL East in the context of the entire SRL project and Melbourne's rail network.

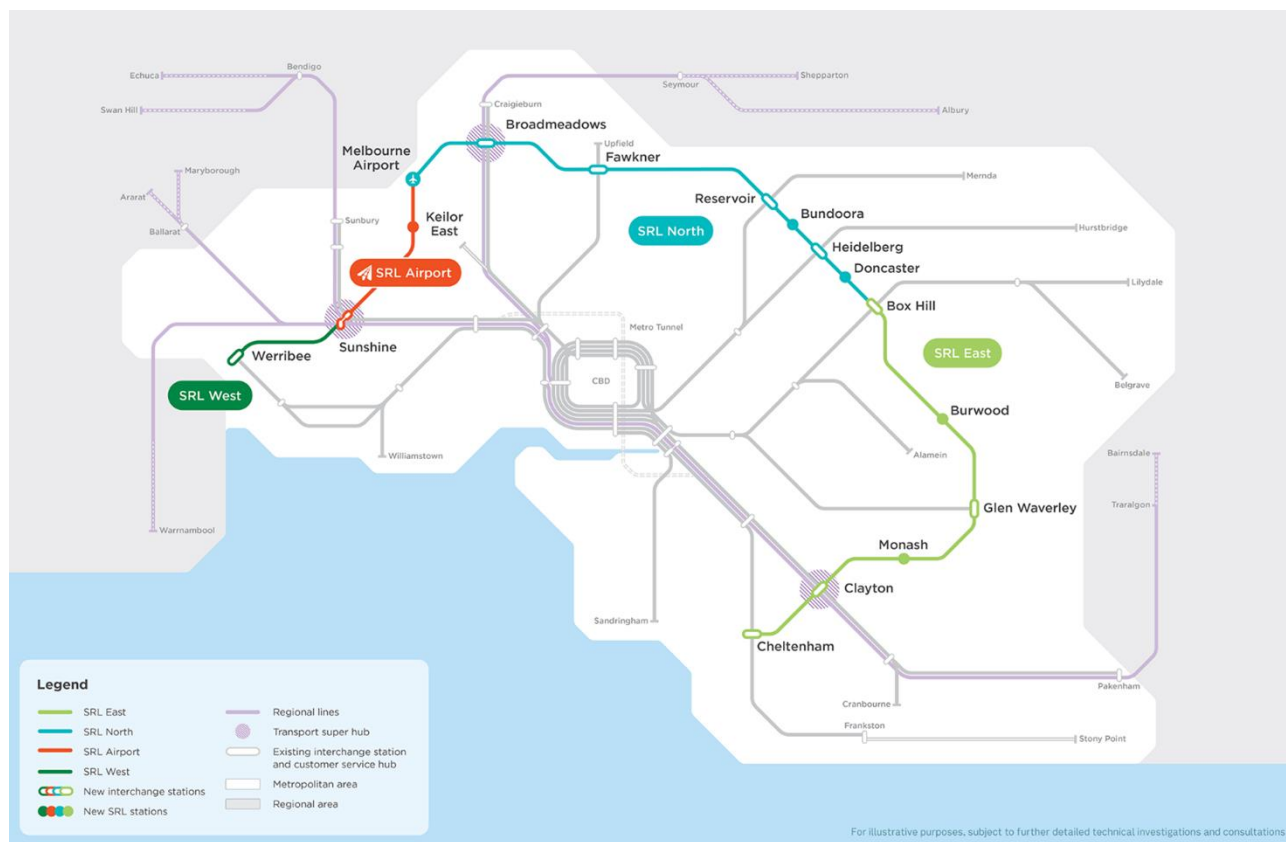


FIGURE 1.1 SRL EAST CONTEXT IN MELBOURNE’S RAIL NETWORK

1.3 Structure planning for SRL East

Structure Plans are being developed to help deliver the vision for each SRL East neighbourhood.

The Structure Plans cover defined SRL East Structure Plan Areas. These are the areas immediately surrounding the SRL stations, where the most growth and change will occur.

The Structure Plans will provide a framework to meet local housing, employment and social infrastructure needs over the next decades. This may include changes to land use, building heights and densities, additional infrastructure, community services and open space.

The objective of the Structure Plans is to achieve the economic, social and environmental potential of each area around the new stations, while protecting and maintaining the features that people love about them now.

Planning scheme amendments will be required to implement the Structure Plans into the planning schemes of the cities of Bayside, Kingston, Monash and Whitehorse.

1.4 Structure of the report

- **Section 1** provides the background and context of the technical assessment.
- **Section 2** explains the methodology for the technical assessment.
- **Section 3** defines the six SRL East Structure Plan Areas.
- **Section 4** summarises legislation, policies and other documents relevant to the assessment.
- **Section 5** describes the existing potential sources of odour and dust in each Structure Plan Area.
- **Section 6** sets out the findings of the odour and dust risk assessments. It identifies the issues, challenges and opportunities relating to odour and dust that will impact land use planning and development in each Structure Plan Area.
- **Section 7** sets out the recommendations that should be considered when developing the Structure Plans.

2 Methodology

2.1 General approach

The methodology for this technical assessment involved:

- Study Areas were established for the assessment (see Section 3). The Study Areas comprise the Structure Plan Area in each SRL East neighbourhood, and a 1-kilometre radius around each Structure Plan Area.
 - » A 1-kilometre radius was identified as appropriate based on default separation distances set out in the Separation Distance Guideline.
 - » The Separation Distance Guideline recommends default separation distances of greater than 1-kilometre for activities including: petroleum refining, animal stock saleyards, non-ferrous metal production (aluminium by electrolysis), production of chemicals and paper manufacture using sulphur containing materials, and some types of sewage treatment plants. A desktop assessment concluded that no facilities of this nature were located on land surrounding the SRL East Structure Plan Areas and so a 1-kilometre radius was judged appropriate.
- Legislation, policies and documents relevant to odour and dust were reviewed (see Section 4).
- Existing businesses and facilities in the Study Areas with potential to generate odours and dust that may require a separation distance from developments with sensitive receptors (Section 5) were identified. This involved:
 - » A review of the National Pollutant Inventory (NPI) database, the EPA Victoria Priority Sites Register (PSR), the Victorian Landfill Register (VLR) and the EPA Victoria public register for permissioned facilities
 - » A desktop search using aerial photography supplemented by area reconnaissance to identify other potentially odorous or dust-generating activities in the Study Areas not listed on these registers or inventories – any identified using this search but which only appeared to have office facilities in a Study Area were not included in the assessment
 - » Investigation of any operating or closed landfill sites
 - » A review of the Major Hazard Facilities register maintained by WorkSafe Victoria
 - » Confirmation of the property or parcel boundaries associated with each business or facility using VicPlan.
- Some businesses or facilities where their activities and the odour or dust risks were unclear required site visits or area reconnaissance to assess their activities to inform the assessment. Site visits were conducted after consultation with the relevant operators. Site visits, or area reconnaissance, were undertaken between November 2023 and September 2024.
- Odour or dust risk assessments were undertaken for some businesses or facilities which were identified as requiring further investigation to determine the appropriate risk rating and mitigation measures. See odour risk assessments in Appendix A and dust risk assessments in Appendix B. The odour and dust risk assessments refer to local wind speed and direction data (see Appendix C) to inform their risk ratings.
- Businesses and facilities were identified where separation distance requirements apply, or were recommended due to their odour or dust emissions which could impact development and sensitive land use planning in the SRL East Structure Plan Areas (see Section 6).

- The applicable separation distances were mapped, and visually reviewed for potential cumulative impacts. Different colours were adopted in the mapping of the separation distances recommended for each of odour and dust to distinguish any potential cumulative impacts (see Section 6).
- Recommendations to minimise odour and dust impacts in the Structure Plan Area were identified, along with the impacts of separation distances applying to existing businesses and facilities on development and sensitive land uses (see Section 7).

2.2 Background

Odour and dust in the context of this report refer to amenity impacts, which are impacts that may cause nuisance.

The Separation Distance Guideline states that repeated exposure to nuisance odour can negatively affect people's quality of life as it may cause frustration, stress, discomfort or annoyance. It can also lead to health problems such as headaches, nausea and vomiting. Nuisance dust is defined in the Separation Distance Guideline as dust that can 'result in unsightly soiling of surfaces, create visible plumes and reduce visibility. All of these are amenity impacts that can affect people's wellbeing. Repeated exposure to nuisance levels of dust can negatively affect people's quality of life as it may cause frustration, stress, discomfort or annoyance. Dust can also have adverse effects on human health, particularly for people who already have respiratory conditions, such as asthma'. The Separation Distance Guide also notes that particles in airborne dust commonly tend to be coarse or non-respirable and do not pose a serious health threat to the public. However, people with respiratory conditions may experience difficulties. The separation distances in the Separation Distance Guideline are intended to apply to nuisance dust in this context.

Nuisance odour and dust arise from some types of industrial and commercial premises (including manufacturing, waste management activities, and power generation facilities), road networks (particularly congested traffic intersections), some construction sites, and domestic home heating using wood burning.

Some industrial and commercial activities are regulated by EPA Victoria, depending on the type and scale of activity, requiring one or more of the following types of permissions:

- Licence – permission tool for high-risk, high complexity activities
- Permit – permission tool for medium-risk activities
- Registration – permission tool for low-risk activities.

Other activities such as traffic and domestic home heating emissions are regulated through state-wide policies but do not require individual licensing. Emissions from these activities contribute to the overall background air quality of the region but generally do not create local odour and dust issues – although wood-burning stoves and busy or congested traffic intersections may be an exception to this general rule.

Each SRL East Structure Plan Area already contains urban residential and/or commercial land uses. All Victorians have a General Environmental Duty (GED) to minimise risk to human health and the environment as far as reasonably practicable, as legislated in the *Environment Protection Act 2017* (Vic). Industries are therefore required to minimise odour and dust emissions that pose a risk to human health or the environment of nearby residents, workers, and general sensitive receptors in their vicinity, so far as reasonably practicable. The converse also applies where proposed sensitive land uses encroach on existing industries, with the Separation Distance Guideline stating that developers should also minimise the risks from odour or dust exposure so far as reasonably practicable.

The Separation Distance Guideline recognises that it is not always possible for some industrial and commercial activities to contain all odours and dust within their property boundaries even when they comply with the GED.

When new sensitive land uses such as residences propose to encroach into an existing industrial or commercial activity's separation distance, odour or dust risk assessments may be required, and the outcome of the assessments may constrain the scope of the new sensitive development.

2.3 Assumptions and limitations

The following assumptions and limitations apply to this assessment:

- A 1-kilometre radius around each Structure Plan Area was considered sufficient to identify activities with potential to generate odour and dust that could impact developments and sensitive land uses in the SRL East Structure Plan Areas.
- It is assumed that existing businesses and facilities identified with odour or dust sources are compliant with their regulatory obligations at existing sensitive receptors.
- Except where explicitly identified, there will be a low risk of adverse impacts on human health due to exposure to airborne pollutants for any sensitive receptors developed in the SRL East Structure Plan Areas.
- Except where stated, information about the nature and scale of activities conducted on any individual premises was sourced from desktop research of publicly-available websites and EPA / NPI registries.
- Separation distances were initially applied at the property or parcel boundaries which gives the most conservative estimate of the separation distance. For industries requiring further investigation, these distances were refined to the actual location of an activity within the property boundary, in accordance with the Separation Distance Guideline.
- Odour or dust impacts relating to construction works (for SRL East construction or independently of them) are treated as temporary and so are not considered.
- There are no applications for Buffer Area Overlays (Clause 44.08, Victoria Planning Policy Framework) in preparation or pending that affect land in the SRL East Study Areas.

2.4 Approach for common industries with minor odour or dust emission risks

A number of business types within the Study Areas fall into common categories, and this report adopts the following standard approaches for assessing these categories from an odour and dust risk perspective:

- Businesses storing or processing e-waste on-site (and not any other kind of priority industrial waste or putrescible / green waste):
 - » While e-waste is a priority industrial waste, it does not pose a risk for odour or dust emissions unless it catches fire, which is a risk that is outside the scope of this assessment. The guidance provided in the Separation Distance Guideline on separation distance assessment is applicable to potential unintended off-site emissions expected as part of the day-to-day operation. However, a facility fire is not part of day-to-day operations. It is highly unlikely there would be any risk of reduced amenity for neighbours from storing e-waste within a business's day-to-day operations. In accordance with the Separation Distance Guideline (see Figure 4.1), businesses that do not pose an odour or dust risk require no further assessment.
- Businesses engaged in metals recycling and vehicle repairs or wrecking, leading to scrap metal storage or processing without metal smelting:

- » A number of businesses were identified which have permissions to accept end-of-life vehicles and are assumed to recycle metal as part of those operations, as well as businesses described as metal recyclers or processing facilities. While there is a default separation distance for odour from materials recovery and recycling facilities accepting scrap metal in the Separation Distance Guideline, it is considered the odour emission risk from this kind of activity is very small unless the activities include melting down the metals as part of the recycling process, or possibly from large-scale vehicle wrecking and crushing. In accordance with the Separation Distance Guideline (see Figure 4.1), businesses that do not pose an odour or dust risk require no further assessment.
- Businesses storing waste tyres on-site:
 - » Some businesses hold permissions to store waste tyres on-site, particularly businesses associated with vehicle servicing or recovery. While waste tyres are priority industrial waste, they do not pose a risk for odour or dust emissions unless they catch fire, which is a risk outside the scope of this assessment. The guidance provided in the Separation Distance Guideline on separation distance assessment is applicable to potential unintended off-site emissions expected as part of the day-to-day operation. However, a fire in stored tyres would not be part of day-to-day operations. It is highly unlikely there would be any risk of amenity reduction for neighbours from storing tyres within a business's day-to-day operations. In accordance with the Separation Distance Guideline (see Figure 4.1), businesses that do not pose an odour or dust risk require no further assessment.
- Bakeries which are located in commercial and retail zones, and are not industrial factory-sized facilities:
 - » A number of small-scale bakeries operating in the Study Areas were considered for this assessment. These bakeries are located in commercial and retail areas, and would not be considered as industrial factory-sized facilities. While the Separation Distance Guideline includes a category for baked goods production, this associated separation distance depends on production level per bakery, which is not easily accessible information. Bakeries discharge odours which, while not offensive to most people, do pose a risk of annoyance to some people that have a negative connotation associated with the smell or to nearby residents that experience the odour frequently.
 - » A generic odour risk assessment was conducted to address these kinds of bakeries as a whole, following the Level 2 odour risk assessment methodology from EPA Victoria Publication 1883 – *Guidance for assessing odour* which is discussed in detail later in this report:
 - Level 2 odour risk assessments assign a score for the odour source, the pathway to receptors, and the receiving environment.
 - The odour source score can be considered the same for all the bakeries of this description: from EPA Victoria Publication 1883, the bakery activity type is considered a low odour potential (with a score of 1) and the offensiveness potential of baked goods is considered innocuous (also scoring 1). The size of the odour hazard for these bakeries can be assumed as small size, equating to materials usage up to hundreds of tonnes/m³ per year (scoring 1). It is also assumed the odour control relative to the odour hazard is moderate to high (scoring 0 or -1). Based on these assumptions, the odour source score would be at most, 1.
 - With this odour source score, even if the pathway and the receptor scores were at their highest (assuming there were no existing odour complaints about or issues with the bakery), the odour risk potential score would still be classified as low.
 - » It is also noted that in Clause 53.10 of the Victoria Planning Provisions (see Section 4.1), bakeries that are ancillary to a shop are excluded from the list of activities that apply a threshold distance.
 - » Based on this generic risk assessment, small-scale bakeries in commercial and retail areas are not considered to pose a significant odour risk, and do not require further assessment.

2.5 Stakeholder engagement

This technical report builds on previous consultation undertaken for the feasibility, design development and environmental and planning approval phases of the SRL project.

The structure planning process has involved comprehensive and robust conversations with the community, councils, key institutions and other stakeholders on the proposed visions and key directions for the Structure Plan Area and surrounds.

For more information refer to the SRL Structure Planning Engagement Reports available on the SRL website (<https://bigbuild.vic.gov.au/library/suburban-rail-loop/reports/engagement-reports>).

Table 2.1 summarises the stakeholder engagement conducted for this report, and how it has informed the report's preparation. Feedback on the technical content of this report was obtained through targeted consultation including direct engagement, face to face meetings, and technical workshops.

TABLE 2.1 STAKEHOLDER ENGAGEMENT

STAKEHOLDER	DATE	MATTERS DISCUSSED/ ISSUES RAISED	OUTCOME
All SRL East Structure Plan Areas			
EPA Victoria	February to April 2024	Activity definitions in (then) draft Separation Distance Guideline	EPA Victoria clarified some activity definitions in the (then) draft Separation Distance Guideline. Full details of these clarifications are provided in Section 4.6.6 of this technical report.
	3 June 2024	The content and structure of this technical report	EPA Victoria provided comments and feedback on the content and structure of a draft version of this technical report, which were subsequently addressed.
	11 December 2024	The methodology and findings of this technical report to assist with MD19 review	EPA Victoria noted methodology was consistent with the available guidance, and were briefed on the findings and recommendations.
Community Panels	March 2024	Structure Plans and structure planning approach	SRLA conducted consultations with Community Panels in each neighbourhood area to capture questions and feedback on the structure planning approach. No questions or feedback were received regarding odour or dust in relation to the structure planning.
General community	April to May 2024	Structure Plans Visions	SRLA implemented online engagement consultation on the Structure Plans Visions to gather community feedback via the SRL East visions website (https://www.srleastvisions.com.au/). Some feedback from Box Hill, Glen Waverley and Cheltenham suburbs was concerned with how population growth and density increase will impact pollution in these areas. However, that concern is not related to reverse amenity impacts on existing industries and is outside the scope of this report. There was no other feedback related to odour and dust from the suburbs.
Monash Structure Plan Area			
Monash City Council	November 2023	Monash Recycling and Waste Centre (MRWC)	The outcomes of email engagement and a site visit to the MRWC included further information on the site's activities, informing the assessment of odour and dust risks posed by the facility.

STAKEHOLDER	DATE	MATTERS DISCUSSED/ ISSUES RAISED	OUTCOME
Hospira (Pfizer)	-	On-site activities	This business was engaged by email, however no response to questions put to them were received.
Clayton Structure Plan Area			
PPG Industries	21 May 2024	On-site activities	Outcomes of email engagement included information about the business's on-site activities, informing the assessment of odour and dust risks posed by the facility.
Cheltenham Structure Plan Area			
Ecolab	19 April 2024	On-site activities	Outcomes of email engagement included information about the business's on-site activities, informing the assessment of odour and dust risks posed by the facility.
	12 November 2024	On-site activities	Site visit by AJM-JV and SRLA to observe site processes, potential odour release opportunities, and air quality control equipment. Outcomes enabled completion of an odour risk assessment for the site as detailed in Appendix A.
Laminex	2 May 2024	On-site activities	Outcomes of email engagement included information about the business's on-site activities, informing the assessment of odour and dust risks posed by the facility.
	18 July 2024	On-site activities	Through further email engagement the business advised their paper treatment plant was the only activity that required odour control or mitigation, and this was shut down 5 years ago. The business also confirmed that while they have no plans to shut down their Cheltenham site in the near future, there is no existing activity at that site which requires odour control or mitigation.

2.6 Peer Review

This technical report has been independently peer reviewed by Dr Iain Cowan of Zephyr Environmental Pty Ltd. The peer review report is attached as Appendix E of this report, which sets out the peer reviewer's opinion on the SRL East Draft Structure Plan – Odour and Dust Technical Report.

3 SRL East Structure Plan Areas

This section defines the Structure Plan Area in each SRL East neighbourhood.

3.1 Study Areas

Study Areas were established for the odour and dust assessment. The basis of each Study Areas was the SRL East Structure Plan Area, plus a 1-kilometre radius beyond their boundary.

A 1-kilometre radius was selected as it is considered sufficient, based on default separation distances, to identify all dust and odour sources with the potential to influence the environment in the SRL East Structure Plan Areas. More explanation for the 1-kilometre radius is provided in Section 2.

3.2 Cheltenham Structure Plan Area

The Cheltenham Structure Plan Area surrounds the SRL station at Cheltenham in the cities of Kingston and Bayside.

It is generally bordered by residential land north of Stayner Grove and Alison Street to the north, residential land east of Chesterville Road to the east, Park Road to the south and Middleton Street and Worthing Road to the west.

The Structure Plan Area is intersected by the Nepean Highway and the Frankston Line.

The Cheltenham Structure Plan Area and the 1-kilometre radius Study Area are shown in Figure 3.1.



FIGURE 3.1 CHELTENHAM STRUCTURE PLAN AREA AND STUDY AREA

3.3 Clayton Structure Plan Area

The Clayton Structure Plan Area surrounds the SRL station at Clayton in the cities of Monash and Kingston.

It is generally bordered by North Road / Wellington Road to the north, Ormond Road to the west, residential lots between Alward Avenue and Murdock Street, and parts of the Dandenong Line to the south, and Kombi Road and Buckland Street to the east.

Dandenong Road is a major road, running in a north-west to south-east alignment through the edge of the Structure Plan Area.

The Clayton Structure Plan Area and the 1-kilometre radius Study Area are shown in Figure 3.2.

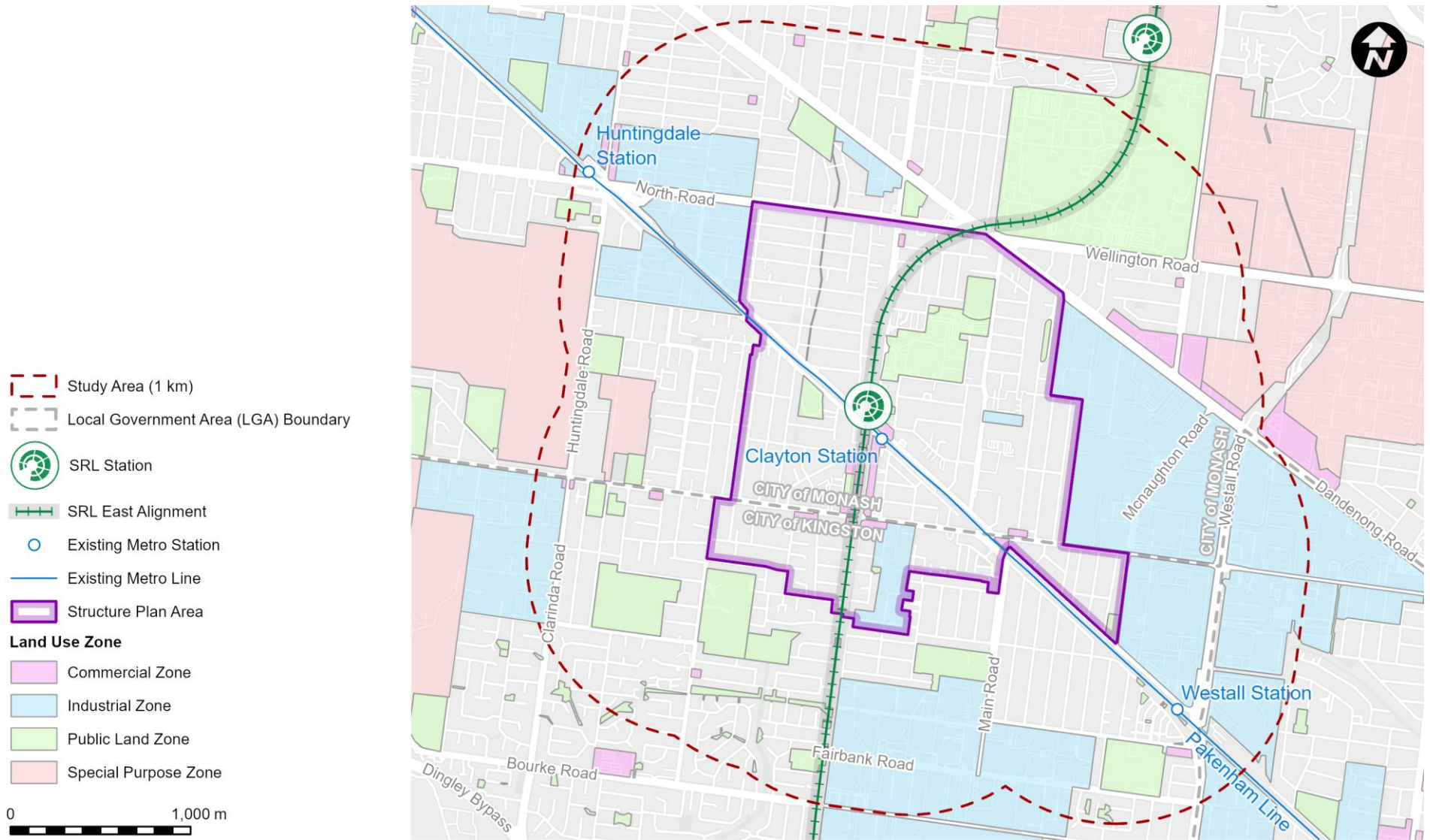


FIGURE 3.2 CLAYTON STRUCTURE PLAN AREA AND STUDY AREA

3.4 Monash Structure Plan Area

The Monash Structure Plan Area surrounds the SRL station at Monash in the City of Monash. It is generally bordered by Wellington Road and Princes Highway to the south, Gardiner Road and residential properties between Clayton Road and Dover Street to the west, land north of Ferntree Gully Road to the north and a reservation for a future road, which forms a natural barrier to properties to the east.

The Monash Structure Plan Area and the 1-kilometre radius Study Area are shown in Figure 3.3.

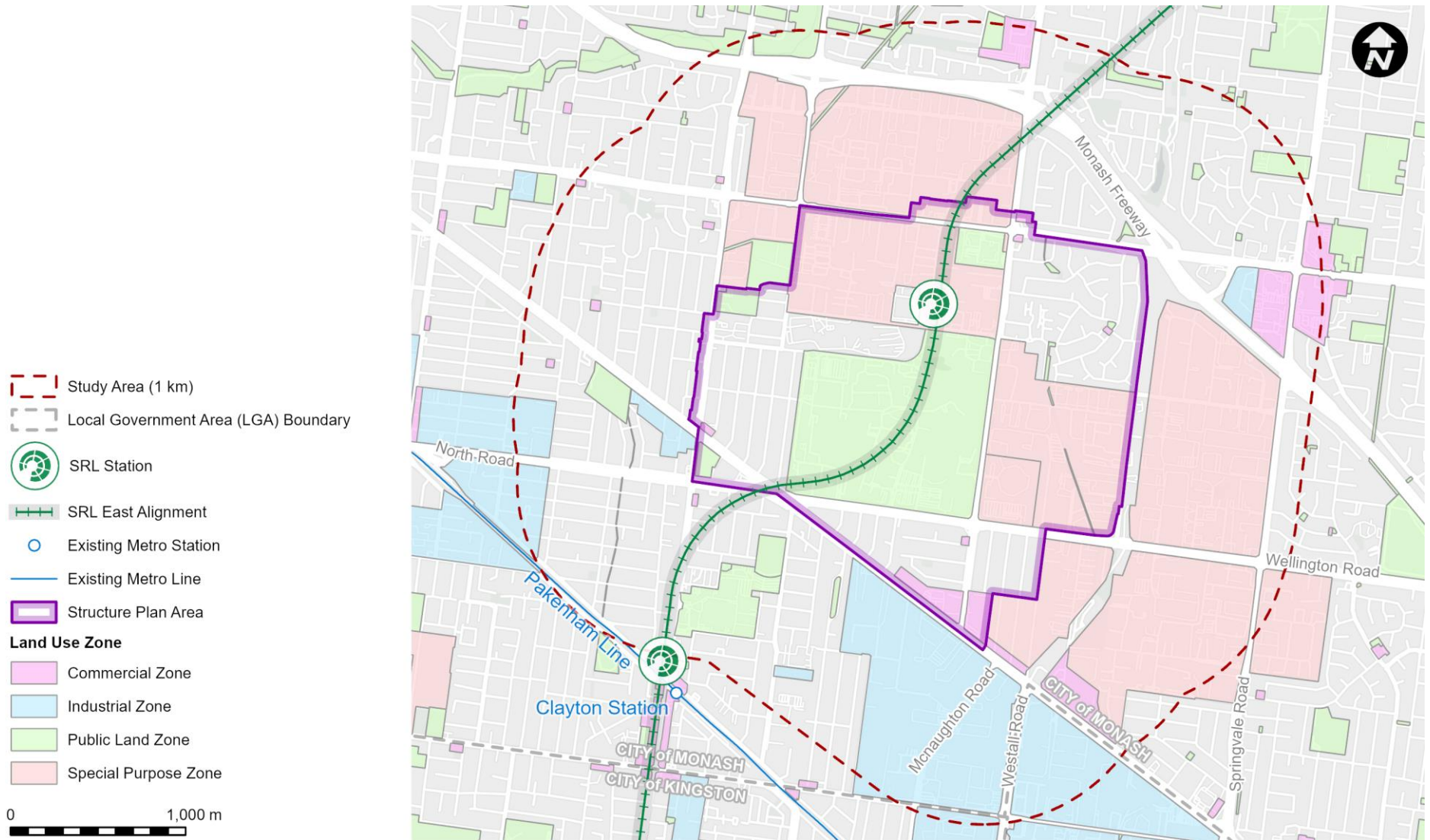


FIGURE 3.3 MONASH STRUCTURE PLAN AREA AND STUDY AREA

3.5 Glen Waverley Structure Plan Area

The Glen Waverley Structure Plan Area surrounds the SRL station at Glen Waverley in the City of Monash. It is generally bordered by residential properties along Madeline Street to the north, Danien Street and The Outlook to the east, Waverley Road to the south and Kinnoull Grove and Rose Avenue to the west.

Coleman Parade and the existing Glen Waverley Line intersect the centre of the Structure Plan Area in an east-west alignment.

Key arterial roads include Springvale Road which intersects the Structure Plan Area in a north-south alignment, and High Street Road and Waverley Road.

The Glen Waverley Structure Plan Area and the 1-kilometre radius Study Area are shown in Figure 3.4.

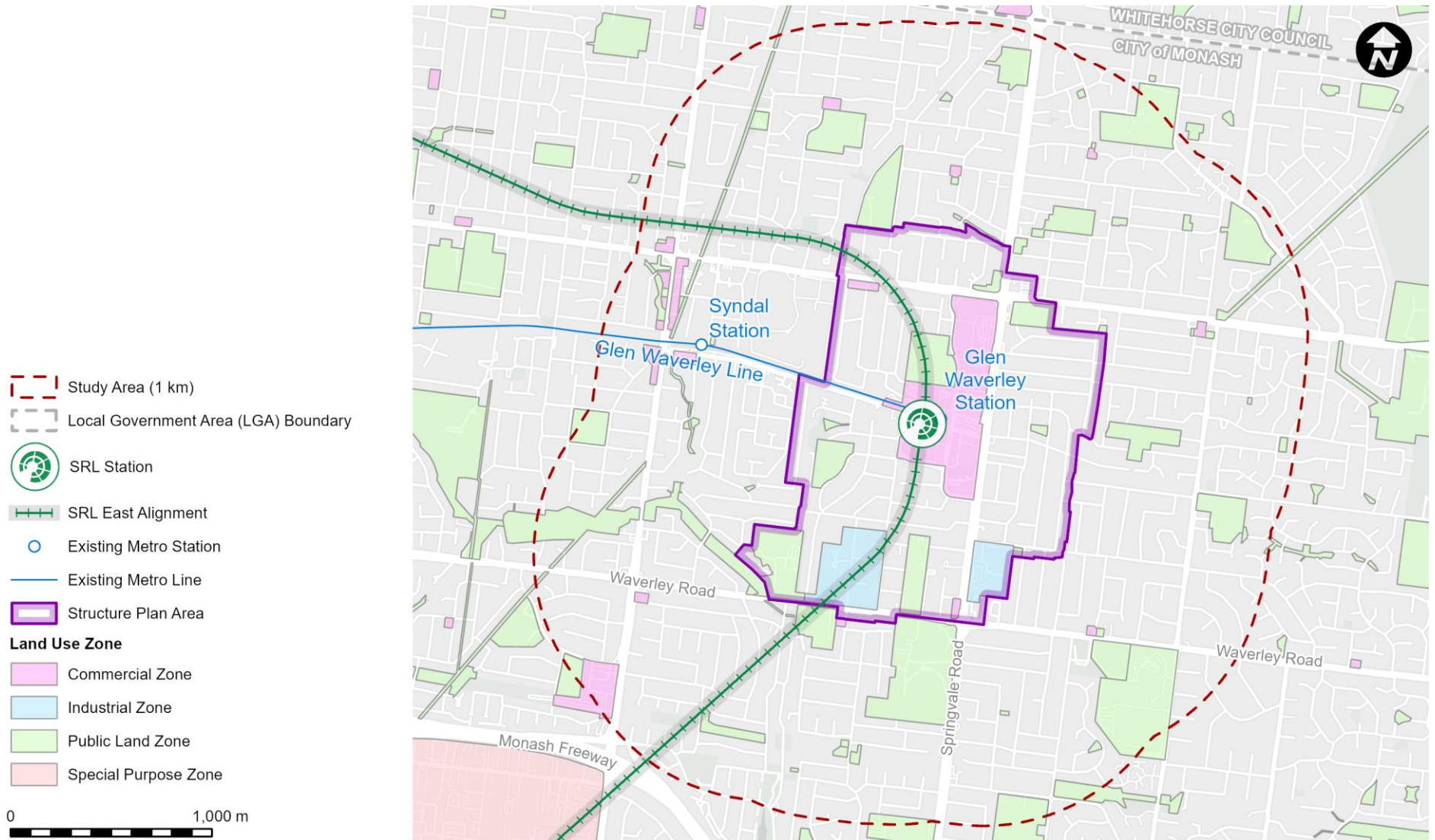


FIGURE 3.4 GLEN WAVERLEY STRUCTURE PLAN AREA AND STUDY AREA

3.6 Burwood Structure Plan Area

The Burwood Structure Plan Area surrounds the SRL station at Burwood. The Structure Plan Area is mainly located in the City of Whitehorse. The southern portion of the Structure Plan Area south of Highbury Road extends into the City of Monash.

The Structure Plan Area is generally bounded by Uganda Street, Deakin University, Inverness Avenue, Bronte Avenue and Yarra Bing Crescent to the north, Andrews Street, Wridgway Avenue, Prospect Street and Huntingdale Road to the east, Zodiac Street, Ashwood Drive, Carmody Street and Barlyn Road to the south and Sixth Avenue, Evans Street, Warrigal Road, Parer Street and Meldan Street to the west.

Burwood Highway intersects the centre of the Structure Plan Area in an east-west alignment.

Deakin University Burwood campus is located in the Structure Plan Area.

The Burwood Structure Plan Area and the 1-kilometre radius Study Area are shown in Figure 3.5.

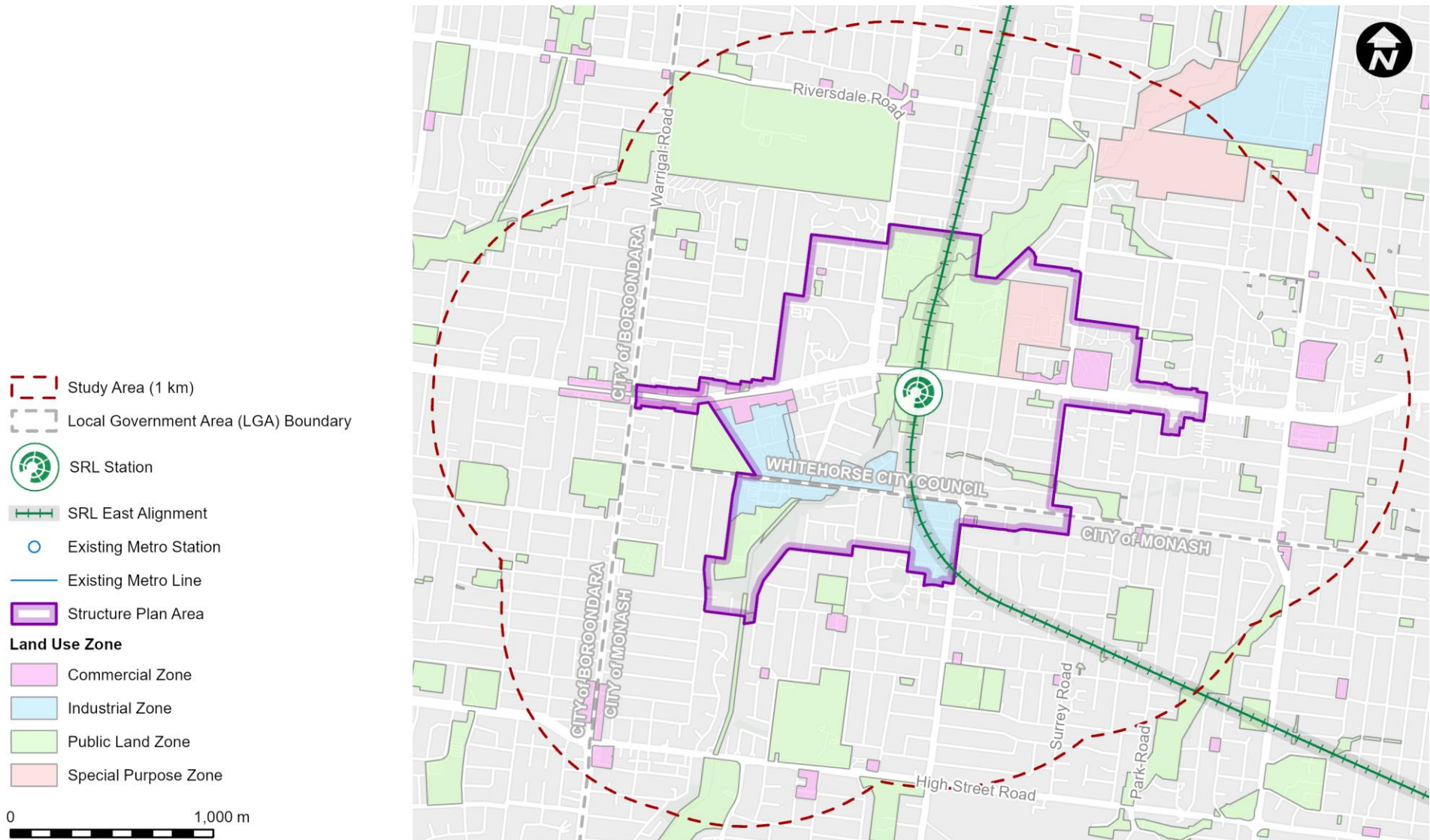


FIGURE 3.5 BURWOOD STRUCTURE PLAN AREA AND STUDY AREA

3.7 Box Hill Structure Plan Area

The Box Hill Structure Plan Area surrounds the SRL station at Box Hill in the City of Whitehorse. It is generally bordered by Severn Street and McKean Street to the north, Clota Avenue and Laburnum Street to the east, slightly west of Elgar Road to the west and Canterbury Road to the south.

Whitehorse Road / Maroondah Highway and the existing Belgrave / Lilydale Line intersect the centre of the Structure Plan Area in an east-west alignment.

The main road corridors in the Structure Plan Area include Whitehorse Road, Elgar Road and Station Street.

The Box Hill Structure Plan Area and the 1-kilometre radius Study Area are shown in Figure 3.6.

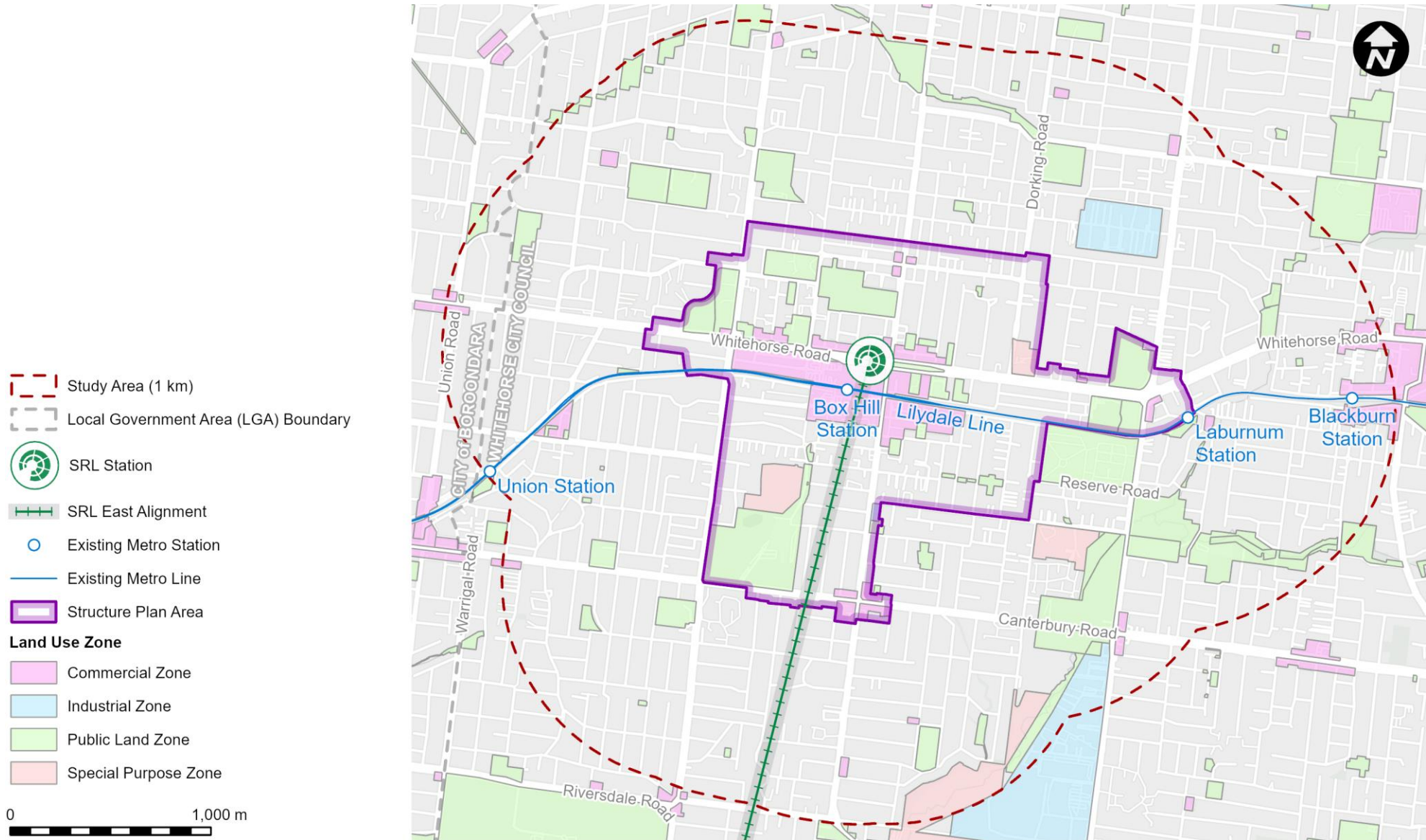


FIGURE 3.6 BOX HILL STRUCTURE PLAN AREA AND STUDY AREA

4 Legislative and policy context

This section summarises legislation, policies and documents relevant to the odour and dust technical assessment.

4.1 Victoria Planning Provisions

The Victoria Planning Provisions (VPPs) are established under Part 1A of the *Planning and Environment Act 1987* (Vic). The VPPs form the framework (template) used for all Victoria’s municipal planning schemes.

The VPPs relevant to planning for land use compatibility and the separation of sensitive land use from industrial land use are listed in Table 4.1. These clauses apply equally to each SRL East Structure Plan Area as they are contained in the local planning policies of municipal planning schemes.

Clauses 13.06-1S and 13.07-1S recommend consideration of EPA Victoria’s Separation Distance Guideline as a relevant policy document.

TABLE 4.1 VICTORIA PLANNING PROVISIONS RELEVANT TO ODOUR AND DUST

VPP CLAUSE	OBJECTIVE / DESCRIPTION
Clause 13 – Environmental risk and safety	
Clause 13.06-1S – Air quality management	Clause 13.06–1S aims to assist the protection and improvement of air quality in Victoria by ensuring that wherever possible, there is a suitable separation between land uses that reduce amenity and sensitive land uses. Clause 13.06–1S also references the Environment Reference Standard (see Section 4.4 below) as a relevant policy document.
Clause 13.07-1S – Land use compatibility	Clause 13.07–1S seeks to protect community amenity, human health and safety while facilitating appropriate commercial, industrial, infrastructure or other uses with potential adverse off-site impacts. To achieve this, the use of land use separation is included as a relevant strategy.
Clause 17.03 – Economic Development - Industry	
Clause 17.03-1S – Industrial land supply	These clauses include strategies to provided appropriate buffer areas can be provided to sensitive land uses and to protect from encroachment of sensitive land uses that would otherwise adversely affect the industry’s viability.
Clause 17.03-2S – Sustainable industry	
Clause 44 - Land management overlays	
Clause 44.08 – Buffer Overlay Area	Clause 44.08 provides a tool to identify areas with potential for off-site impacts on safety and human health or significant off-site impacts on amenity. Further description of the Buffer Overlay Area is provided in Section 4.2 below (Planning Practice Note 92).
Clause 53 – General requirements and performance standards	
Clause 53.10 – Uses and activities with potential adverse impacts.	Clause 53.10 identifies types of land uses and activities which, if not appropriately designed and located, may cause offence or unacceptable risk to the neighbourhood. Threshold distances are provided in a table for different types of uses and activities with a variety of potential adverse impacts, including but not limited to air quality amenity. An application to use land for an industry, utility installation or warehouse for a purpose listed in the table of Clause 53.10 must be referred to EPA Victoria if the threshold distance is not able to be met or no threshold distance is specified. While Clause 53.10 applies to the listed uses or activities with potential adverse impacts, it can be useful in understanding potential risks to the surrounding land use. These risks are also further explained in Planning Practice Note 92 which outlines the requirements relating to these buffers.

VPP CLAUSE	OBJECTIVE / DESCRIPTION
Clause 65 – Decision Guidelines	
Clause 65.01 – Approval of an application or plan	Clause 65.01 is relevant as it requires that, before deciding on an application or approval of a plan, the responsible authority must consider, as appropriate, the effect on the environment, human health and amenity of the area.

4.2 Planning Practice Note 92

Planning Practice Note 92 (PPN92, Department of Transport and Planning 2021, as amended 2023) provides guidance on planning for land use compatibility and the Planning Policy Framework. It also outlines the requirements in the VPPs relating to the management of buffers, including Clause 53.10 and the Buffer Area Overlay (BAO) tool in Clause 44.08 of the VPPs. In PPN92, the term 'buffer' is used to refer to the separation between an industry and sensitive land use, and is defined as 'land used to separate or manage incompatible land uses, often industrial uses and sensitive uses, to ensure land use compatibility and avoid land use conflict'.

PPN92 states that the BAO is not intended to address lower level amenity impacts such as typical dust and odour impacts, which are unlikely to have significant impacts over time. A risk exposure matrix which considers the consequences and the likelihood of exposure in Appendix C of PPN92 provides guidance on when a BAO might be applicable.

PPN92 states that while Clause 53.10 of the VPPs helps to ensure that industry establishes appropriately, the BAO supports implementation of the objectives and strategies of Clause 13.07-1S of the VPPs by addressing the reverse situation so that land use and development around existing industry is appropriate.

Clause 53.10 is therefore not directly relevant to the odour and dust assessments in the SRL East Structure Plan Areas. Instead, the principles in PPN92 and the Separation Distance Guideline were the primary policy guidance for the odour and dust assessments.

PPN92 recommends consideration of EPA Victoria Publication 1518 – *Recommended separation distances for industrial residual air emissions* as a relevant policy document. EPA Victoria Publication 1518 was superseded by the Separation Distance Guideline in August 2024. It is assumed that PPN92 will be updated at some stage to refer to the new guideline.

4.3 Environment Protection Act 2017

The *Environment Protection Act 2017* (Vic) sets out environmental obligations and protections for Victorians.

The cornerstone of the Environment Protection Act is the General Environmental Duty (GED). The GED requires anyone conducting an activity that poses a risk of harm to human health or the environment from pollution or waste to understand those risks and put in place reasonably practicable measures to eliminate or reduce identified risks. The GED applies to all Victorians, including industries and developers. Doing what is reasonably practicable means putting in place proportionate controls to minimise the risk of harm. If eliminating the risk of harm is not reasonably practicable, then the risk of harm must be reduced so far as reasonably practicable.

Demonstrating that a person or business undertaking the activity has done what is reasonably practicable can be achieved if (EPA Victoria Publication 1856):

- Well-established effective practices or controls have been adopted to eliminate or minimise risk, and/or

- Where well-established practices or controls do not exist, it can be shown that effective controls have been assessed and adopted.

4.4 Environment Reference Standard

The Environment Reference Standard (ERS) is a subordinate instrument made under the Environment Protection Act. The ERS was gazetted on 26 May 2021 and was amended on 29 March 2022 (Victoria Government 2022). The ERS identifies environmental values for Victoria in the areas of air quality, noise, water and contaminated land, and also defines indicators and objectives to measure those values.

The ERS supports the protection of the environment from pollution and waste by providing a benchmark to assess and report on environmental conditions in the whole or any part of Victoria. The ERS does not set out enforceable compliance limits. Rather, risks of harm to human health and the environment from pollution and waste must be minimised as far as reasonably practicable, in accordance with the GED.

Part 2 of the ERS documents environmental values of the ambient air environment, along with indicators and objectives for the environment that are intended to support these values.

The following environmental values are relevant to the ambient air environment:

- Life, health and wellbeing of humans
- Life health and well-being of other forms of life including the protection of ecosystems and biodiversity
- Local amenity and aesthetic enjoyment
- Visibility
- The useful life and aesthetic appearance of buildings structures property and materials
- Climate systems that are consistent with human development, the life, health and well-being of humans and the protection of ecosystems and biodiversity.

The ERS defines objectives which are concentrations of air quality indicators against which the achievement, maintenance of, or risk to, an environmental value is assessed. The air quality indicators in the ERS include the priority air quality pollutants specified in the National Environment Protection Measure for Ambient Air Quality (NEPM (AAQ)) (National Environment Protection Council 2021) which have the potential to cause adverse human health impacts, visibility-reducing particles, and odour. This separation distance assessment considers amenity impacts from odour and dust, and does not address risks to human health and the environment, so it is considered that only the objective for odour is relevant to this assessment – *'An air environment that is free from offensive odours from commercial, industrial, trade and domestic activities'*. There is no equivalent objective or indicator in the ERS for nuisance dust, although the environmental values in the ERS listed above apply equally to nuisance odour and dust.

Table 4.2 of the ERS also provides guidance on the environmental values which apply to different land categories. The environmental value of aesthetics applies to parks and reserves, sensitive receptors, recreational/open space and commercial use but not to industrial use.

4.5 Environment Protection Regulations

The *Environment Protection Regulations 2021* (EPA Victoria 2021, last updated 8 November 2023) are a subordinate instrument of the Environment Protection Act and cover a broad suite of topics including contaminated land, the new framework for permissions, waste management and environmental management, including air quality, as well as administrative matters relating to offences, fees and transitional arrangements.

Part 5 (Environmental Management) of the Environment Protection Regulations addresses matters including air. Part 5.2 – Air (sections 103 to 112) specifies obligations on manufacturers and suppliers relating to air pollution, including those relating to the National Pollution Inventory (NPI).

Chapter 3 of the Environment Protection Regulations addresses the requirement for businesses to hold permissions for activities carried out, with a detailed list of industry types and production or activity thresholds in Schedule 1 of the Environment Protection Regulations. In many cases the production thresholds that trigger a requirement to hold an operating licence are the same production thresholds in the Separation Distance Guideline that trigger a requirement for a separation distance. The presence or absence of an operating licence is therefore a useful tool to determine if a particular industry may also exceed the production threshold, prompting a separation distance. This approach was applied to the odour and dust technical assessment for SRL East Structure Plan Areas where relevant.

4.6 Separation Distance Guideline

In August 2024, EPA Victoria released the Separation Distance Guideline. The new guideline replaces EPA Victoria Publication 1518 – *Recommended separation distances for industrial residual air emissions*, and describes EPA Victoria’s separation distance policy.

4.6.1 PUBLICATION OVERVIEW

The Separation Distance Guideline uses the term ‘separation distance’ rather than ‘threshold distance’ or ‘buffer’ which are used in Clause 53.10 and PPN92 respectively. Section 2.1 of Separation Distance Guideline states that these terms are similar in concept but have specific meanings and are different for key reasons. Buffers and threshold distances may contain multiple separation distances that respond to various risks to human health, public safety and amenity (including noise), and the buffer will extend to the largest of these separation distances.

A key difference between the Separation Distance Guideline and EPA Victoria Publication 1518 is that in the new guideline, the default separation distances account for unintended emissions occurring as part of an industry’s day-to-day operations that can’t be mitigated further, rather than industrial residual air emissions under abnormal operating conditions. The Separation Distance Guideline explains that unlike emissions under normal operating conditions, upset conditions are often irregular or sporadic and impacts can extend beyond the distance for unintended emissions. These upset conditions should be managed by implementing reasonably practicable contingency measures.

The Separation Distance Guideline states that separation distances are intended to accommodate routine or day-to-day emissions and unintended off-site emissions. Where there are routine or day-to-day emissions from a premises, there may still be unintended off-site emissions experienced at or beyond the boundary of the source premises. Unlike routine emissions, unintended emissions are in addition to routine emissions and are often intermittent or episodic. They may occur due to:

- The nature of the operation
- Minor changes in weather conditions

- Minor accidents
- Minor equipment failure.

The Separation Distance Guideline states that unintended off-site emissions may still occur even when an industry or activity is operating in accordance with all relevant statutory obligations, including minimising the risk of harm to human health or the environment from pollution and waste so far as reasonably practicable. Separation distances are intended to allow unintended emissions to disperse, and in doing so, minimise amenity risks for any nearby sensitive land uses. However, separation distances are not to be used by duty holders as an alternative to controlling off-site impacts or meeting legal obligations.

The unintended off-site emissions that separation distances account for do not extend to those resulting from major abnormal weather conditions, major accidents, or major equipment failure from activities.

The Separation Distance Guideline identifies the use of separation distances can:

- Prevent land use conflict
- Help protect the health and amenity of sensitive land uses
- Minimise risks and mitigate odour and dust impacts from certain industries and activities
- Help protect industrial and commercial land uses and activities
- Provide local government, industry, developers and the community with some certainty about future land use.

The default separation distances listed in the Separation Distance Guideline assume the industry or activity is meeting the obligations of the GED (relevant to odour or dust emissions).

Sections 3.1 and 4.2.3 of the Separation Distance Guideline describe the agent of change principle and the responsibility of the person or entity proposing a land use or development (new or expanding, modified or varied) as part of their GED to determine whether there is a risk of dust or odour impacts. This is true for proposed sensitive land uses, as well as new industrial developments.

The policy reflected in the Separation Distance Guideline, which is also referred to in the VPPs, was adopted as the primary reference for separation distances for this odour and dust technical assessment.

Figure 4.1 summarises the separation distance assessment methodology from the Separation Distance Guideline in a flow diagram, sourced from Figure 4 in the guideline. The rationale in Figure 4.1 was adopted for the separation distance assessments in the SRL East Structure Plan Areas.

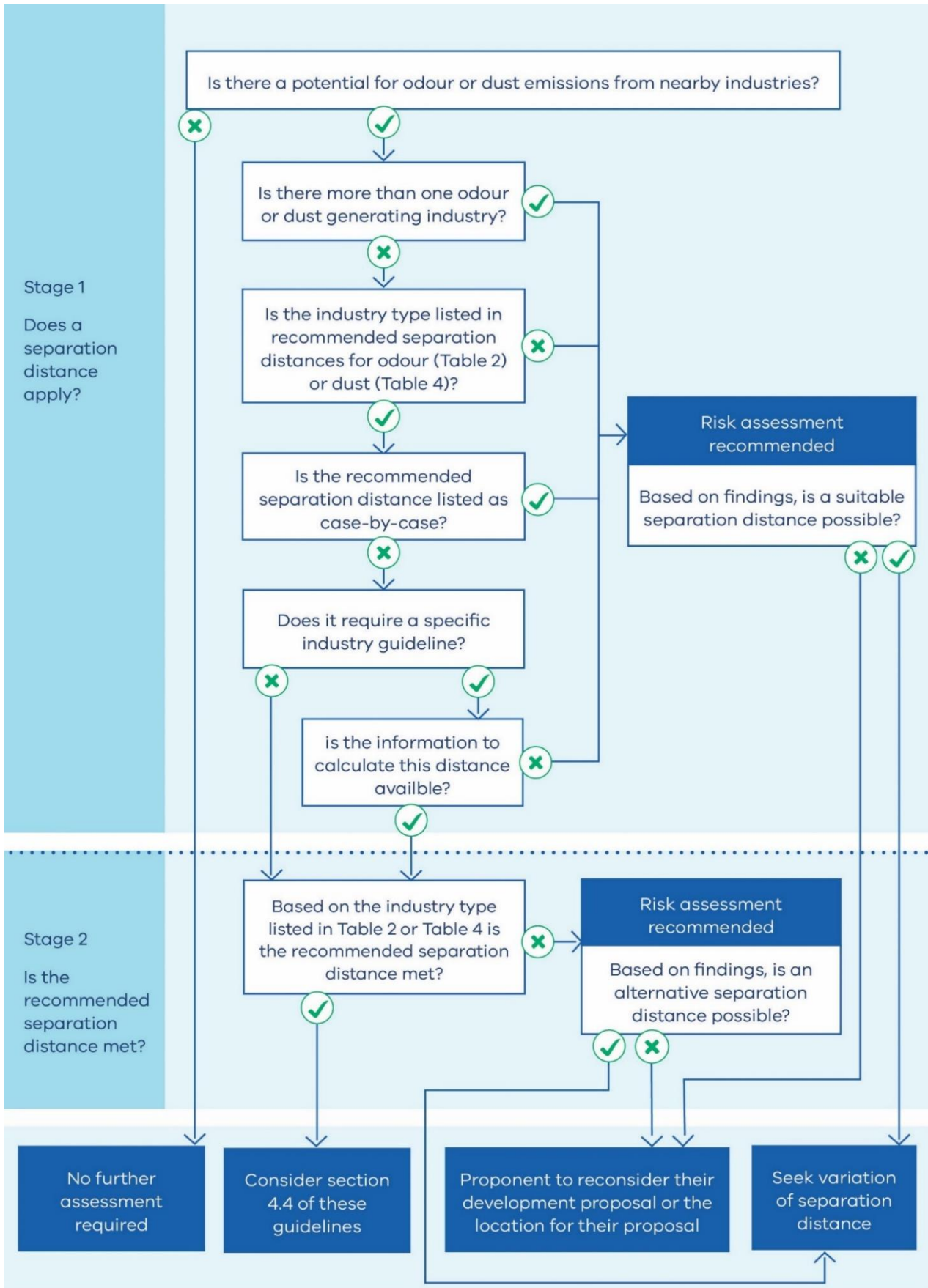


FIGURE 4.1 SEPARATION DISTANCE ASSESSMENT FLOW DIAGRAM

4.6.2 SEPARATION DISTANCE END POINTS

A key issue is the two points the separation distance is measured between. The Separation Distance Guideline recommends the following:

- For a residential sensitive receptor, the end point of the separation distance should be measured to the nearest residential property boundary
- For a rural sensitive receptor, the end point of the separation distance should be measured to the nearest perimeter of the sensitive land use area (for example a house on a rural property, not the actual property boundary)
- The starting point for the separation distance is the 'activity boundary' of the industrial activity, where the 'activity boundary' includes all current or proposed activities that may produce odour or dust emissions.

This approach is shown in Figure 4.2, which is reproduced from Figure 1 of the Separation Distance Guideline.

All separation distances for this assessment were initially measured from the property boundary rather than the boundary of the actual activity. After further investigation through site visits or area reconnaissance and where sufficient information was available, the separation distances for some industries were measured from the activity boundary for a more accurate indication of the risks these industries posed. For industries not being further investigated, some of the separation distances shown in Section 6 of this report may be conservative and larger than required if the activity boundary was identified.

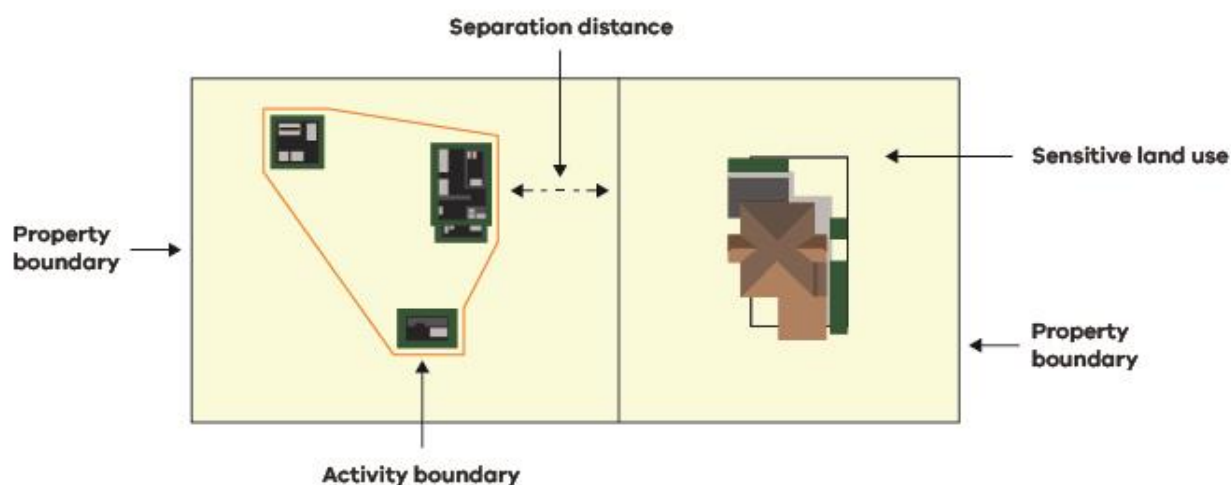


FIGURE 4.2 MEASURING SEPARATION DISTANCES IN AN URBAN ENVIRONMENT

4.6.3 DEFINITION OF SENSITIVE LAND USE FOR ODOUR AND DUST

Appendix D of the Separation Distance Guideline defines sensitive land use in the context of odour and dust emissions based on the land use terms defined in clause 73.03 of the Victoria Planning Provisions (VPPs). This definition is:

'Any land use that requires a focus on protecting human health and wellbeing, local amenity and aesthetic enjoyment. Examples of such sensitive land uses include, but are not limited to:

- *Dwellings and private open space (including detached dwellings, multiple dwellings, flat/apartment buildings, row dwellings and semi-detached dwellings)*

- *Accommodation (excluding caretaker's residence)*
- *Child care centres*
- *Education centres*
- *Informal outdoor recreation that is adjacent to residential zones*
- *Camping and caravan parks*
- *Indoor recreation facility*
- *Medical centres*
- *Hospitals*
- *Residential aged care facility and retirement villages*
- *Outdoor recreation facility, open sports grounds, (regular public use, for example sporting fields) adjacent to residential zones.'*

This definition of sensitive land use is also consistent with that provided in Table 4.2 of the ERS, and was adopted for this assessment. The term 'sensitive receptor' is also used in this assessment interchangeably with sensitive land use.

4.6.4 FLEXIBILITY AND VARIATION OF SEPARATION DISTANCES

The separation distances associated with odorous and dust-generating industries listed in the Separation Distance Guideline are provided as a default guideline. In this SRL East Plan – Odour and Dust Technical Report, these are termed the 'default' separation distances. Some separation distances for some industry types are identified as 'case-by-case' rather than being provided with a default separation distance.

The Separation Distance Guideline states that if a proponent wishes to seek a variation of a default separation distance for odour or dust, they should complete a risk assessment in support of their application. EPA Victoria recommends that a proponent only seeks to vary a default separation distance for odour or dust if a risk assessment determines that an alternative separation distance is appropriate, based on the factors detailed in the decision-making process (such as Figure 4.1) and the EPA Victoria guidance for assessing odour (EPA Victoria Publication 1883) or dust (EPA Victoria Publication 1943).

An amended approach was adopted for the odour and dust assessment in the SRL East Structure Plan Areas. For any industry where the default separation distance encroaches into a Structure Plan Area, an odour or dust risk assessment consistent with the Separation Distance Guideline was conducted at the location where the encroachment occurs, to assess whether any mitigation or land use controls are necessary in that location. For most industries affected in this way, it was not necessary to fully identify an alternative separation distance for the industry concerned because the risk assessment at the Structure Plan Area boundary concluded a low risk of odour or dust exposure.

4.6.5 SEPARATION DISTANCE PRODUCTION THRESHOLDS

For many of the industry activity types listed in the Separation Distance Guideline, the default separation distance is dependent on a production threshold. As noted in Section 4.5 above, most of these thresholds are the same as the thresholds to require a permission listed in the Environment Protection Regulations.

For most of the businesses identified, the production threshold was unknown and so the trigger for requiring a separation distance could not be confirmed. If these industry types were listed in the Separation Distance Guideline with a production-dependent threshold, and the same threshold is provided in the Environment Protection Regulations, it was concluded that for those specific premises it would be unlikely the business would qualify for a separation distance because it did not hold an operating licence.

4.6.6 CONSULTATION WITH EPA VICTORIA

EPA Victoria was consulted about the interpretation of the industry type definitions in the Separation Distance Guideline (in draft form, at the time), and provided the following written feedback on 11 April 2024:

- Dry cleaning activities are not included in the Separation Distance Guideline as an odour relevant source that require a separation distance. A number of dry cleaning facilities were identified during the odour and dust assessment in the SRL East Structure Plan Areas, by virtue of the fact they hold an EPA Registration (which is a key trigger for consideration in the assessment methodology). They are included for completeness, but as per the consultation with EPA Victoria, separation distances are generally not proposed to be applied to these facilities.
- The 'bulk storage of volatile odorous chemicals' category was intended for odour risk purposes, as these systems (depending on the technology) can off-gas and create emissions from transfer, decanting and cleaning activities, but should only apply to very large tank farms or terminals.
- Transfer stations without food organics and garden organics (FOGO)-type putrescible wastes and kerbside collections may have dust issues, and only the dust separation distance applies.
- Chipped tree branches are not putrescible and do not pose any significant odour risk, but the relevant dust separation distance applies.

4.7 Landfill Buffer Guideline

The EPA Victoria Publication – *Landfill buffer guideline* (herein referred to as the 'Landfill Buffer Guideline') was released alongside the Separation Distance Guideline, in August 2024. The new policy replaces EPA Victoria Publication 1642. The Landfill Buffer Guideline provides guidance on separation distances for open and closed landfills. Separation distances for closed landfills can be required to avoid or minimise a range of nuisance or environmental impacts, but these potential impacts are significantly less than those for operating landfills. The risk of amenity impacts from closed landfills is mainly limited to landfill gas migration.

The Landfill Buffer Guideline states that if a proposal is 'on the site of a closed landfill' the applicant should contact EPA Victoria for advice. If the proposal is in the buffer of a closed landfill but not on the landfill site, any constraints to the proposal's land use will be governed by recommendations in the Landfill Buffer Guideline, which covers a range of potential environmental risks depending on the history of the landfill site. Potential development constraints related closed landfills are outside the scope of this report and instead are addressed in the *SRL East Structure Plan – Contaminated Land Technical Report* (AJM-JV 2025).

In addition, there are no operating landfills in the SRL East Study Areas considered for the odour and dust technical assessment. Therefore, the Landfill Buffer Guideline is not utilised further in this assessment.

4.8 EPA Victoria Publication 1883

EPA Victoria Publication 1883 – *Guidance for assessing odour* provides information on how to assess the risk posed by odour emission sources and to understand the receiving environment where effects might occur. EPA Victoria Publication 1883 contains tools to identify the risk of odour impacts occurring according to the scale and complexity of the scenario being examined.

Three levels of assessment are provided in EPA Victoria Publication 1883, with progression through each level of assessment depending on the scale or complexity of the scenario. The Level 1 assessment is a 'gateway assessment' and considers the wind direction and duration of minor odour emission sources. The Level 2 assessment consists of a cumulative effects test considering the effects of multiple dispersed odour sources,

and a source-pathway receiving environment tool to calculate an odour risk score based on the source hazard, exposure pathway and receiving environment sensitivity. The Level 3 assessment provides detailed risk assessment tools for issues that are complex or where the other levels of assessment have been exhausted because there is not enough evidence to establish what the odour risk is. Dispersion modelling, odour diaries and field odour surveillance are examples of tools which may contribute to a Level 3 odour assessment.

The methods recommended in EPA Victoria Publication 1883 were applied in this assessment where relevant, as detailed in Appendix A.

4.9 EPA Victoria Publication 1943

EPA Victoria Publication 1943 – *Guidance for assessing nuisance dust* provides a framework to assess risks from nuisance dust. It provides assessment tools designed for a broad audience including planners and assessors, and additional tools to consider for more complex applications or where cumulative sources are an issue. The nuisance dust risk assessment consists of four steps:

- Step 1: Determine the hazard potential of the source. Key considerations include the size of the source, type of emission, and level of control over dust emissions.
- Step 2: Determine the effectiveness of the exposure pathway between the source and receiving environment. Key considerations include distance, meteorology, terrain, and intervening land use.
- Step 3: Determine the sensitivity of the receiving environment at the receptor. Key considerations include the sensitivity of the receptor (existing receptors and/or proposed land uses) and historical context.
- Step 4: Determine the overall risk of nuisance dust impacts occurring based on the risk of the exposure and the sensitivity of the receiving environment.

The methods recommended in EPA Victoria Publication 1943 were applied for the odour and dust assessment in the SRL East Study Areas where relevant, as detailed in Appendix B.

5 Existing conditions

Industries currently operating in the Study Areas with potential to emit odour or dust that would justify a separation distance from any development in the SRL East Structure Plan Areas were identified.

This included activities in each SRL East Structure Plan Area as well as a 1-kilometre radius around each Structure Plan Area.

5.1 Cheltenham Study Area

Table 5.1 lists the businesses and facilities in the Cheltenham Study Area conducting activities with potential to emit odour or dust.

The name of the business or facility is identified, along with the address(es) where the activity is occurring, the type of activity, the type of potential amenity impact (dust or odour), and the potential trigger for a separation distance (EPA Victoria permission, NPI or PSR-listed).

Figure 5.1 shows the locations of the businesses and facilities.

There are multiple bakeries of similar size in the Cheltenham Study Area, which are condensed into a single entry in Table 5.1. They are not shown in Figure 5.1 to avoid creating unnecessary clutter on the map, because as discussed in Section 2.4, none of the bakeries are relevant to the consideration of separation distances later in this report.

TABLE 5.1 CHELTENHAM IDENTIFIED INDUSTRIES WITH POTENTIAL ODOUR OR DUST IMPACTS

ID	BUSINESS / FACILITY NAME	ADDRESS	OPERATIONS	POTENTIAL AMENITY IMPACT	POTENTIAL TRIGGER FOR SEPARATION DISTANCE	DATES
Within Structure Plan Area						
1	Ecolab	350 Reserve Road, Cheltenham VIC 3192	Manufacture of technology and systems that specialise in treatment, purification, cleaning and hygiene of water.	Odour	NPI-listed	NPI data date range: 01/07/2022 to 30/06/2023 Last updated: 28/03/2024
2	Laminex Group	332 Bay Road, Cheltenham VIC 3192	Manufacturer of compact boards and high pressure laminates.	Odour	NPI-listed	NPI data date range: 01/07/2022 to 30/06/2023 Last updated: 28/03/2024
					EPA Licence: G01 (Chemical works)	Issued: 26/01/1979 Expiry: 31/12/9999
3	Bad Shepherd Brewing Co.	386 Reserve Road, Cheltenham VIC 3192	Microbrewery and bar / restaurant	Odour	Industry listed in the Separation Distance Guideline	-
4	Ideal Drum Co.	3 Wandarri Court, Cheltenham VIC 3192	Steel drum supplier	Odour	EPA Licence: A01 (Reportable priority waste management)	Issued: 04/09/1991 Expiry: 31/12/9999

ID	BUSINESS / FACILITY NAME	ADDRESS	OPERATIONS	POTENTIAL AMENITY IMPACT	POTENTIAL TRIGGER FOR SEPARATION DISTANCE	DATES
5	23 degrees coffee	1 Belrose Avenue, Cheltenham VIC 3192	Coffee Roastery	Odour	Industry listed in the Separation Distance Guideline	-
6	Innovag Pty Ltd	37/328 Reserve Road, Cheltenham VIC 3192	Electronic device manufacturer	Odour	Industry listed in the Separation Distance Guideline	-
7	InteriorCo Vic	101 Tulip Street, Cheltenham VIC 3192	Manufacturer and wholesaler of office furniture providing installation, fitouts, mechanical and maintenance services	Odour	EPA Registration: A13c (Waste and resource recovery – small)	Issued: 18/11/2021 Expiry: 17/11/2026
8	Future Recycling	1/144 Talinga Road, Cheltenham VIC 3192	Waste and recycling centre	Dust	EPA Registration: A13c (Waste and resource recovery – small)	Issued: 01/09/2023 Expiry: 01/09/2028
9	Alligator Glass	1/249 Bay Road, Cheltenham VIC 3192	Glaziers cutting, sandblasting and installing glass features	Dust	Industry listed in the Separation Distance Guideline	-
10	Columbia Australia Pty Ltd	2-8 Phillip Street, Cheltenham VIC 3192	Manufacturer of precision plastic injection moulded parts and metal components	Odour	Industry listed in the Separation Distance Guideline	-
11	Inspired Waste Solutions	G01/75 Tulip Street, Cheltenham VIC 3192	Waste collection and recycling services	Odour	Industry listed in the Separation Distance Guideline	-
12	My Pet Treats	5/23-25 Park Road, Cheltenham VIC 3192	Pet food manufacturer	Odour	Industry listed in the Separation Distance Guideline	-
-	Bakeries (multiple)	Multiple	Bakery	Odour	Industry listed in the Separation Distance Guideline	-

Within 1-kilometre radius of Structure Plan Area

13	Greatorex Textile Industries Pty Ltd	5 Independence Street, Moorabbin VIC 3189	Manufacturer of medical grade bandages, soft orthotics and meat netting	Odour	Industry listed in the Separation Distance Guideline	-
14	West End Henley Motors	U5 6-8 Henley Court, Moorabbin VIC 3189	Metals and e-waste disposal	Odour	EPA Registration: A13c (Waste and resource recovery – small)	Issued: 31/08/2023 Expiry: 30/08/2028
15	Reliance Worldwide Corporation	272 Wickham Road, Highett VIC 3190	Plumbing and heating services, waste transport	Odour	EPA Permit: A12 (Transporting waste out of Victoria)	Issued: 19/08/2022 Expiry: 03/11/2024
16	Amtor Flexibles	15 Keys Road, Moorabbin VIC 3189	Printing flexible packaging	Odour	NPI-listed	NPI data date range: 01/07/2022 to 30/06/2023 Last updated: 28/03/2024

ID	BUSINESS / FACILITY NAME	ADDRESS	OPERATIONS	POTENTIAL AMENITY IMPACT	POTENTIAL TRIGGER FOR SEPARATION DISTANCE	DATES
					EPA Licence: J01 (Printing)	Issued: 11/01/2014 Expiry: 31/12/9999
17	Coca-Cola Amatil	20 Levanswell Road, Moorabbin VIC 3189	Beverage manufacturing	Odour, dust	NPI-listed	NPI data date range: 01/07/2022 to 30/06/2023 Last updated: 28/03/2024
18	Medical Waste Away	1 Henley Court Moorabbin VIC 3189	Biomedical waste storage	Odour	EPA Registration: A21 (Temporary storage – biomedical waste)	Issued: 05/06/2023 Expiry: 04/06/2028
19	Carbon Autoworks	3/1a Levanswell Road Moorabbin VIC 3189	Vehicle maintenance and parts and recycling	Odour	EPA Registration: A13c (Waste and resource recovery – small)	Issued: 27/09/2022 Expiry: 26/09/2027
20	Waddell Engineering Pty Ltd	2 Commercial Road, Highett VIC 3190	Precision plastic and metal machining services	Dust	Industry listed in the Separation Distance Guideline	-

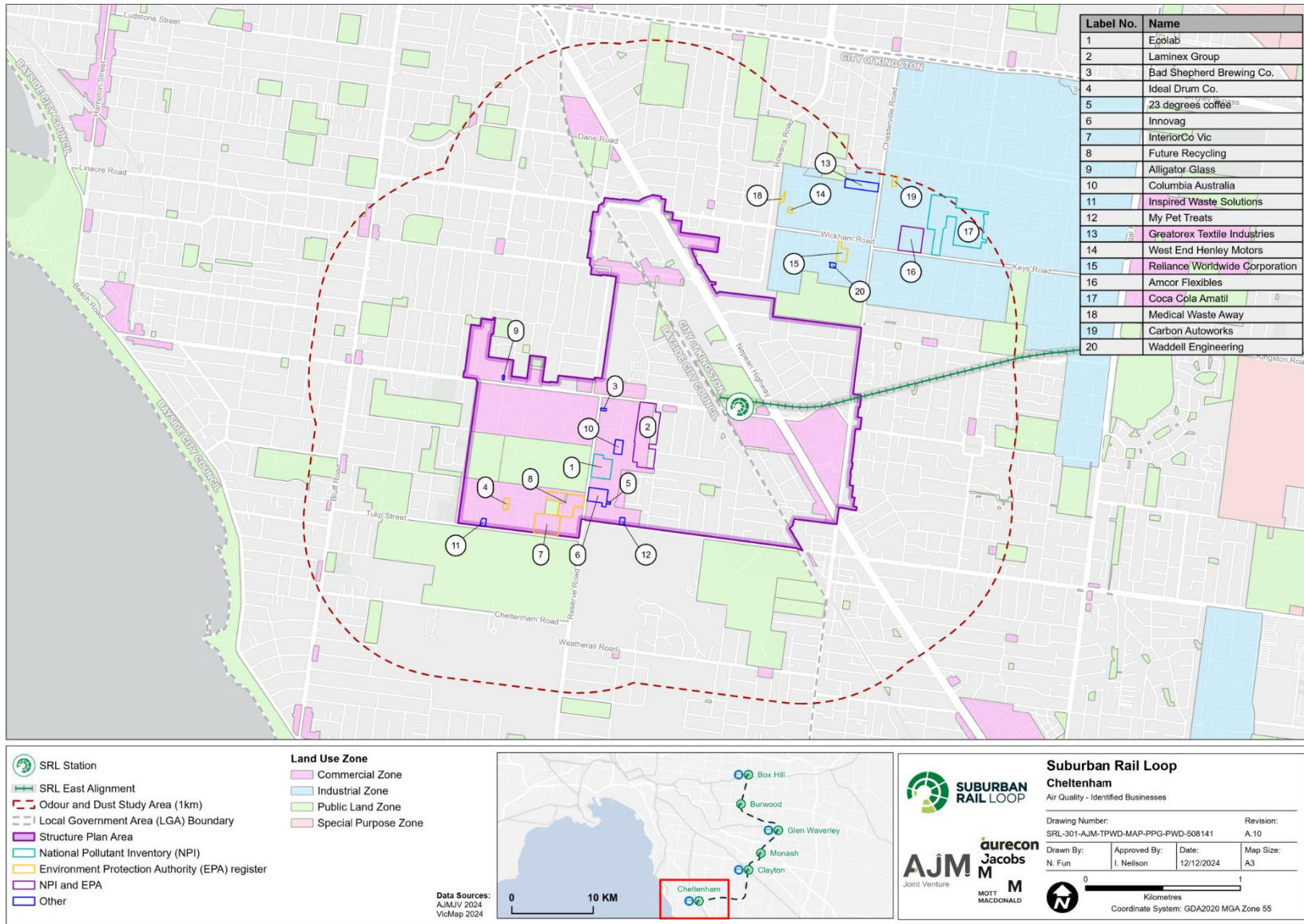


FIGURE 5.1 BUSINESSES / FACILITIES WITH POTENTIAL FOR ODOUR OR DUST IN CHELTENHAM STUDY AREA (ID COLUMN IN TABLE 5.1)

5.2 Clayton Study Area

Table 5.2 lists the businesses and facilities in the Clayton Study Area conducting activities with potential to emit odour or dust.

The name of the business or facility is identified, along with the address(es) where the activity is occurring, the type of activity, the type of potential amenity impact (dust or odour), and the potential trigger for a separation distance (EPA Victoria permission, NPI or PSR-listed).

If the business or facility is considered temporary (such as construction works), the entry is greyed out in Table 5.2, since it is unlikely to still exist when development in the Clayton Structure Plan Area begins.

Figure 5.2 shows the locations of the businesses and facilities.

Laing O'Rourke currently hold an EPA waste designation at the location of the SRL station at Monash under construction, as the managing contractor of initial and early works for SRL station construction. This permission is not included in Table 5.2.

There are multiple stone masons of similar size in the Clayton Study Area, which are condensed into a single entry in Table 5.2. They are not shown in Figure 5.2 to avoid creating unnecessary clutter on the map because, as discussed further in Section 6.2, none of the stone masons are relevant to the consideration of separation distances later in this report.

TABLE 5.2 CLAYTON IDENTIFIED INDUSTRIES WITH POTENTIAL ODOUR OR DUST IMPACTS

ID	BUSINESS / FACILITY NAME	ADDRESS	OPERATIONS	POTENTIAL AMENITY IMPACT	POTENTIAL TRIGGER FOR SEPARATION DISTANCE	DATES
Within Structure Plan Area						
1	Monash Health	246 Clayton Road, Clayton VIC 3168	Hospital	Odour	NPI-listed	NPI data date range: 01/07/2022 to 30/06/2023 Last updated: 28/03/2024
2	Stug Australia	1457 Centre Road, Clayton VIC 3168	Plastics and metals engineering	Odour	Industry listed in the Separation Distance Guideline	-
-	Stone masons (multiple)	Multiple	Stone article manufacture	Dust	Industry listed in the Separation Distance Guideline	-
Within 1-kilometre radius of Structure Plan Area						
3	Badge Constructions (SA) Pty Ltd	14 McNaughton Road, Clayton VIC 3168	Construction	Dust	EPA Waste Designation: Waste code N122; Fill material; and Not priority waste.	Issued: 31/05/2023 Expiry: 31/05/2025

ID	BUSINESS / FACILITY NAME	ADDRESS	OPERATIONS	POTENTIAL AMENITY IMPACT	POTENTIAL TRIGGER FOR SEPARATION DISTANCE	DATES
4	PPG Industries	14 McNaughton Road, Clayton VIC 3168	Manufacture of automotive, industrial, architectural and refinish coatings	Odour	EPA Licence: G01 (Chemical works) and G04 (Bulk storage)	Issued: 13/06/1980 Expiry: 31/12/9999
					NPI-listed	NPI data date range: 01/07/2022 to 30/06/2023 Last updated: 28/03/2024
5	Mazzeo Nominees Proprietary Limited (B&A Motor Body Repairs)	1848 Princes Highway, Clayton, Melbourne, Victoria, 3168	Automotive repairs	Odour	EPA Registration: A13c (Waste and resource recovery – small)	Issued: 12/03/2022 Expiry: 11/03/2027
6	TopGun Powder Coating	49 Winterton Road, Clayton VIC 3168	Industrial and general powder coating	Odour	Industry listed in the Separation Distance Guideline	-
7	Dulux Group (Australia) Pty Ltd	1956 Dandenong Road, Clayton VIC 3168	Paint and coatings research facility	Odour	EPA Waste Designation: Not priority waste; Waste code Z500	Issued: 08/03/2023 Expiry: 01/03/2028
8	Solenis Australia	1612-1624 Centre Road, Springvale VIC 3171	Manufacturing and warehousing of chemical products for pulp and paper and industrial water treatment industries	Odour	EPA Licence: G01 (Chemical Works)	Issued: 14/11/1985 Expiry: 31/12/9999
					NPI-listed	NPI data date range: 01/07/2022 to 30/06/2023 Last updated: 28/03/2024
9	Imlachs Pty Ltd	1596-1610 Centre Road, Springvale 3171	Self-serve auto parts seller	Odour	EPA Registration: A13c (Waste and resource recovery – small)	Issued: 21/07/2023 Expiry: 20/07/2028
10	Centre Scrap Metal Pty Ltd	1588-1590 Centre Road, Springvale VIC 3171	Car wrecking and auto parts reseller	Odour	EPA Registration: A13c (Waste and resource recovery – small)	Issued: 23/03/2022 Expiry: 22/03/2027
11	Essity Australasia	30-32 Westall Road, Springvale VIC 3171	Paper and tissue products manufacturer for the health industry	Odour	Industry listed in the Separation Distance Guideline	-
12	Visy Plastics	34 Westall Road, Springvale VIC 3171	Plastics and packaging manufacturer	Odour	Industry listed in the Separation Distance Guideline	-
13	Visy Packaging	14-34 Whiteside Road, Clayton South VIC 3169	Packaging manufacturer	Odour	EPA Licence: I05 (Can and drum coating)	Issued: 19/06/2019 Expiry: 31/12/9999
					NPI-listed	NPI data date range: 01/07/2022 to 30/06/2023 Last updated: 28/03/2024

ID	BUSINESS / FACILITY NAME	ADDRESS	OPERATIONS	POTENTIAL AMENITY IMPACT	POTENTIAL TRIGGER FOR SEPARATION DISTANCE	DATES
14	Hanson Construction Materials Pty Ltd	26-28 Westall Road, Springvale VIC 3171	Concrete storage	Dust	EPA Registration: A13c (Waste and resource recovery – small)	Issued: 15/09/2021 Expiry: 14/09/2026
15	Quality Bakers Australia	81-83 Fairbank Road, Clayton South VIC 3169	Bakery / Baked Products Factory	Odour	NPI-listed	NPI data date range: 01/07/2022 to 30/06/2023 Last updated: 28/03/2024
16	Service Stream Limited	145-157 Fairbank Road, Clayton South VIC 3169	Construction operation and maintenance of telecommunications, utilities and transport	Dust	EPA Registration: A22 (Temporary storage – asbestos)	Issued: 06/08/2021 Expiry: 06/08/2026
17	Ayazi Auto Parts Pty Ltd	223-229 Osborne Avenue, Clayton South VIC 3169	Auto parts retailer	Odour	EPA Registration: A13c (Waste and resource recovery – small)	Issued: 29/09/2021 Expiry: 29/09/2026
					EPA Registration: A13c (Waste and resource recovery – small)	Issued: 08/02/2022 Expiry: 07/02/2027
18	Olympic Polymers	86 Fairbank Road, Clayton South VIC 3169	Plastic resin manufacturer	Odour	EPA Registration: A13c (Waste and resource recovery – small)	Issued: 06/07/2023 Expiry: 06/07/2028
19	Polykastron Pty Ltd.	256-262 Huntingdale Road, Huntingdale VIC 3166	Car service and parts provider	Odour	EPA Registration: A13c (Waste and resource recovery – small)	Issued: 08/10/2021 Expiry: 07/10/2026
20	FGB Natural Products	61/81 Clarinda Rd, Oakleigh South VIC 3167	Manufacturer and warehouse facility for flammable liquids, nutritional and pharmaceutical products	Odour	Industry listed in the Separation Distance Guideline	-
21	Hondworld Pty Ltd	40-44 Sarton Road, Clayton VIC 3168	Auto service and parts retailer	Odour	EPA Registration: A13c (Waste and resource recovery – small)	Issued: 29/09/2021 Expiry: 28/09/2026
22	EcoRecyclers Pty Ltd	60-72 Garden Road, Clayton VIC 3168	Recycler of construction and building materials	Dust	EPA Registration: A13c (Waste and resource recovery – small)	Issued: 06/12/2022 Expiry: 06/12/2027
		83-91 Garden Road, Clayton VIC 3168			EPA Registration: A13c (Waste and resource recovery – small)	Issued: 06/12/2022 Expiry: 06/12/2027

ID	BUSINESS / FACILITY NAME	ADDRESS	OPERATIONS	POTENTIAL AMENITY IMPACT	POTENTIAL TRIGGER FOR SEPARATION DISTANCE	DATES
23	Darley Firebrick (Refractories)	3 Edinburgh Street, Oakleigh South VIC 3167	Fire brick and refractory material manufacturer	Dust	Industry listed in the Separation Distance Guideline	-
24	JK Recycling Pty Ltd	358-362 Huntingdale Road, Oakleigh South VIC 3167	Scrap metal recycler	Odour	EPA Registration: A13c (Waste and resource recovery – small)	Issued: 19/02/2022 Expiry: 18/02/2027
					EPA Registration: A13c (Waste and resource recovery – small)	Issued: 15/06/2023 Expiry: 15/06/2028
25	Rezco Resins Pty Ltd	2 Price Street, Oakleigh South VIC 3167	Composites manufacturer	Dust	Industry listed in the Separation Distance Guideline	-
26	Techniques Incorporated Pty Ltd	31 Winterton Road, Clayton VIC 3168	Powdered food production	Odour	Industry listed in the Separation Distance Guideline	-
27	AGC Plastics Pty Ltd	38 Sarton Road, Clayton VIC 3168	Plastics manufacturer	Odour	Industry listed in the Separation Distance Guideline	-
28	Two Rupees Brewing	1/69 Renver Road, Clayton VIC 3168	Brewery	Odour	Industry listed in the Separation Distance Guideline	-
29	Davids All Metal Removals	28 Carinish Road, Oakleigh South VIC 3167	Scrap metal recycler	Odour	Industry listed in the Separation Distance Guideline	-
30	Monash University	Wellington Road, Clayton VIC 3168	University and research facilities	Odour	NPI-listed	NPI data date range: 01/01/2022 to 31/12/2022 Last updated: 28/03/2024
31	CSIRO	Bayview Avenue, Clayton VIC 3168	Scientific and industrial research facility	Odour	NPI-listed	NPI data date range: 01/07/2022 to 30/06/2023 Last updated: 28/03/2024
32	Macktow Pty Ltd	33-35 Franklyn Street, Huntingdale Victoria, 3166	Towing business	Odour	EPA Registration: A13c (Waste and resource recovery – small)	Issued: 21/12/2021 Expiry: 20/12/2026
33	Elite Castings	38 Hargreaves Street, Huntingdale VIC 3166	Metal sand and die casting	Odour	Industry listed in the Separation Distance Guideline	-

ID	BUSINESS / FACILITY NAME	ADDRESS	OPERATIONS	POTENTIAL AMENITY IMPACT	POTENTIAL TRIGGER FOR SEPARATION DISTANCE	DATES
34	A.F. Diecasters	32 Clifford Street, Huntingdale VIC 3166	Metal die casting	Odour	Industry listed in the Separation Distance Guideline	-
35	David Collins (Custom KBD)	32 Stafford Street, Huntingdale VIC 3166	Computer and computer accessories retailer	Odour	EPA Registration: A02c (Other waste treatment – e-waste 500 tonnes or less)	Issued: 01/02/2022 Expiry: 31/01/2027
36	Kaiju! Beer	27 Hume Street, Huntingdale VIC 3166	Brewery	Odour	Industry listed in the Separation Distance Guideline	-
37	Robert Bosch (Australia) Pty Ltd	1555-1615 Centre Road, Clayton VIC 3168	Large-scale manufacturer of tools and appliances.	Dust	PSR-listed: EAN-00002378	-
38	Sterling Global Property	1221-1249 Centre Road, Oakleigh South VIC 3167	Residential development on former quarry site	Dust	PSR-listed: EAN-00002879	-
39	Polyrok Australia Pty Limited	12-14 Westall Road, Springvale VIC 3171	Recycled plastic aggregate manufacturer	Odour	EPA Registration: A13c (Waste and resource recovery – small)	Issued: 31/10/2023 Expiry: 30/10/2028
40	Moderna mRNA production facility	133-141 Wellington Road, Clayton VIC 3168	Medical research and vaccine production facility	Odour	Industry listed in the Separation Distance Guideline	-

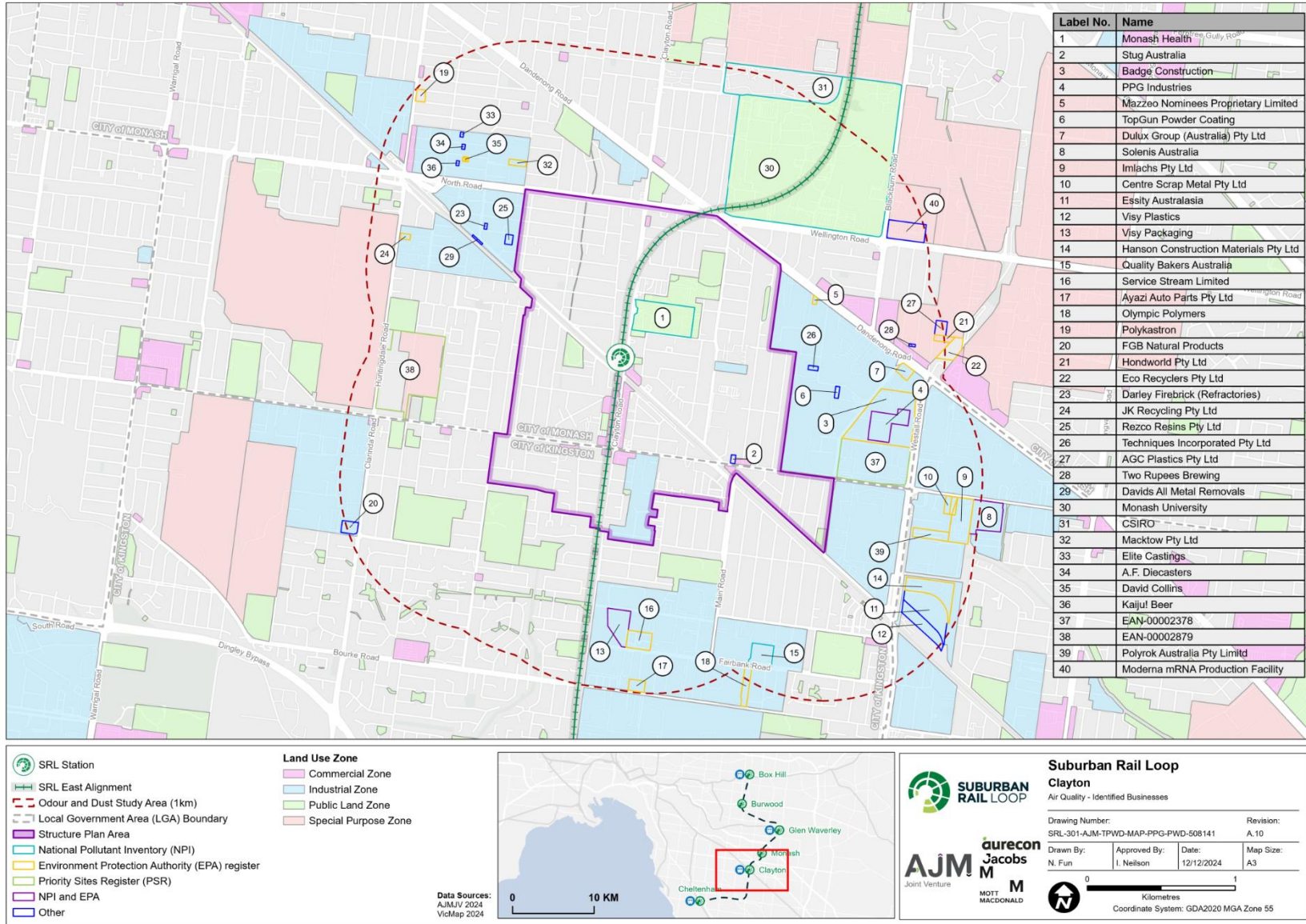


FIGURE 5.2 BUSINESSES / FACILITIES WITH POTENTIAL FOR ODOUR OR DUST IN CLAYTON STUDY AREA (ID NUMBER IN TABLE 5.2)

5.3 Monash Study Area

Table 5.3 lists the businesses and facilities in the Monash Study Area conducting activities with potential to emit odour or dust.

The name of the business or facility is identified, along with the address(es) where the activity is occurring, the type of activity, the type of potential amenity impact (dust or odour), and the potential trigger for a separation distance (EPA Victoria permission, NPI or PSR-listed).

If the business or facility is considered temporary (such as construction works), the entry is greyed out in Table 5.3, since it is unlikely to still exist when development in the Monash Structure Plan Area begins.

Figure 5.3 shows the locations of the businesses and facilities in the Monash Study Area.

TABLE 5.3 MONASH IDENTIFIED INDUSTRIES WITH POTENTIAL ODOUR OR DUST IMPACTS

ID	BUSINESS / FACILITY NAME	ADDRESS	OPERATIONS	POTENTIAL AMENITY IMPACT	POTENTIAL TRIGGER FOR SEPARATION DISTANCE	DATES
Within Structure Plan Area						
1	Monash Recycling and Waste Centre	380 Ferntree Gully Road, Notting Hill VIC 3168	Transfer station	Dust	EPA Registration: A13c (Waste and resource recovery – small)	Issued: 18/12/2021 Expiry: 17/12/2026
					EPA Registration: A09b (Waste tyre storage – small)	Issued: 18/12/2021 Expiry: 17/12/2026
2	Monash SES	380 Ferntree Gully Road, Notting Hill VIC 3168	Permanent wood chippings stockpile	Dust	Industry listed in the Separation Distance Guideline	-
3	Monash University	Wellington Road, Clayton VIC 3168	University and research facilities	Odour	NPI-listed	NPI data date range: 01/01/2022 to 31/12/2022 Last updated: 28/03/2024
4	CSIRO	Bayview Avenue, Clayton VIC 3168	Scientific and industrial research facility	Odour	NPI-listed	NPI data date range: 01/07/2022 to 30/06/2023 Last updated: 28/03/2024
5	Moderna mRNA production facility	133-141 Wellington Road, Clayton VIC 3168	Medical research and vaccine production facility	Odour	Industry listed in the Separation Distance Guideline	-
Within 1-kilometre radius of Structure Plan Area						
6	Leica Biosystems	495 Blackburn Road, Mount Waverley VIC 3149	Medical and surgical equipment manufacturing	Odour	NPI-listed	NPI data date range: 01/07/2022 to 30/06/2023 Last updated: 28/03/2024
7	AAI Limited	47 Gilby Road, Mount Waverley VIC 3149	Car insurance provider (accepting end-of-life vehicles)	Odour	EPA Registration: A13c (Waste and resource recovery – small)	Issued: 11/02/2022 Expiry: 10/02/2027

ID	BUSINESS / FACILITY NAME	ADDRESS	OPERATIONS	POTENTIAL AMENITY IMPACT	POTENTIAL TRIGGER FOR SEPARATION DISTANCE	DATES
8	Comdain Infrastructure Pty Ltd	34-40 Clayton Road, Clayton VIC 3168	Civil engineering organisation	Odour	EPA Registration: A22 (Temporary storage – asbestos)	Issued: 06/08/2021 Expiry: 06/06/2026
					EPA Registration: A13c (Waste and resource recovery – small)	Issued: 14/02/2022 Expiry: 13/02/2027
9	Print X One	Unit 9/28 Ricketts Road, Mount Waverley VIC 3149	Commercial Printing	Odour	Industry listed in the Separation Distance Guideline	-
10	Betta Grower	27 Lionel Road, Mount Waverley VIC 3149	Garden supplies and fertiliser production	Odour	Industry listed in the Separation Distance Guideline	-
11	Macktow Pty Ltd	33-35 Franklyn Street, Huntingdale Victoria, 3166	Towing business	Odour	EPA Registration: A13c (Waste and resource recovery – small)	Issued: 21/12/2021 Expiry: 20/12/2026
12	Badge Constructions (SA) Pty Ltd	14 McNaughton Road, Clayton VIC 3168	Construction	Dust	EPA Waste Designation: Waste code N122; Fill material; and Not priority waste.	Issued: 31/05/2023 Expiry: 31/05/2025
13	Robert Bosch (Australia) Pty Ltd	1555-1615 Centre Road, Clayton VIC 3168	Large-scale manufacturer of tools and appliances.	Dust	PSR-listed: EAN-00002378	-
14	Goodyear & Dunlop Tyres (Aust) Pty Ltd (Beaurepaires)	23-24 Rosemary Court, Mulgrave VIC 3170	Tyre and auto parts retailer	Odour	EPA Registration: A09b (Waste tyre storage – small)	Issued: 18/01/2022 Expiry: 18/01/2027
15	Satellite Tooling & Plastics	18 Geddes Street, Mulgrave VIC 3170	Plastic injection moulding service	Odour	Industry listed in the Separation Distance Guideline	-
16	JVS Tech Solutions Pty Ltd	2/12 Pickering Road, Mulgrave VIC 3170	Civil and technology engineering company	Dust	EPA Registration: A22 (Temporary storage – asbestos)	Issued: 30/07/2021 Expiry: 29/07/2026
					EPA Registration: A10a (Reportable priority waste transport – hazardous)	Issued: 23/04/2024 Expiry: 18/04/2029
17	Metal Care Recycler	31-35 McDonalds Ln, Mulgrave VIC 3170	Metal recycling facility	Odour	Industry listed in the Separation Distance Guideline	-
18	Hospira Australia Pty Ltd	1-39 Lexia Place, Mulgrave VIC 3170	Human pharmaceutical and medicinal product manufacturing	Odour	NPI-listed	NPI data date range: 01/07/2022 to 30/06/2023 Last updated: 28/03/2024
19	Century Yuasa Batteries Pty Ltd	42-46 Dunlop Road, Mulgrave VIC 3170	Battery recycling facility	Odour	EPA Registration: A13c (Waste and resource recovery – small)	Issued: 08/07/2021 Expiry: 07/07/2026
20	Australasian Food Group (Peters Ice Cream)	254-294 Wellington Road, Mulgrave VIC 3170	Ice Cream Manufacturing	Odour	NPI-listed	NPI data date range: 01/07/2022 to 30/06/2023 Last updated: 28/03/2024

ID	BUSINESS / FACILITY NAME	ADDRESS	OPERATIONS	POTENTIAL AMENITY IMPACT	POTENTIAL TRIGGER FOR SEPARATION DISTANCE	DATES
21	Hondworld Pty Ltd	40-44 Sarton Road, Clayton VIC 3168	Auto service and parts retailer	Odour	EPA Registration: A13c (Waste and resource recovery – small)	Issued: 29/09/2021 Expiry: 28/09/2026
22	EcoRecyclers Pty Ltd	60-72 Garden Road, Clayton VIC 3168	Recycler of construction and building materials	Dust	EPA Registration: A13c (Waste and resource recovery – small)	Issued: 06/12/2022 Expiry: 06/12/2027
		83-91 Garden Road, Clayton VIC 3168			EPA Registration: A13c (Waste and resource recovery – small)	Issued: 06/12/2022 Expiry: 06/12/2027
23	Fischer Plastic Products Pty Ltd	1/13 Kalimna Avenue, Mulgrave VIC 3170	Plastics manufacturer	Odour	Industry listed in the Separation Distance Guideline	-
24	Blowmech Plastics Pty Ltd	Factory 7/3 Faigh Street, Mulgrave VIC 3170	Plastic blow moulding	Odour	Industry listed in the Separation Distance Guideline	-
25	Boss Polymers	28 Miles Street, Mulgrave VIC 3170	Rubber and polymers manufacturer	Odour	Industry listed in the Separation Distance Guideline	-
26	Admil Adhesives	80/84 Peters Avenue, Mulgrave VIC 3170	Silicone, sealants and adhesives manufacturer	Odour	Industry listed in the Separation Distance Guideline	-
27	ALSCO	41-43 Miles Street, Mulgrave VIC 3170	Industrial laundry and mat cleaning	Odour	NPI-listed	NPI data date range: 01/07/2022 to 30/06/2023 Last updated: 28/03/2024
28	Maltra Foods	6 Sarton Road, Clayton VIC 3168	Food manufacturer	Odour	Industry possibly listed in the Separation Distance Guideline	
29	Australian Polyurethane Solutions	7/12-14 Miles Street, Mulgrave VIC 3170	Plastics manufacturer	Odour	Industry listed in the Separation Distance Guideline	
30	Inglewood Coffee Roasters	23 Lionel Rd, Mount Waverley VIC 3149	Coffee roastery	Odour	Industry listed in the Separation Distance Guideline	-
31	AGC Plastics Pty Ltd	38 Sarton Road, Clayton VIC 3168	Plastics manufacturer	Odour	Industry listed in the Separation Distance Guideline	-
32	Two Rupees Brewing	1/69 Renver Road, Clayton VIC 3168	Brewery	Odour	Industry listed in the Separation Distance Guideline	-
33	Dulux Group (Australia) Pty Ltd	1956 Dandenong Road, Clayton VIC 3168	Paint and coatings research facility	Odour	EPA Waste Designation: Not priority waste; Waste code Z500	Issued: 08/03/2023 Expiry: 01/03/2028
34	PPG Industries	14 McNaughton Road, Clayton VIC 3168	Manufacture of automotive, industrial, architectural and refinish coatings	Odour	EPA Licence: G01 (Chemical works) and G04 (Bulk storage)	Issued: 13/06/1980 Expiry: 31/12/9999
					NPI-listed	NPI data date range: 01/07/2022 to 30/06/2023 Last updated: 28/03/2024

ID	BUSINESS / FACILITY NAME	ADDRESS	OPERATIONS	POTENTIAL AMENITY IMPACT	POTENTIAL TRIGGER FOR SEPARATION DISTANCE	DATES
35	Techniques Incorporated Pty Ltd	31 Winterton Road, Clayton VIC 3168	Powdered food production	Odour	Industry listed in the Separation Distance Guideline	-
36	TopGun Powder Coating	49 Winterton Road, Clayton VIC 3168	Industrial and general powder coating	Odour	Industry listed in the Separation Distance Guideline	-
37	Mazzeo Nominees Proprietary Limited (B&A Motor Body Repairs)	1848 Princes Highway, Clayton, Melbourne, Victoria, 3168	Automotive repairs	Odour	EPA Registration: A13c (Waste and resource recovery – small)	Issued: 12/03/2022 Expiry: 11/03/2027
38	Monash Health	246 Clayton Road, Clayton VIC 3168	Hospital	Odour	NPI-listed	NPI data date range: 01/07/2022 to 30/06/2023 Last updated: 28/03/2024
39	Rezco Resins Pty Ltd	2 Price Street, Oakleigh South VIC 3167	Composites manufacturer	Odour	Industry listed in the Separation Distance Guideline	-
40	Scouts Victoria Recycling Pty Ltd	Unit 109/170 Forster Road, Mount Waverley VIC 3149	Container Deposit Scheme site	Odour	EPA Registration: A13c (Waste and resource recovery – small)	Issued: 27/11/2023 Expiry: 26/11/2028
41	Domestic Roofing Pty Ltd	5-6 Rosemary Court, Mulgrave VIC 3170	Roof works and materials supply	Dust	EPA Registration: A13c (Waste and resource recovery – small)	Issued: 15/08/2023 Expiry: 15/08/2028
42	Pazzi Marble & Granite	31 Geddes St, Mulgrave VIC 3170	Stone mason	Dust	Industry listed in the Separation Distance Guideline	

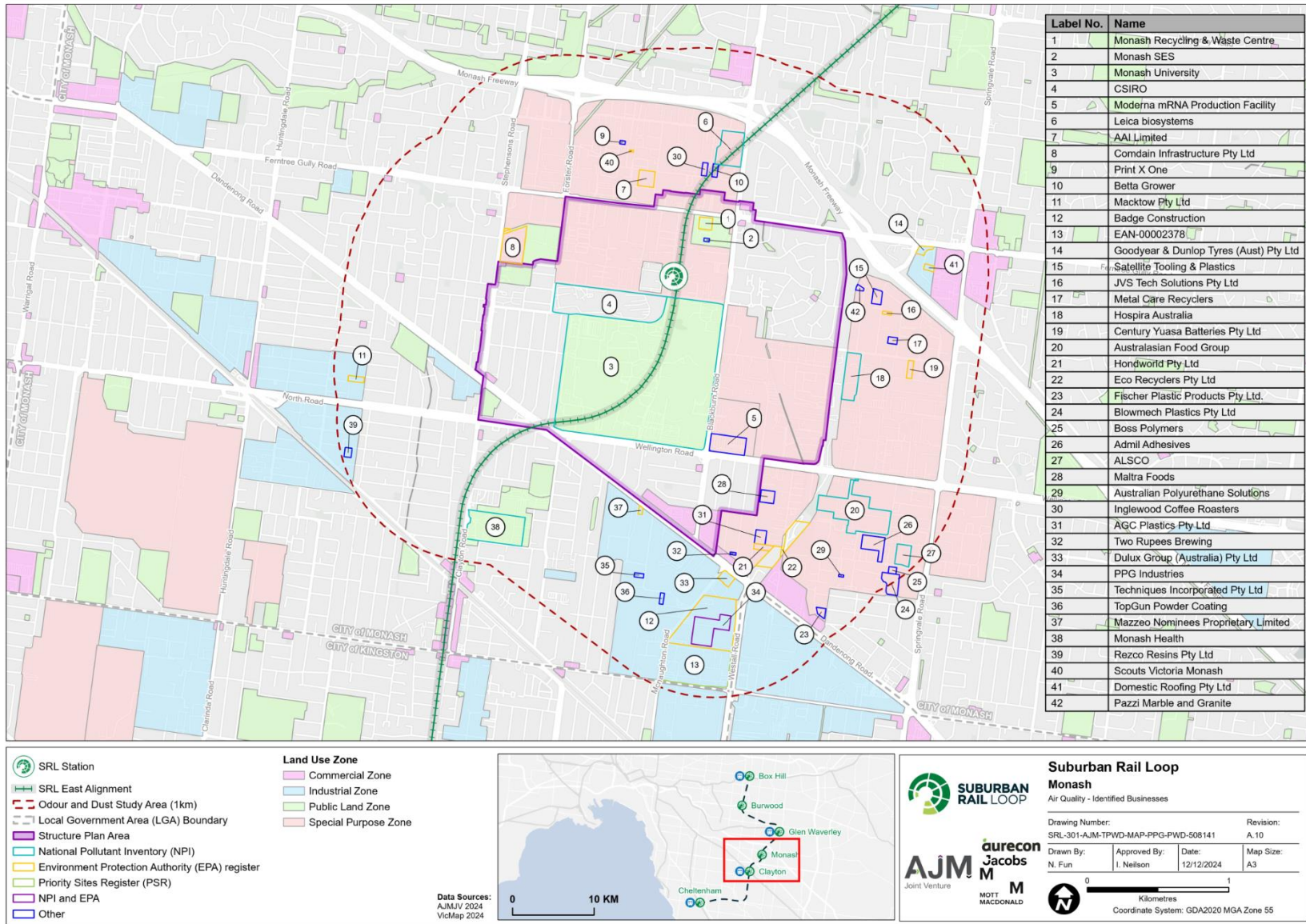


FIGURE 5.3 BUSINESSES / FACILITIES WITH POTENTIAL FOR ODOUR OR DUST IN MONASH STUDY AREA (ID NUMBER IN TABLE 5.3)

5.4 Glen Waverley Study Area

Table 5.4 lists the businesses and facilities in the Glen Waverley Study Area conducting activities with potential to emit odour or dust.

The name of the business or facility is identified, along with the address(es) where the activity is occurring, the type of activity, the type of potential amenity impact (dust or odour), and the potential trigger for a separation distance (EPA Victoria permission, NPI or PSR-listed).

Figure 5.4 shows the locations of the businesses and facilities.

There are multiple bakeries of similar size in the Glen Waverley Study Area, which have been condensed into a single entry in Table 5.4. They are not shown in Figure 5.4 to avoid creating unnecessary clutter on the map, because none of the bakeries are relevant to the consideration of separation distances later in this report.

TABLE 5.4 GLEN WAVERLEY IDENTIFIED INDUSTRIES WITH POTENTIAL ODOUR OR DUST IMPACTS

ID	BUSINESS / FACILITY NAME	ADDRESS	OPERATIONS	POTENTIAL AMENITY IMPACT	POTENTIAL TRIGGER FOR SEPARATION DISTANCE	DATES
Within Structure Plan Area						
1	Scouts Victoria Recycling Pty Ltd	Unit 2/12 Aristoc Rd, Glen Waverley VIC 3150	Container Deposit Scheme site	Odour	EPA Registration: A13c (Waste and resource recovery – small)	Issued: 27/11/2023 Expiry: 27/11/2028
2	Wilson Transformer Company Pty Ltd (EAN-00002468)	310-336 Springvale Road, Glen Waverley VIC 3150	Electrical equipment manufacturing	Odour	PSR-listed: EAN-00002468	-
-	Bakeries (multiple)	Multiple	Bakery	Odour	Industry listed in the Separation Distance Guideline	-
Within 1-kilometre radius of Structure Plan Area						
3	Super Cheap Auto Pty Ltd	643-645 High Street Road, Glen Waverley VIC 3150	Auto parts and services retailer	Odour	EPA Registration: A23 (Temporary storage – designated waste)	Issued: 09/10/2021 Expiry: 08/10/2026

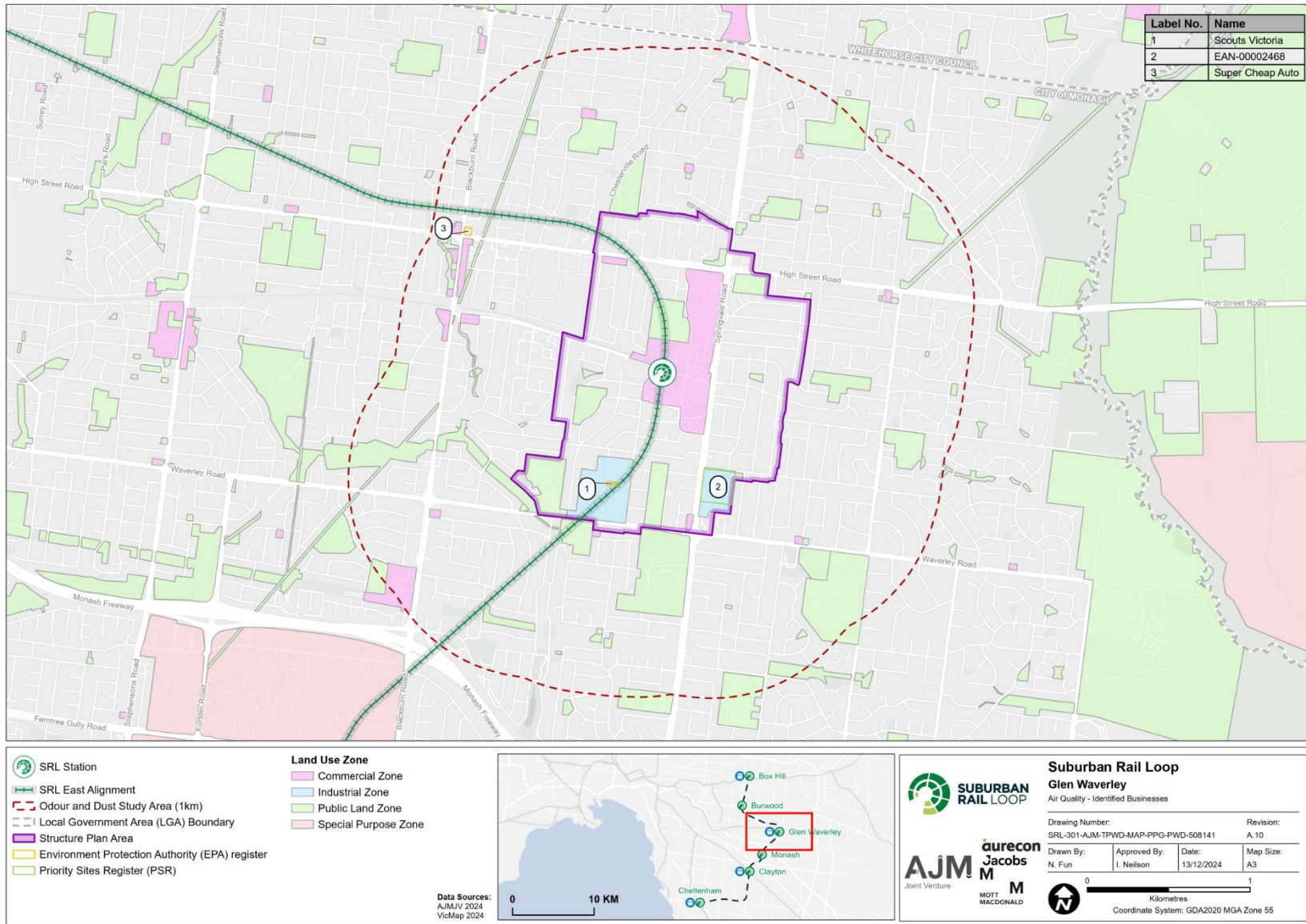


FIGURE 5.4 BUSINESSES / FACILITIES WITH POTENTIAL FOR ODOUR OR DUST IN GLEN WAVERLEY STUDY AREA (ID NUMBER IN TABLE 5.4)

5.5 Burwood Study Area

Table 5.5 lists the businesses and facilities in the Burwood Study Area conducting activities with potential to emit odour or dust.

The name of the business or facility is identified, along with the address(es) where the activity is occurring, the type of activity, the type of potential amenity impact (dust or odour), and the potential trigger for a separation distance (EPA Victoria permission, NPI or PSR-listed).

If the activity is considered temporary (such as construction works), the entry is greyed out in Table 5.5, since it is unlikely to exist when development in the Burwood Structure Plan Area starts.

Figure 5.5 shows the locations of the businesses and facilities in the Burwood Study Area.

Three former landfills listed on the Victorian Landfill Register (VLR) were identified:

- Landfill register number 10485 at 78 Middleborough Road, Burwood East VIC 3151 – this site is listed as accepting ‘Solid inert waste, Inert industrial waste, broken bricks and discarded tiles’, and is estimated to have closed in 1998. The site is currently the location of Burwood Brickworks, a commercial and residential precinct developed in the last 8 years.
- Landfill register number 11180 at 465 Highbury Road, Burwood East VIC 3151 – the VLR does not contain records of this landfill’s waste information and closing date, but the site is now Ballyshannassy Reserve – a public greenspace with a playground, sporting facilities and a dog off-lead area.
- Landfill register number 11192 at 175 Burwood Highway, Burwood VIC 3125 – the VLR does not contain records of this landfill’s waste information and closing date, but the site is now Bennettswood Reserve, located adjacent to Deakin University and containing sporting grounds and indoor facilities.

None of these sites are anticipated to be odour or dust risks, given their rehabilitation status.

There are multiple bakeries of similar size in the Study Area, which have been condensed into a single entry in Table 5.5. They are not shown in Figure 5.5 to avoid creating unnecessary clutter on the map, because as discussed in Section 2.4 none of the bakeries are relevant to the consideration of separation distances later in this report.

TABLE 5.5 BURWOOD IDENTIFIED INDUSTRIES WITH POTENTIAL ODOUR OR DUST IMPACTS

ID	BUSINESS / FACILITY NAME	ADDRESS	OPERATIONS	POTENTIAL AMENITY IMPACT	POTENTIAL TRIGGER FOR SEPARATION DISTANCE	DATE
Within Structure Plan Area						
1	ADCO Group Pty Ltd.	141-155 Burwood Highway Burwood, VIC 3125	Construction works	Dust	EPA Waste Designation: classification Waste code N122; Fill material; and Not priority waste.	Issued: 07/03/2023 Expiry: 31/05/2026
2	Apecs Investment Castings Pty Ltd.	17 Harker Street, Burwood VIC 3125	Casting of gold alloys, platinum, silver, brass and bronze for the jewellery industry	Odour	Industry listed in the Separation Distance Guideline	-

ID	BUSINESS / FACILITY NAME	ADDRESS	OPERATIONS	POTENTIAL AMENITY IMPACT	POTENTIAL TRIGGER FOR SEPARATION DISTANCE	DATE
3	EcoActiv Pty Ltd.	26 Harker Street, Burwood VIC 3125	Collection, disposal and transport of waste including e-waste and batteries	Odour	Industry listed in the Separation Distance Guideline	-
4	Ritter Australia Pty Ltd	116 Highbury Road, Burwood VIC 3125	Auto parts retailer and car service provider	Odour	EPA Registration: A09b (Waste tyre storage – small)	Issued: 20/09/2021 Expiry: 20/09/2026
					EPA Registration: A13c (Waste and resource recovery – small)	Issued: 13/01/2022 Expiry: 12/01/2027
Within 1-kilometre radius of Structure Plan Area						
5	Australand Burwood Residential No. 2 Pty Ltd.	78 Middleborough Road, Burwood East VIC 3151	Use of recycled water in association with development of residential properties	Odour	EPA Permit: A14 (Wastewater supply or use)	Issued: 31/08/2021 Expiry: 30/08/2026
6	Sorbent Paper Company Pty Ltd (This business is also within the Box Hill Study Area)	19 Ailsa Street, Box Hill South VIC 3128	Manufacturer of paper tissue products	Odour	NPI-listed	NPI data date range: 01/07/2022 to 30/06/2023 Last updated: 28/03/2024
					EPA Licence: F03 (Paper pulp mills)	Issued: 23/05/1975 Expiry: 31/12/9999
-	Bakeries (multiple)	Multiple	Bakery	Odour	Industry listed in the Separation Distance Guideline	-

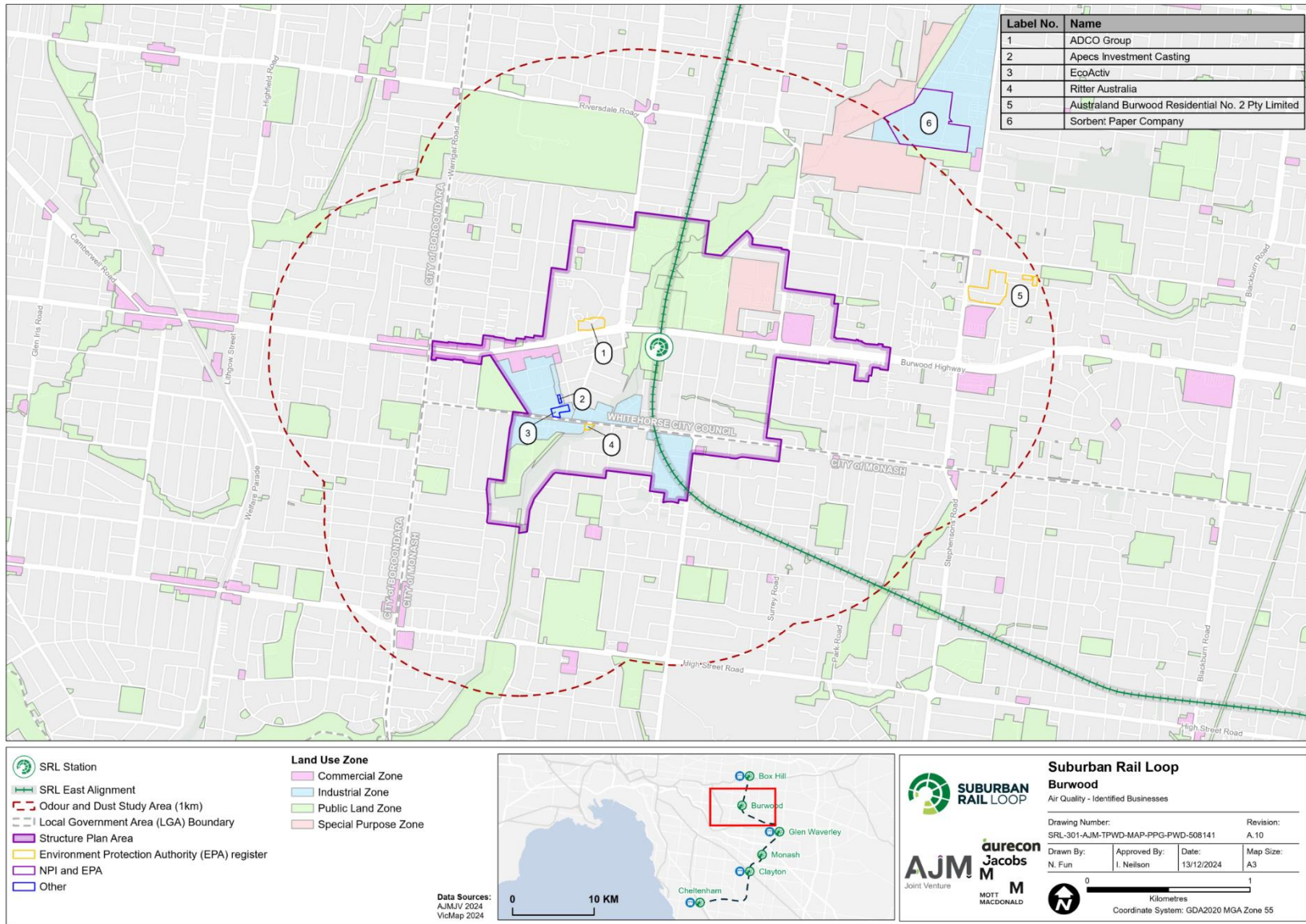


FIGURE 5.5 BUSINESSES / FACILITIES WITH POTENTIAL FOR ODOUR OR DUST IN BURWOOD STUDY AREA (ID NUMBERS LISTED IN TABLE 5.5)

5.6 Box Hill Study Area

Table 5.6 lists the businesses and facilities in the Box Hill Study Area conducting activities with potential to emit odour or dust.

The name of the business or facility is identified, along with the address(es) where the activity is occurring, the type of activity, the type of potential amenity impact (dust or odour), and the potential trigger for a separation distance (EPA Victoria permission, NPI or PSR-listed).

If the business or facility is considered temporary (such as construction works), the entry is greyed out in Table 5.6, since it is unlikely to still exist when development in the Box Hill Structure Plan Area starts.

Figure 5.6 shows the locations of the businesses and facilities.

There are multiple bakeries of similar size in the Box Hill Study Area, and these are condensed into a single entry in Table 5.6. They are not shown in Figure 5.6 to avoid creating unnecessary clutter on the map, because as discussed in Section 2.4 none of the bakeries are relevant to the consideration of separation distances later in this report.

The site at 14 Federation Street, Box Hill is listed on the PSR as ‘Former landfill, requires ongoing management’. Laing O’Rourke currently holds an EPA Victoria permit to store category D waste soil on this site as part of construction works for the Surrey Hills and Mont Albert Level Cross Removal Project. Category D covers the least hazardous soils as defined in EPA Victoria Publication 1828, with contaminant concentrations that are:

- Greater than the upper limit for fill material on Table 3 of EPA Victoria Publication 1828
- Below the upper limit for Category D on Table 2 of EPA Victoria Publication 1828.

As explained in Section 4.7, potential development constraints related to the closed landfill at 14 Federation Street, Box Hill are outside the scope of this report and instead are addressed in the *SRL East Structure Plan – Contaminated Land Technical Report (AJM-JV 2025)*.

TABLE 5.6 BOX HILL IDENTIFIED INDUSTRIES WITH POTENTIAL ODOUR OR DUST IMPACTS

ID	BUSINESS / FACILITY NAME	ADDRESS	OPERATIONS	POTENTIAL AMENITY IMPACT	POTENTIAL TRIGGER FOR SEPARATION DISTANCE	DATES
Within Structure Plan Area						
1	Box Hill Hospital	8 Arnold Street, Box Hill VIC 3128	Health Care Facility	Odour	NPI-listed	NPI data date range: 01/07/2022 to 30/06/2023 Last updated: 28/03/2024
2	Bob Jane Corporation Pty Ltd	889-891 Whitehorse Road, Box Hill VIC 3128	Tyre, wheel and car battery retailer	Odour	EPA Registration: A09b (Waste tyre storage – small)	Issued: 25/01/2023 Expiry: 25/01/2028
3	Laing O’Rourke Australia Construction Pty	354 Elgar Road, Box Hill VIC 3128	Construction works	Dust, Odour	EPA Permit: A17 (Containment of category D soil)	Issued: 09/09/2022 Expiry: 07/09/2027

ID	BUSINESS / FACILITY NAME	ADDRESS	OPERATIONS	POTENTIAL AMENITY IMPACT	POTENTIAL TRIGGER FOR SEPARATION DISTANCE	DATES
	Ltd (Level Cross Removal Project (LXRP))	351 Elgar Road, Surrey Hills VIC 3127	Construction waste (fill) production	Dust, Odour	EPA Registration: A13c (Waste and resource recovery – small)	Issued: 20/09/2022 Expiry: 19/09/2027
		14 Federation Street, Box Hill VIC 3128	Construction works on former landfill site	Dust, Odour	EPA Permit: A17 (Containment of category D soil)	Issued: 09/09/2022 Expiry: 07/09/2027
					PSR entry: SMO-00004303	-
-	Bakeries (multiple)	Multiple	Bakery	Odour	Industry listed in the Separation Distance Guideline	-
Within 1-kilometre radius of Structure Plan Area						
4	Sorbent Paper Company Pty Ltd (This business is also in the Burwood Study Area)	19 Ailsa Street, Box Hill South VIC 3128	Manufacturer of paper tissue products	Odour	NPI-listed	NPI data date range: 01/07/2022 to 30/06/2023 Last updated: 28/03/2024
					EPA Licence: F03 (Paper pulp mills)	Issued: 23/05/1975 Expiry: 31/12/9999
5	Laing O'Rourke Australia Construction Pty Ltd (LXRP)	11 Windsor Crescent, Mont Albert VIC 3127	Construction works	Dust, Odour	EPA Permit: A17 (Containment of category D soil)	Issued: 09/09/2022 Expiry: 07/09/2022
		127 Union Road, Surrey Hills VIC 3127	Construction works	Dust, Odour	EPA Permit: A17 (Containment of category D soil)	Issued: 09/09/2022 Expiry: 07/09/2022
6	Princes Laundry Services Pty Ltd	83 Lexton Road, Box Hill North VIC 3129	Laundering of hospital, healthcare and hospitality linen by washing, drying and ironing	Odour	NPI-listed	NPI data date range: 01/07/2022 to 30/06/2023 Last updated: 28/03/2024
7	Mardrew Pty Ltd (operating as Box Hill Towing)	64-64a Lexton Road, Box Hill North VIC 3129	Towing services	Dust, Odour	EPA Registration: A13c (Waste and resource recovery – small)	Issued: 22/12/2021 Expiry: 21/12/2026
8	Non Toxic Paint	1/25 Lexton Road, Box Hill North VIC 3129	Paint production	Odour	Industry listed in the Separation Distance Guideline	-
9	Acron Plastics Pty Ltd	305-307 Middleborough Road, Box Hill VIC 3128	Plastic packaging, moulding and thermoforming production	Odour	Industry listed in the Separation Distance Guideline	-

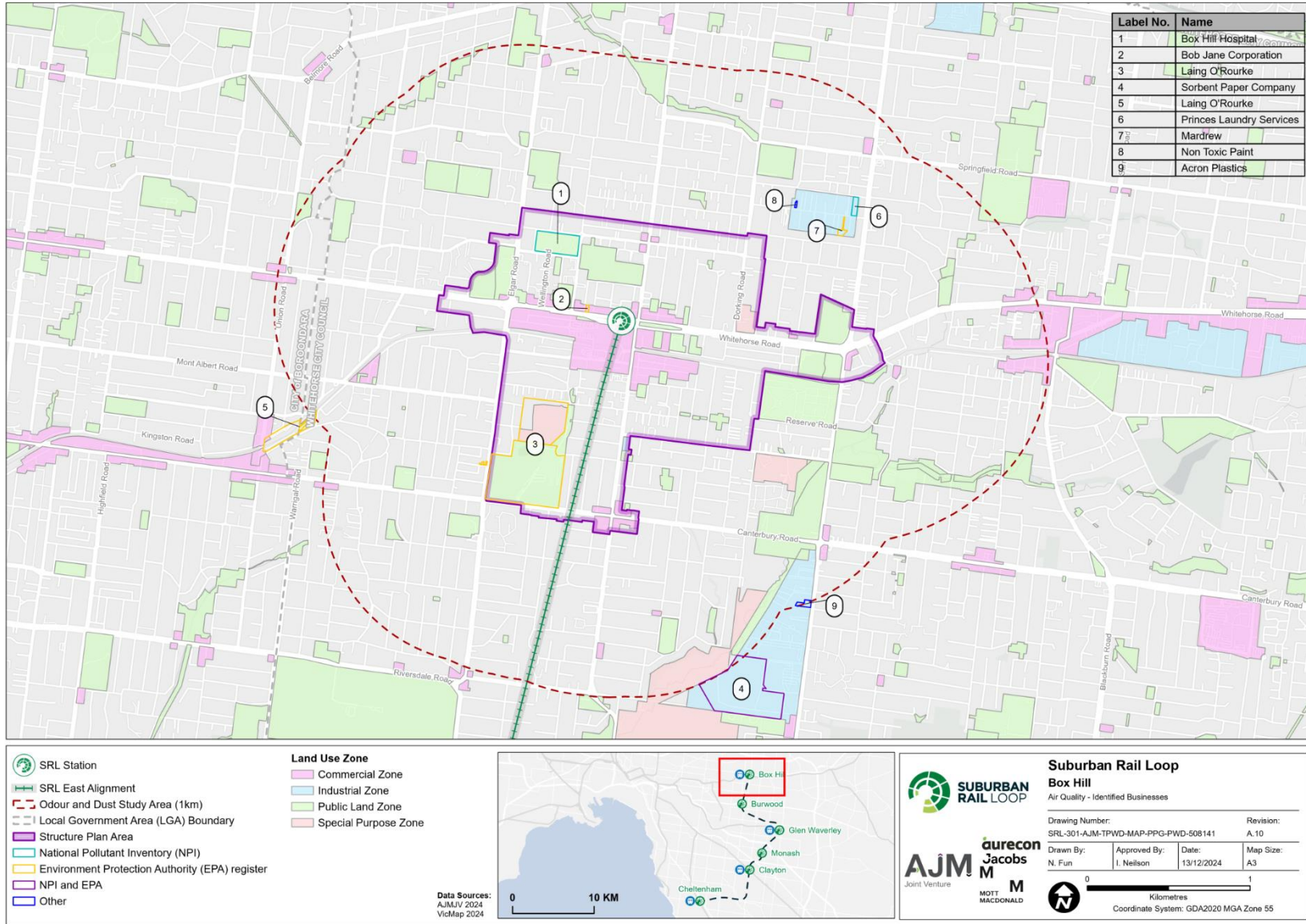


FIGURE 5.6 BUSINESSES / FACILITIES WITH POTENTIAL FOR ODOUR OR DUST IN BOX HILL STUDY AREA (ID NUMBERS LISTED IN TABLE 5.6)

6 Findings

This section assesses where a default separation distance is applicable for the businesses and facilities identified in Section 5 as defined in the Separation Distance Guideline.

Further investigation in the form of stakeholder engagement, and in some cases the address was viewed from the public road or attended in a site visit where there was uncertainty about the amount or type of production of a business or facility.

6.1 Cheltenham Structure Plan Area

Within Structure Plan Area:

- Ecolab – this business blends chemicals for commercial cleaning industries without the use of volatile odorous chemicals. In communications between this business and SRLA, Ecolab confirmed a chemical production throughput of approximately 100 tonnes per day, which exceeds the 5000 tonnes per year production threshold for a separation distance in the category of ‘chemical blending where the operations are unlikely to cause discharge to the environment’. The default separation distance for this category is 300 metres. A site visit was conducted on 12 November 2024, to investigate the potential for odour emissions from the site. Following the site visit, the odour emission risk was assessed as very minor. An odour risk assessment was conducted which concluded that a 65-metre separation distance to residential land uses is appropriate (which maintains the existing separation distance). The results of this assessment are detailed in Appendix A. Recommendations for this site are provided in Section 7.1.
- Laminex Group – this business has an EPA Victoria licence for chemical works, relating to their production of high-pressure laminate, compact laminate and wet-area panelling. There is no clear category in the Separation Distance Guideline that would apply to this business, and the activity would be most similar to ‘manufacture of products using fibreglass or resin’ which has an associated production rate-dependent separation distance for odour risks. The production threshold is 250 tonnes per year – in communications with SRLA from 2 May 2024, this business confirmed it exceeds this threshold. The default separation distance for industries exceeding this threshold is 500 metres.

However, the business confirmed in subsequent communications with SRLA (from July 2024, see Section 2.5) that the only activity conducted on-site which required odour controls or mitigation measures is paper treatment, and that its paper treatment facility was shut down 5 years ago. The business states there are no longer activities on-site which are potential odour risks. In accordance with the Separation Distance Guideline (see Figure 4.1), businesses that do not pose an odour or dust risk require no further assessment. It was therefore concluded for this site that no separation distance is applicable.

- Bad Shepherd Brewing Co – this business falls under the ‘Alcoholic Beverage Manufacturing’ category in the Separation Distance Guideline, for which separation distances of 250 metres or 500 metres may be applicable. This business would be required to hold a permission from EPA Victoria under category D09 (Beverage manufacturing) in Schedule 1 of the Environment Protection Regulations if the production capacity exceeded 300 kilolitres per year of beverages. Both potential separation distances are only applicable if the business’ production capacity exceeded 2000 litres per day. Since this business does not hold a permission, and so does not produce more than ~820 litres per day, the production threshold for the separation distance is not being exceeded, so no separation distance is applicable.
- Ideal Drum Co – this business has a licence for storing drums of reportable priority waste, which qualifies it as a ‘Priority industrial waste treatment facility’ under the Separation Distance Guideline. This means a 500-metre separation distance applies to this business, and this separation distance may be applicable. The odour risk profile from this business will depend on specific activities conducted on the site, and the

potential for emissions of odorous pollutants into the air under normal operations. The risks of odour from this business may be able to be reduced through engagement with the business and further understanding of this risk profile during development of the SRL Cheltenham neighbourhood. Recommendations for this site are provided in Section 7.1.

- 23 degrees coffee – this business qualifies under the ‘Coffee roasting’ category of the Separation Distance Guideline which has a 200 tonnes per year production threshold. The business is located in a small building with floor dimensions of approximately 10 metres x 20 metres. The business would need to roast approximately 833 kilograms of coffee beans on average per day (assuming 5 days per week operation, 48 weeks per year) to meet the production threshold to require a separation distance. Staff at Ecolab, which is 200 m north-north-west of 23 degrees coffee, advised that they had never smelled roasting coffee at the Ecolab site. It is considered unlikely the business exceeds the production threshold at this premises, so no separation distance is applicable.
- Innovag Pty Ltd – this business manufactures digital agriculture devices, so may generate e-waste on site. Using the approach defined in Section 2.4 for businesses storing or processing e-waste, no separation distance is applicable.
- InteriorCo Vic – this business holds a registration to receive, store or process ‘industrial wastewaters (excluding sewage) which meets conditions relating to wastewater reuse in a permission’. However, the handling of such wastes is assumed to be a small part of the site’s operations, given the business is described as a ‘Manufacturer and wholesaler of office furniture providing installation, fitouts, mechanical and maintenance services’. The business potentially would classify for a separation distance under the ‘liquid waste facility’ category in the Separation Distance Guideline, which has a default 500-metre separation distance if the site capacity for liquid wastes exceeds 1000 m³. While the site holds a registration under category A13c of the Environment Protection Regulations (for liquid wastes in the capacity range of 5 to 5000 m³), the main purpose of the business is the manufacture and wholesale of office furniture, and the business is located close to two early childhood centres. In addition, the registration specifies the wastewater cannot include sewage, and must be of a quality suitable for wastewater reuse. For these reasons, the risk of odour emissions from this activity are considered to be low, and no separation distance is applicable.
- Future Recycling – this business is a waste and recycling centre which holds a registration to receive, store and process e-waste and waste tyres (amongst other kinds of waste). This site could be classified as either a transfer station or a materials recovery and recycling facility in line with the activity descriptions in the Separation Distance Guideline, and in either definition a default 250-metre separation distance is applicable for dust risks for this site. There are already land uses that are sensitive to dust downwind of the business under the prevailing northerly wind – a childcare centre 100 metres from the Future Recycling boundary and the Sandringham Family Leisure Centre and Basketball Stadium 200 metres away. A dust risk assessment (see Appendix B) conducted for the Future Recycling site concluded this business has a medium dust risk. Recommendations for this site are provided in Section 7.1.
- Alligator Glass – this business cuts and treats glass, but does not appear to manufacture glass or glass products. No separation distance is applicable.
- Columbia Australia Pty Ltd – this business is a plastic injection moulding facility. There is a category in the Separation Distance Guideline for ‘Plastics manufacture or recycling’, for which a default 200-metre separation distance is applicable. This business would be required to hold a permission from EPA Victoria under category G01 (Chemical Works) in Schedule 1 of the Environment Protection Regulations if the production capacity exceeded 2000 tonnes per year of chemical products. The default separation distance is only applicable if the business’ production capacity exceeded 2000 tonnes per year of plastics. Since this business does not hold a permission, it follows that the production threshold for the separation distance is not being exceeded, so no separation distance is applicable.

- Inspired Waste Solutions – this business treats waste including industrial oils, chemical plant waste and biomedical materials on-site with base-catalysed dechlorination. This waste definition contain leachates or contaminants so is classed as priority industrial waste, which means this facility has a default 500-metre separation distance as a ‘Priority industrial waste treatment facility’ under the Separation Distance Guideline. However, a visit to the location confirmed that the premises exists of a small office in an office complex, and there are no industrial activities carried out at the location. The odour risk is considered negligible.
- My Pet Treats – this business manufactures pet food, but is unlikely to exceed the 200 tonnes per year production threshold in the ‘Pet food’ category of the Separation Distance Guideline because it does not hold an EPA Victoria permission under category D05 of Schedule 1 of the Environment Protection Regulations for pet food processing, which has the same production threshold. No separation distance is applicable.
- Bakeries (multiple) – All the bakeries identified in the Cheltenham neighbourhood are small-scale businesses operating in commercial or retail areas (rather than industrial-sized facilities). Using the approach defined in Section 2.4 for bakeries, no separation distance is applicable.

Within 1-kilometre radius of Structure Plan Area:

- Reliance Worldwide Corporation – this business holds a permit to transport reportable priority waste out of Victoria. This permit is specific to transport and does not include storage, treatment, reprocessing or disposal (on-site). The ‘Priority Industrial Waste Treatment facility’ category in the Separation Distance Guideline does not therefore apply to this site (and neither does any other category in this guideline). This site also does not appear to have any dust sources such as unsealed roads or extensive outdoor storage. No separation distance is applicable.
- Amcor Flexibles – this business holds a printing licence, which is required when the business emits more than 100 kilograms per day of volatile organic compounds in its printing operations. This threshold is the same as the one under the ‘Printing’ category in the Separation Distance Guideline. The emissions-dependent separation distance of 500 metres under this category therefore applies to this business, but does not encroach into the Structure Plan Area.
- Coca-Cola Amatil – this business is listed on the NPI as a producer of soft-drinks, cordials and syrups. None of these beverages have applicable separation distances in the Separation Distance Guideline. No separation distance is applicable.
- Medical Waste Away – this business holds a registration to temporarily store biomedical waste, which includes clinical and pharmaceutical waste. A road-side inspection of this site found no evidence the business is operating at the address listed on the registration. The building at the address appears to house Elite Shop Fitters, a business providing commercial and domestic fitout services, which also has the registered address listed on its website. No separation distance is applicable.
- Carbon Autoworks – this business includes vehicle maintenance and recycling, and holds a registration to accept waste comprising of ‘end-of-life vehicles’. Using the approach defined in Section 2.4 for businesses engaging in vehicle repairs or wrecking, no separation distance is applicable.
- Waddell Engineering Pty Ltd – this business is a plastic and metal machining facility. From the company’s website and a view of the business from the street, it does not appear to produce plastics from raw materials by chemical processes. The business could qualify under the ‘Plastics manufacture or recycling’ category in the Separation Distance Guideline, for which the activity is defined as ‘conversion of raw plastic materials into finished products’. This category has a production-dependent separation distance of 2000 tonnes per year, for which a 200-metre separation distance would apply. It is not known if this facility would

exceed that production threshold. However, the main purpose of this business is the machining of plastic and metals, which has a low odour emission risk. The separation distance category is not considered to be appropriate for this business, but even if it was, the 200-metre distance would not overlap with the boundary of the Structure Plan Area. No separation distance is applicable.

- Greatorex Textile Industries Pty Ltd – this business manufactures medical grade bandages, soft orthotics and meat netting, some of which uses artificial fibres. The default 500-metre separation distance in the Separation Distance Guideline for the category of ‘Production of artificial fibres and textiles’ therefore applies to this business. The distance does not encroach into the Structure Plan Area.
- West End Henley Motors – this business holds a registration to receive, store and process e-waste and metals. Aerial photographs of this site as well as drive-by street reconnaissance show little outdoor area at the site and no large scale wrecking, crushing or shredding activities. Using the approach defined in Section 2.4 for businesses engaging in metals recycling and businesses storing or processing e-waste, no separation distance is applicable.

The default separation distances for these industries overlap in some locations, raising the potential for cumulative impacts. The industries have different odour characteristics that would be readily distinguishable at sensitive receptors, and therefore any cumulative impact would likely not extend the required separation distance from each industry. However, it would likely increase the frequency of potential odour impact, of any type, in the overlapping areas, meaning that these locations are even less suitable for sensitive uses. The overlapping areas do not extend into the Structure Plan Area, and consequently consideration of the risk of cumulative impacts is not material.

Table 6.1 summarises the default separation distances in the Study Area. Figure 6.1 shows the location and extent of any default separation distances in the Study Area.

There are three businesses or facilities with default separation distances that encroach into the Cheltenham Structure Plan Area. These are: Ideal Drum Co, Ecolab and Future Recycling. These separation distances may impact development and sensitive land uses in the Structure Plan Area. Recommendations are discussed in Section 7.1.

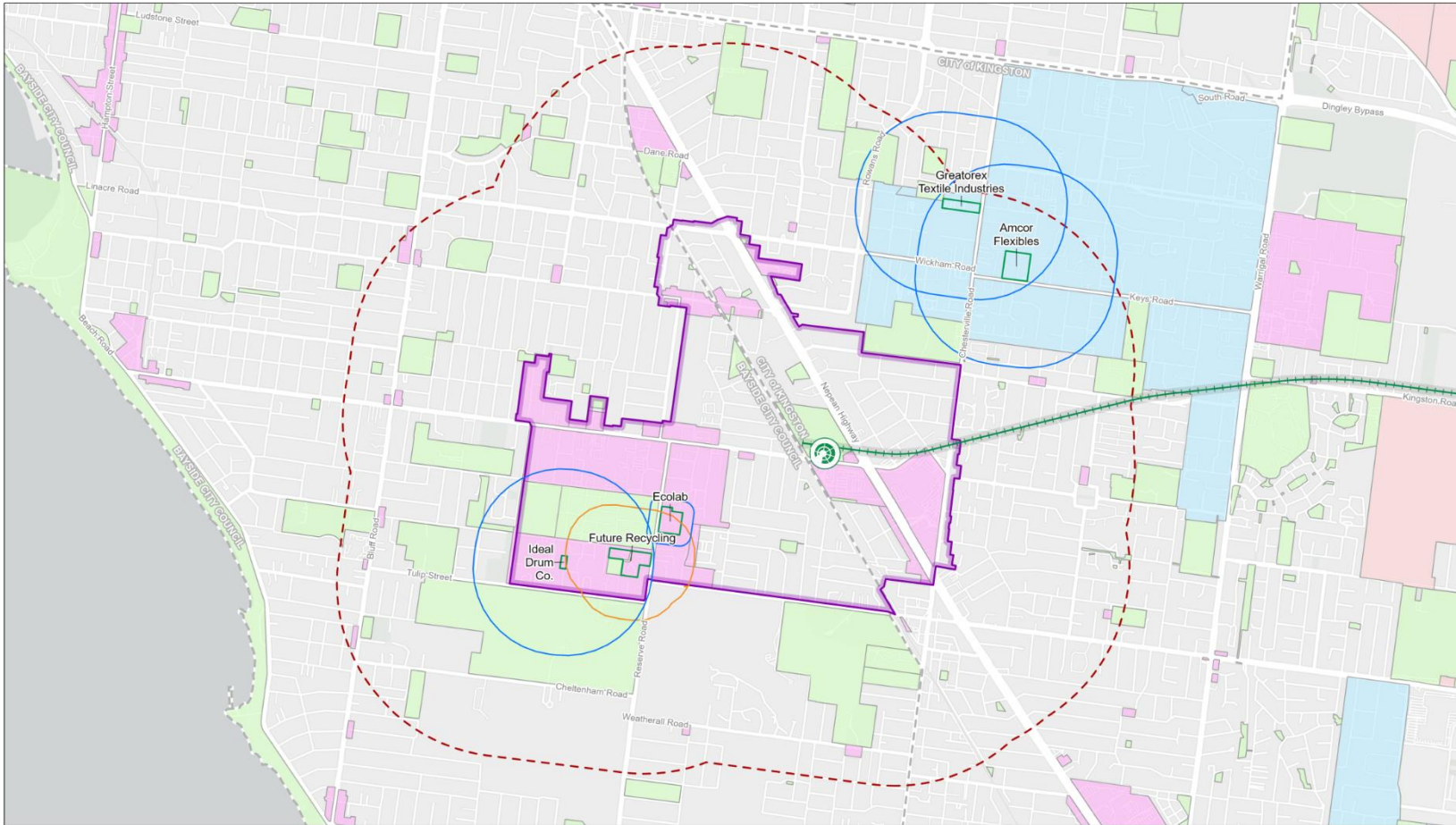
The default separation distances for these industries overlap in some locations, raising the potential for cumulative impacts. The industries have different odour characteristics that would be readily distinguishable at sensitive receptors, and therefore any cumulative impact would likely not extend the required separation distance from each industry. However, it would likely increase the frequency of potential odour impact, of any type, in the overlapping areas, meaning that these locations are even less suitable for sensitive uses. The overlapping areas do not extend into the Structure Plan Area, and consequently consideration of the risk of cumulative impacts is not material.

TABLE 6.1 SEPARATION DISTANCES FOR ODOUR AND DUST – CHELTENHAM

BUSINESS / FACILITY NAME	OPERATIONS	IS A DEFAULT SEPARATION DISTANCE APPLICABLE FROM THE SEPARATION DISTANCE GUIDELINE?	SUMMARY OF ASSESSMENT
Within Structure Plan Area			
Ecolab	Chemical blending	Yes – 300 m	The default separation distance is not required for this industry, but a separation distance of 65 m is recommended to residential land uses (which maintains the existing separation distance to sensitive receivers). See site-specific odour risk assessment in Appendix A.

BUSINESS / FACILITY NAME	OPERATIONS	IS A DEFAULT SEPARATION DISTANCE APPLICABLE FROM THE SEPARATION DISTANCE GUIDELINE?	SUMMARY OF ASSESSMENT
Laminex Group	Manufacturer of compact boards and high pressure laminates.	No	No separation distance applicable
Bad Shepherd Brewing Co.	Microbrewery and bar / restaurant	No	Unlikely to exceed the prescribed activity threshold so would not trigger the separation distance requirement.
Ideal Drum Co.	Steel drum storage and supply	Yes – 500 m	A default separation distance of 500 m for odour is applicable.
Innovag Pty Ltd	Electronic device manufacturer	No	No separation distance is applicable
InteriorCo Vic	Manufacturer and wholesaler of office furniture providing installation, fitouts, mechanical and maintenance services	No	Unlikely to exceed the prescribed activity threshold so would not trigger the separation distance requirement.
Future recycling	Waste & recycling centre	Yes – 250 m	A default separation distance of 250 m for dust applies. See site-specific dust risk assessment in Appendix B.
Alligator Glass	Glaziers cutting, sandblasting and installing glass features	No	No separation distance is applicable
Columbia Australia Pty Ltd	Manufacturer of precision plastic injection moulded parts and metal components	No	Since this business does not hold a permission it is unlikely to require a separation distance.
Inspired Waste Solutions	Office for waste collection and recycling services	No	Only office activities are carried out at this location so no separation distance is required.
My Pet Treats	Pet food manufacturer	No	Since this business does not hold a permission it is unlikely to require a separation distance.
23 degrees coffee	Coffee Roastery	No	Unlikely to exceed the prescribed activity threshold so would not trigger the separation distance requirement.
Bakeries (multiple)	Bakery	No	Each of the individual businesses are considered unlikely to exceed the prescribed 200 tonnes per year threshold so would not trigger the 100-m separation distance requirement
Within 1-kilometre radius of Structure Plan Area			
Reliance Worldwide Corporation	Plumbing and heating services, waste transport	No	No separation distance is applicable
Amcors Flexibles	Printing flexible packaging	Yes – 500 m	A default 500-m separation distance for odour is applicable
Coca-Cola Amatil	Beverage manufacturing	No	No separation distance is applicable
Medical Waste Away	Biomedical waste storage	No	Business did not appear to be operating at the stated address.
Carbon Autoworks	Vehicle maintenance and parts and recycling	No	No separation distance is applicable
Waddell Engineering Pty Ltd	Precision plastic & metal machining services	No	Since this business does not hold a permission it is unlikely to require a separation distance.

BUSINESS / FACILITY NAME	OPERATIONS	IS A DEFAULT SEPARATION DISTANCE APPLICABLE FROM THE SEPARATION DISTANCE GUIDELINE?	SUMMARY OF ASSESSMENT
Greatorex Textile Industries Pty Ltd	Manufacturer of medical grade bandages, soft orthotics and meat netting	Yes – 500 m	A default 500-m separation distance for odour is applicable
West End Henley Motors	Metals and e-waste disposal	No	No separation distance is applicable



SRL Station SRL East Alignment Odour and Dust Study Area (1km) Local Government Area (LGA) Boundary Structure Plan Area Identified Business Separation Distance Recommended for Dust Separation Distance Recommended for Odour Separation Distance May Apply (Odour)	Land Use Zone Commercial Zone Industrial Zone Public Land Zone Special Purpose Zone		<p>Suburban Rail Loop Cheltenham Air Quality - Separation Distance</p> <table border="0"> <tr> <td>Drawing Number: SRL-301-AJM-TPWD-MAP-PPG-PWD-508167</td> <td>Revision: A.12</td> </tr> <tr> <td>Drawn By: N. Fun</td> <td>Approved By: I. Neilson</td> </tr> <tr> <td>Date: 13/12/2024</td> <td>Map Size: A3</td> </tr> </table> <p> Joint Venture </p> <p> 0 1 Kilometres Coordinate System: GDA2020 MGA Zone 55 </p>	Drawing Number: SRL-301-AJM-TPWD-MAP-PPG-PWD-508167	Revision: A.12	Drawn By: N. Fun	Approved By: I. Neilson	Date: 13/12/2024	Map Size: A3
Drawing Number: SRL-301-AJM-TPWD-MAP-PPG-PWD-508167	Revision: A.12								
Drawn By: N. Fun	Approved By: I. Neilson								
Date: 13/12/2024	Map Size: A3								

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FIGURE 6.1 CHELTENHAM STUDY AREA SEPARATION DISTANCES

6.2 Clayton Structure Plan Area

Within Structure Plan Area:

- Monash Health – the hospital does not have an applicable category in the Separation Distance Guideline. Hospitals accommodate patients and are frequented by members of the public who would be very sensitive to odour in a healthcare environment. It is assumed that any chemicals stored on-site are adequately stored, with a correspondingly low chance of emitting odour, so no separation distance is applicable.
- Stug Australia – this business specialises in the precision machining of engineering plastics and metals. From the company’s website and a view of the business from the street, they do not appear to produce plastics from raw materials by chemical processes. The business could qualify under the ‘Plastics manufacture or recycling’ category in the Separation Distance Guideline, for which the activity is defined as ‘conversion of raw plastic materials into finished products’. This category has a production-dependent separation distance of 2000 tonnes per year, for which a 200-metre separation distance would apply. In addition, the premises holds no permission from EPA Victoria, which would be required if the manufacturing rate exceeded the same production threshold of 2000 tonnes per year of chemical products (category G01 (Chemical works) in Schedule 1 of the Environment Protection Regulations). No separation distance is therefore applicable to this site.
- Stone masons (multiple) – these businesses include Stone Construction Australia (1340 Centre Road, Clayton), Classique Stone (7B Audsley Street, Clayton South), Australia Stone Expert (16-18 Bendix Drive, Clayton), and other small stone mason businesses. Additional stone mason businesses are located within 1-kilometre radius of the Structure Plan Area, such as F. Hallett & Son (27 Manton Road, Oakleigh South). The businesses would be classified under the ‘Concrete and stone article manufacture’ category of the Separation Distance Guideline, which has a separation distance of 100 metres if the business produces over 5000 tonnes per year. While there are a number of these businesses within the Clayton Structure Plan Area or within the 1-kilometre radius, the facilities are located on small premises with activities conducted in buildings and little or no outdoor storage. Whilst it is unknown if these businesses would exceed the production rate of 5000 tonnes of stone articles per year, it is considered likely that any fugitive dust emissions generated at the sites would be infrequent and small in scale and duration. No separation distances are considered applicable for these businesses.

Within 1-kilometre radius of Structure Plan Area:

- Badge Construction (SA) – this construction is occurring on the same site as PPG operations, and is assumed to be temporary. The business holds a waste designation for ‘fill waste and not priority waste’, so would not require a separation distance regardless.
- PPG Industries – this business is a large-scale manufacturer of industrial, automotive, architectural and refinish coatings, and holds EPA Victoria licences for manufacture using chemical processes at a production rate of over 2000 tonnes per year, and for storing at least 10,000 litres of specific carbon compounds or flammable substances. There are multiple production-based categories in the Separation Distance Guideline which could apply to PPG Industries, including ‘paint and ink production’, ‘rubber, polyester and synthetic resins production’, and ‘manufacture of products using fibreglass and resin’. Additionally, the ‘other organic and inorganic chemical production’, ‘bulk storage of chemicals’ or ‘chemical blending or mixing’ categories may also apply to its operations, especially when considering its current EPA Victoria licences.

Most of the categories mentioned above have a production-volume-based separation distance of 500 metres. The chemical storage category (specifically, ‘bulk storage of volatile odorous chemicals’) has a separation distance of 1000 metres, but the separation distance for ‘Other organic and inorganic chemical production’ is case-by-case. PPG Industries has confirmed in communications with SRLA on 21 May 2024

that their capacity allows the exceedance of the 1000 tonnes bulk chemical storage threshold (although this threshold was not being exceeded at the time of the communications). As indicated in Section 4.6.6, EPA Victoria has advised the 1000-metre separation distance for the chemical storage category is applicable to tank farms and terminals, which does not apply to PPG Industries. It is therefore anticipated that a 500-metre separation distance will sufficiently mitigate the odour risks of this business.

Due to the size of this separation distance and the potential for this distance to encroach into the Clayton Structure Plan Area, the separation distance has been measured from the activity perimeter within the site in accordance with EPA Victoria guidance (see Section 4.6.2). The activity perimeter was inferred from the site layout plan included with the site's operating licence issued by EPA Victoria. This separation distance overlaps with the Clayton Structure Plan Area in a small portion of its south-eastern part.

As a result, an odour risk assessment was undertaken for PPG Industries (see Appendix A). This risk assessment concluded that PPG Industries has an overall low odour risk potential when considering its primary purpose, and the separation distance to the Structure Plan Area which is at least 370 metres. Consequently, it is concluded that no constraints on land use planning in the Clayton Structure Plan Area are considered necessary due to the proximity of PPG Industries.

- Mazzeo Nominees (B&A Motor Body Repairs) – this business holds a registration to accept waste comprising of 'end-of-life vehicles'. According to the company website, the primary focus of the business is automotive repairs. The potential for odour emissions from this business is regarded as minimal, and using the approach defined in Section 2.4 for businesses engaging in vehicle repairs or wrecking, no separation distance is applicable.
- TopGun Powder Coating – this business applies dry powder coatings to metals electrostatically, which does not fit into any manufacturing categories in the Separation Distance Guideline. From a street visit, it was apparent that the activities are all carried out within an enclosed building, and the property is 270 metres from the Clayton Structure Plan Area boundary. This distance exceeds the 250-metre separation distance in the Separation Distance Guideline for potentially similar industries such as production of flour, or mining of minerals (crushing, screening, stockpiling and conveying). Given the low risk of dust emissions and the available distance between the site and the Structure Plan Area, no further consideration of separation distances for this site is warranted.
- Dulux Group (Australia) – this business holds a waste designation for plastics (specifically waste code Z500, which is an industrial waste) and not priority waste. The premises hosts the headquarters for the Dulux Group as well as a Dulux Innovation and Technology Centre. The company's website does not show the premises as a production site. In addition, the premises holds no permission from EPA Victoria, which would be required if the manufacturing rate exceeded 2000 tonnes per year of chemical products (category G01 (Chemical works) in Schedule 1 of the Environment Protection Regulations). The same production threshold would be required to trigger a requirement for a separation distance in EPA Victoria Publication 1943 (paint and ink production exceeding 2000 tonnes per year). No separation distance is therefore applicable to this site.
- Solenis Australia – this business holds a licence for manufacture using chemical processes with a production capacity of at least 2000 tonnes per year. Similar to PPG industries above, the 'Other organic and inorganic chemical production' category of the Separation Distance Guideline applies to this business. While the production threshold in this category is exceeded by definition of this business's licence, the applicable separation distance is case-by-case. From the NPI entry for this business, the main pollutants emitted are carbon monoxide and oxides of nitrogen, both at a capacity of less than 1 tonne over the 2021/2022 period. Given the high chemical production capacity, but the relatively low emissions production (the emissions are less than a quarter of those from PPG Industries for the same pollutants), a separation distance smaller than that applicable for PPG Industries (500 metres) could probably be justified. However,

a 500-metre separation distance does not encroach into the Structure Plan Area so is recommended conservatively for this business.

- Imlachs – this business holds a registration to accept waste comprising of ‘end-of-life vehicles’. Aerial photographs and a drive-by reconnaissance show this to be a large site with wrecking facilities. However, the site is more than 800 m from the Structure Plan Area boundary, and therefore the risk of odours or dust from vehicle wrecking at the site reaching land uses within the Structure Plan Area is negligible. No separation distance is applicable.
- Centre Scrap Metal – this business holds a registration to receive, store and process scrap metal (steel) and waste tyres. Aerial photographs of the site show a large outdoor area and pile of vehicles. While it is possible that some of the vehicle wrecking activities carried out could emit odour at times, the site is 780 metres from the boundary of the Structure Plan Area, so the potential for nuisance odour to be experienced in the Structure Plan Area is very low. No separation distance is applicable.
- Essity Australasia – this business manufactures paper and tissue products for the health market, but does not hold an EPA Victoria operating licence required to ‘process wood, wood products, waste paper or other cellulose materials to form pulp, paper or cardboard’ (category F03 in Schedule 1 of the Environment Protection Regulations). If there are paper or tissue products being manufactured at this facility, a 500-metre separation distance would be applicable per the Separation Distance Guideline. However, the lack of operating licence suggests the separation distance would not apply. In any case, no further investigation is recommended because the business is well outside the Clayton Structure Plan Area and a 500-metre separation distance would not encroach into the Structure Plan Area.
- Visy Plastics – this business would qualify for the ‘Plastics manufacture or recycling’ category of the Separation Distance Guideline. However, this category’s associated separation distance has a production threshold of 2000 tonnes per year. This business would be required to hold a permission from EPA Victoria under category G01 (Chemical Works) in Schedule 1 of the Environment Protection Regulations if the production capacity exceeded 2000 tonnes per year of chemical products. Since this business does not hold a permission, it is also unlikely to reach the 2000 tonnes per year threshold for requiring a separation distance. No separation distance is therefore applicable. In any case, if the associated production threshold of 2000 tonnes per year was exceeded, a 200-metre separation distance would be applicable which would not encroach into the Structure Plan Area.
- Visy Packaging – this business holds a licence for can and drum coating, which corresponds to the ‘Surface coating (including drum coating)’ category in the Separation Distance Guideline. This category has an associated 200-metre separation distance, which is applicable for this business. This distance does not encroach into the Structure Plan Area.
- Hanson Construction Materials – this business holds a registration to store concrete on-site. This type of activity would qualify as either a transfer station or a materials recovery and recycling facility in line with the activity descriptions in the Separation Distance Guideline for potential dust risks, and in either definition a default 250-metre separation distance is applicable.
- Quality Bakers Australia – this business produces baked goods, which are covered in the Separation Distance Guideline under the ‘Bakery’ category. This category has production-volume-dependent separation distances. This business may exceed the production threshold of 200 tonnes per year which would invoke a 100-metre separation distance. If heat is used to clean baking equipment, the separation distance would be case-by-case (assumed more than 100 metres). However, it is not known if this practice occurs. This business is over 500 metres from the Structure Plan Area boundary. Given the relatively small separation distance required for exceedance of the production threshold alone, it is likely that even if heat is used to clean baking equipment at the facility, the resulting separation distance would not encroach into the Structure Plan Area. No further consideration of separation distances for this site is applicable.

- Service Stream Limited – this business holds a registration to temporarily store asbestos. The effective management of asbestos is very important due to its potential effects on worker and public health from mismanagement. Asbestos management is not considered an amenity issue, since it relates more directly to public health and hazard management. The activities of this business are therefore outside the scope of this assessment. In addition, it is assumed that management of dust is likely to be very tightly controlled, given the risk relating to asbestos emissions. No separation distance is applicable.
- Ayazi Auto Parts – this business holds a registration to receive, store and process ‘liquid organic wastes including commercial food’ but excluding most types of putrescible/organic wastes. Given the business’s purpose as an auto parts dealer, it is considered likely the liquid organic wastes mostly relate to vehicle oils and fluids. This kind of waste is classified as priority industrial waste but does not carry a high risk of odour emissions. The default separation distance for a business classified as a ‘Priority industrial waste treatment facility’ is 500 metres, which is not likely to be applicable to this site due to the limited types of wastes stored. In any case, a 500-metre separation distance would not encroach into the Structure Plan Area so no further investigation is necessary.
- Olympic Polymers – this business is a plastic resin manufacturer, specialising in cleaning, sorting and remilling of post-industrial and post-consumer plastic into resins for reuse in industry. The business holds a registration to receive, store and process plastics with Plastics Identification Code #1 through #7. There is a category in the Separation Distance Guideline for ‘Plastics manufacture or recycling’ which this business would fall under, for which a default 200-metre separation distance is applicable. This business may also be required to hold a licence from EPA Victoria under category G01 (Chemical Works) in Schedule 1 of the Environment Protection Regulations for ‘production by any chemical process’ if the production capacity exceeded 2000 tonnes per year. Since this business does not hold an operating licence, it follows that the production threshold for the separation distance is not being exceeded, so no separation distance is applicable.
- Hondworld – this business holds a registration to accept waste comprising of ‘end-of-life vehicles’. Aerial photographs of the site show a small outdoor area at the rear of the site and pile of vehicles. While it is possible that some of the vehicle wrecking activities carried out could emit odour at times, the site is nearly 1000 metres from the boundary of the Structure Plan Area, so the potential for nuisance odour to be experienced in the Structure Plan Area is very low. No separation distance is applicable.
- EcoRecyclers – this business holds a registration to receive, store and process industrial commercial and demolition waste at two locations on opposing sides of Garden Road. This type of activity would qualify as either a transfer station or a materials recovery and recycling facility in line with the activity descriptions in the Separation Distance Guideline for potential dust risks, and under either definition, a default 250-metre separation distance is applicable. No further assessment has been carried out because this distance just touches the Structure Plan Area, adjacent to land which is already developed as residential use, and so the business is not considered to present a potential dust risk that could affect development within the Structure Plan Area.
- Darley Firebrick (Refractories) – this business produces bricks and other refractory materials, which is covered in the Separation Distance Guideline under the ‘Brick, tile, pipe, ceramics and refractory manufacturing’ category. This category’s associated separation distance has a production threshold of 10,000 tonnes per year, which is also the threshold for requiring a permission under category H03 (Ceramics) of Schedule 1 of the Environment Protection Regulations. As the site holds no EPA Victoria permission, it is unlikely this business exceeds the specified production threshold. No separation distance is applicable.
- JK Recycling – this business has a registration to accept and treat metals. The ‘Materials recovery and recycling facility (accepting scrap metal)’ category in the Separation Distance Guideline is applicable to this

business. This category has a default separation distance of 500 metres, which is applicable but does not encroach into the Clayton Structure Plan Area.

- Rezco Resins – this business produces composite resins, which is covered under the ‘Rubber, polyester and synthetic resins production’ category of the Separation Distance Guideline. However, this category’s associated separation distance has a production threshold of 2000 tonnes per year. This business would be required to hold a permission from EPA Victoria under category G01 (Chemical Works) in Schedule 1 of the Environment Protection Regulations if the production capacity exceeded 2000 tonnes per year of chemical products. Since this business does not hold a permission, it is unlikely to reach the 2000 tonnes per year threshold for requiring a separation distance. No separation distance is applicable.
- Techniques Incorporated – this business blends and manufactures powdered food products, including dairy products. Like Maltra Foods, this business could potentially qualify under the ‘Milk products’ category in the Separation Distance Guideline, with a default 100-metre separation distance if more than 200 tonnes of milk or dairy products are manufactured per year. However, the business would also be required to hold a permission from EPA Victoria under category D07 (Milk processing or manufacturing dairy products) in Schedule 1 of the Environment Protection Regulations if the production capacity exceeded 200 tonnes per year of milk or dairy products. The business does not hold a permission, and so it follows that the production threshold for a separation distance for milk products is not being exceeded. No separation distance is applicable.
- AGC Plastics – this business manufactures plastics and resins, qualifying under the ‘Plastics manufacture or recycling’ and the ‘Rubber, polyester and synthetic resins production’ categories of the Separation Distance Guideline, which have default separation distances of 200 metres and 500 metres respectively. This business would be required to hold a permission from EPA Victoria under category G01 (Chemical Works) in Schedule 1 of the Environment Protection Regulations if the production capacity exceeded 2000 tonnes per year of chemical products. Both the default separation distances are only applicable if the business’ production capacity exceeded 2000 tonnes per year of plastics and resins. Since this business does not hold a permission, it follows that the production threshold for the separation distance is not being exceeded, so no separation distance is applicable.
- Two Rupees Brewing – this business is a micro brewery, bar and restaurant which would potentially qualify for a default separation distance under the ‘Alcoholic beverage manufacturing’ category in the Separation Distance Guideline, if the production threshold exceeds 2000 litres per day (250-metre separation distance) or 5000 litres per day (500-metre separation distance). The building’s dimensions are roughly 11 metres x 40 metres, which includes the restaurant and bar space. The production capacity for this business is not known, but considering that a batch of beer typically requires up to 2 weeks of fermentation (requiring up to 28 m³ of fermentation vessel volume for 2000 litres per day production plus additional volume for cleaning, preparation, and post-fermentation processing) it is considered unlikely the business is exceeding the separation distance production threshold due to the size of the premises. In addition, the business would require a permission from EPA Victoria under category D09 (Beverage manufacturing) in Schedule 1 of the Environment Protection Regulations if the production capacity exceeded 300 kilolitres per year (average of 822 litres per day). The business holds no permissions, so it is assumed the production threshold to trigger a separation distance requirement is not exceeded. No separation distance is applicable.
- Davids All Metal Removals – this business recycles scrap metal on a small, mostly open-air site adjacent to the railway and 280 metres from the boundary of the Structure Plan Area. Using the approach defined in Section 2.4 for businesses engaging in vehicle repairs or wrecking, no separation distance is applicable.
- Monash University – this is a large university also housing research facilities. In theory, there would be chemicals stored on-site that could trigger a 100-metre separation distance. However, the university itself is a sensitive land use since it is a tertiary and higher education facility, and is likely to store small quantities of a wide range of chemicals of varying toxicity and volatility. It is assumed that necessary precautions are

taken to minimise any emissions, including odours, from any chemicals stored on-site. No separation distance is applicable.

- CSIRO – this is a scientific and industrial research facility. Similarly to Monash University, while chemicals are likely to be stored on-site, it is assumed that due to the nature of the facility that the risk of odour emissions is very low. No separation distance is applicable.
- Macktow Pty Ltd – this towing business holds a registration to accept waste comprising of ‘end-of-life vehicles’. Using the approach defined in Section 2.4 for businesses engaging in vehicle repairs or wrecking, no separation distance is recommended.
- Elite Castings – this metal casting business uses sand-casting techniques, which has an applicable separation distance under the ‘Metal casting’ category in the Separation Distance Guideline. This separation distance is at least 500 metres, and increases to 1000 metres if more than 500 kilograms of metal is cast per cycle. It does not appear the latter threshold is exceeded based on the size of the facility and the products available for casting as advertised on the business’ website. A 500-metre separation distance is therefore recommended for this business but it does not encroach into the Clayton Structure Plan Area.
- A.F. Diecasters – this metal casting business uses die casting techniques, which requires a 100-metre separation distance per the ‘Metal casting’ category in the Separation Distance Guideline, noting this distance does not encroach into the Structure Plan Area.
- David Collins (Custom KBD) – this business has a registration to accept and treat small amounts of e-waste. Using the approach defined in Section 2.4 for businesses storing and/or processing e-waste, no separation distance is recommended.
- Kaiju! Beer – this brewery falls under the ‘Alcoholic Beverage Manufacturing’ category in the Separation Distance Guideline, for which separation distances of 250 metres or 500 metres may be applicable. This business would be required to hold a permission from EPA Victoria under category D09 (Beverage manufacturing) in Schedule 1 of the Environment Protection Regulations if the production capacity exceeded 300 kilolitres per year of beverages. Both potential separation distances are only applicable if the business’ production capacity exceeded 2000 litres per day. Since this business does not hold a permission, and therefore does not produce more than ~820 litres per day, the production threshold for the separation distance is not being exceeded, so no separation distance is recommended.
- Robert Bosch – this is a large-scale manufacturer of tools and appliances. It is currently located on a site listed on the Priority Sites Register (PSR) as a ‘current industrial site’, requiring ‘assessment and/or clean up’. The site holds no EPA Victoria permission, indicating the production thresholds for separation distances due to chemical usage are unlikely to be met and the site does not present an odour or dust emission risk. No separation distance is applicable.
- Sterling Global – this is a property investment and development group which is developing ‘Talbot Village’, a residential development, on the former Talbot quarry. The site of the development is listed on the PSR as ‘former landfill’, requiring ‘ongoing management’. The Talbot Village website (talbotvillage.com.au) describes detailed testing and reports which have been approved by an EPA Victoria-approved independent auditor, and that safety measures have been put in place to ensure the process of rehabilitation and the subsequent use of the site will be safe. It is anticipated that Sterling Global’s odour and dust mitigation measures will be sufficient so there is no odour or dust amenity risk from this development to the Structure Plan Area (considering it is some 500 metres west of the Structure Plan Area). No separation distance is therefore recommended.
- Polyrok Australia Pty Limited – this business is a recycled plastic aggregate manufacturer holding a registration to accept and treat municipal (kerbside) waste, industrial waste from construction and

demolition, commercial and industrial sources which include putrescible waste, and plastics. While this facility is not a transfer station by traditional definition, the waste streams it accepts can be odorous and the transfer station category in the Separation Distance Guideline for odour may apply here. Since the site accepts putrescible waste a default 500-metre separation distance would be applicable in this case. Further investigation would be required to determine if this separation distance applies. However, the business is far enough away from the Clayton Structure Plan Area that a 500-metre separation distance would not encroach into the area. No separation distance is applicable.

- Polykastron – this business holds a registration to accept waste comprising of ‘end-of-life vehicles’. Using the approach defined in Section 2.4 for businesses engaging in vehicle repairs or wrecking, no separation distance is recommended.
- FGB Natural Products – this business is a manufacturer of nutritional and pharmaceutical products, and has facilities for chemical storage and blending. There are several categories in the Separation Distance Guideline which are applicable to this industry’s activities, including categories for chemical blending or mixing, and production of pharmaceutical or veterinary products. Based on the description of operations at the business from their website, it is possible that chemical blending is occurring on-site at a rate exceeding 5000 tonnes per year, and that pharmaceutical production on-site exceeds 2000 tonnes per year. In both these cases, the default 500-metre separation distance provided in the Separation Distance Guideline is applicable.

Table 6.2 summarises the default separation distances in the Clayton Study Area. Activities classified as ‘temporary’ by grey shading in Table 6.2 are not included. Figure 6.2 shows the location and extent of any default separation distances in the Study Area.

Overlapping default separation distances to the east of the Clayton Structure Plan Area for Solenis, Polyrok, plus the nearby Imlach's site (which is far enough from the Structure Plan Area to not be considered individually for a separation distance), indicate the potential for cumulative effects near the south east portion of the Structure Plan Area that may extend beyond the default separation distances. However, examination of the sources indicates that the type of odour is likely to be different due to the nature of the activities that potentially generate the odour. It is therefore considered that as the odour characteristics would be different this would be unlikely to extend the separation distance from each industry but would likely increase the frequency of potential odour impact, of any type, in the overlapping areas. The overlapping areas are outside the Clayton Structure Plan Area, and the consideration of increased frequency of odour impact due to cumulative impacts in the overlapping areas is not material.

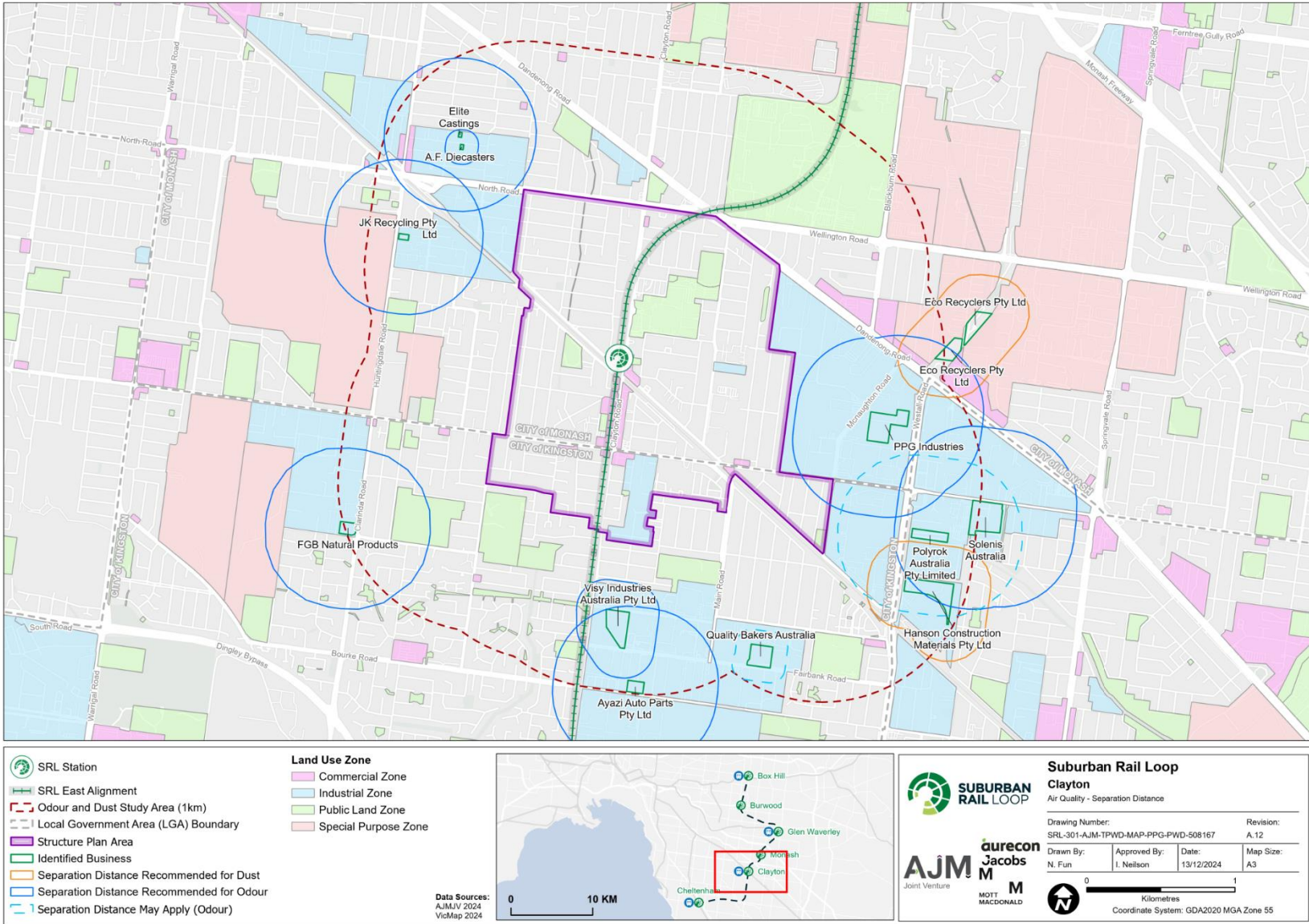
TABLE 6.2 SEPARATION DISTANCES FOR ODOUR AND DUST – CLAYTON STUDY AREA

BUSINESS / FACILITY NAME	OPERATIONS	IS A DEFAULT SEPARATION DISTANCE APPLICABLE FROM THE SEPARATION DISTANCE GUIDELINE?	SUMMARY OF ASSESSMENT
Within Structure Plan Area			
Monash Health	Hospital	No	No separation distance applicable.
Stug Australia	Plastics and metals engineering	No	Since this business does not hold a permission, it is unlikely to require a separation distance.
Stone masons (multiple)	Stone article manufacture	No	Each of the identified individual businesses are considered unlikely to exceed the prescribed activity threshold so would not trigger the separation distance requirement.

BUSINESS / FACILITY NAME	OPERATIONS	IS A DEFAULT SEPARATION DISTANCE APPLICABLE FROM THE SEPARATION DISTANCE GUIDELINE?	SUMMARY OF ASSESSMENT
Within 1-kilometre radius of Structure Plan Area			
PPG Industries	Manufacture of automotive, industrial, architectural and refinish coatings	Yes – 500 m	A default 500-m separation distance for odour applies. See site-specific odour risk assessment in Appendix A. Odour risk at the Structure Plan Area boundary is assessed as low, with no land use development restrictions recommended.
Mazzeo Nominees Proprietary Limited (B&A Motor Body Repairs)	Automotive repairs	No	No separation distance applicable.
TopGun Powder Coating	Industrial and general powder coating	No	No separation distance applicable.
Dulux Group (Australia) Pty Ltd	Paint and coatings research facility	No	No separation distance applicable.
Solenis Australia	Manufacturing and warehousing of chemical products for pulp & paper and industrial water treatment industries	Yes – 500 m	The separation distance does not encroach into the Structure Plan Area.
Imlachs Pty Ltd	Self-serve auto parts seller	No	No separation distance applicable.
Centre Scrap Metal Pty Ltd	Car wrecking and auto parts reseller	No	No separation distance applicable.
Essity Australasia	Paper and tissue products manufacturer for the health industry	No	Since this business does not hold a permission, it is unlikely to require a separation distance. In any case, the separation distance does not encroach into the Structure Plan Area.
Visy Plastics	Plastics and packaging manufacturer	No	Since this business does not hold a permission, it is unlikely to reach the production threshold for requiring a separation distance. In any case, the separation distance does not encroach into the Structure Plan Area.
Visy Packaging	Packaging manufacturer	Yes – 200 m	The separation distance does not encroach into the Structure Plan Area.
Hanson Construction Materials Pty Ltd	Concrete waste handling and storage	Yes – 250 m	The separation distance does not encroach into the Structure Plan Area.
Quality Bakers Australia	Bakery / Baked Products Factory	Possibly – 100 m	The separation distance does not encroach into the Structure Plan Area.
Service Stream Limited	Construction operation and maintenance of telecommunications, utilities and transport	No	No separation distance applicable.
Ayazi Auto Parts Pty Ltd	Auto parts retailer	Yes – 500 m	The separation distance does not encroach into the Structure Plan Area.

BUSINESS / FACILITY NAME	OPERATIONS	IS A DEFAULT SEPARATION DISTANCE APPLICABLE FROM THE SEPARATION DISTANCE GUIDELINE?	SUMMARY OF ASSESSMENT
Olympic Polymers	Plastic resin manufacturer	No	No separation distance applicable.
Hondworld Pty Ltd	Auto service and parts retailer	No	No separation distance applicable.
EcoRecyclers Pty Ltd	Recycler of construction and building materials	Yes – 250 m	The separation distance does not encroach into the Structure Plan Area.
Darley Firebrick (Refractories)	Fire brick and refractory material manufacturer	No	Since this business does not hold a permission it is unlikely to require a separation distance.
JK Recycling Pty Ltd	Scrap metal recycler	Yes – 500 m	The separation distance does not encroach into the Structure Plan Area.
Rezco Resins Pty Ltd	Composites manufacturer	No	Since this business does not hold a permission it is unlikely to require a separation distance.
Techniques Incorporated Pty Ltd	Powdered food production	No	Unlikely to exceed the prescribed activity threshold so would not trigger the separation distance requirement.
AGC Plastics Pty Ltd	Plastics manufacturer	No	Since this business does not hold a permission it is unlikely to require a separation distance.
Two Rupees Brewing	Brewery	No	Unlikely to exceed the prescribed activity threshold so would not trigger the separation distance requirement.
Davids All Metal Removals	Scrap metal recycler	No	No separation distance applicable.
Monash University	University and research facilities	No	No separation distance applicable.
CSIRO	Scientific and industrial research facility	No	No separation distance applicable.
Macktow Pty Ltd	Towing business	No	No separation distance applicable.
Elite Castings	Metal sand and die casting	Yes – 500 m	The separation distance does not encroach into the Structure Plan Area.
A.F. Diecasters	Metal die casting	Yes – 100 m	The separation distance does not encroach into the Structure Plan Area.
David Collins (Custom KBD)	Computer and computer accessories retailer	No	No separation distance applicable.
Kaiju! Beer	Brewery	No	Unlikely to exceed the prescribed activity threshold so would not trigger the separation distance requirement.
Robert Bosch	Large-scale manufacturer of tools and appliances	No	No separation distance applicable.
Sterling Group	Residential development on former quarry site	No	No separation distance applicable.

BUSINESS / FACILITY NAME	OPERATIONS	IS A DEFAULT SEPARATION DISTANCE APPLICABLE FROM THE SEPARATION DISTANCE GUIDELINE?	SUMMARY OF ASSESSMENT
Polyrok Australia Pty Limited	Recycled plastic aggregate manufacturer	Possibly – 500 m	The separation distance does not encroach into the Structure Plan Area.
Polykastron Pty Ltd.	Car service and parts provider	No	No separation distance applicable.
FGB Natural Products	Manufacturer and warehouse facility for flammable liquids, nutritional and pharmaceutical products	Yes – 500 m	The separation distance does not encroach into the Structure Plan Area.



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FIGURE 6.2 CLAYTON STUDY AREA SEPARATION DISTANCES

6.3 Monash Structure Plan Area

Within Structure Plan Area:

- Monash Recycling and Waste Centre (MRWC) – this is a council-owned transfer station accepting green waste and some putrescible waste co-mingled with commercial waste. A site visit was conducted to confirm the nature of the activities occurring at the transfer station. Kerbside municipal waste collections and food organics and garden organics (FOGO) are not accepted at the MRWC, and EPA Victoria advised the activity does not require a separation distance for potential odour risks (see Section 4.6.6). The facility still requires consideration for potential dust risks as a ‘materials recovery and recycling facility’ or ‘transfer station’ applies (both with a default 250-metre separation distance for dust in the Separation Distance Guideline). A dust risk assessment for the MRWC was carried out, and is detailed in Appendix B. The dust risk assessment concluded the MRWC facility has a ‘medium’ dust risk, for which EPA Victoria Publication 1943 advises that *‘you can expect some nuisance dust to occur and without careful and considered application of mitigation measures it is likely to cause impacts’*. In the case of the MRWC, this dust risk will also be highly dependent on the dustiness of incoming wastes. Recommendations relating to this business are detailed in Section 7.3.
- Monash SES – this site has a permanent stockpile of tree chippings from fallen trees collected by the SES and stored on the City of Monash land parcel, to the south of the MRWC. The stockpile size grows and shrinks over time depending on storms and demand for chip. This stockpile has been classified as a transfer station in line with the Separation Distance Guideline’s ‘transfer station’ category for dust risks, and a default 250-metre separation distance applies to this site. In accordance with EPA Victoria’s advice (see Section 4.6.6), this site has not been assessed as an odour risk. While it could be argued that long-term storage of organic matter in the stockpile could lead to composting activity which could emit odours when disturbed, this risk would be readily managed by removing the material from the site and is considered part of the GED for the activity. The dust risk assessment for the Monash SES site is provided in Appendix B. The dust risk assessment for the Monash SES stockpile concluded the facility has a ‘low’ dust risk, for which EPA Victoria Publication 1943 advises that *‘the risk of nuisance dust is likely to be minimal’*. Recommendations relating to this business are detailed in Section 7.3.
- Monash University – this business is also relevant to the Clayton Study Area. See Section 6.2 for discussion. No separation distance is applicable.
- CSIRO – this business is also relevant to the Clayton Study Area. See Section 6.2 for discussion. No separation distance is applicable.
- Moderna mRNA production facility – this is a new vaccine production facility in development with Monash University. This business would qualify under the ‘Pharmaceutical and veterinary product production’ category of the Separation Distance Guideline. This category has a production threshold of 2000 tonnes per year. If this threshold is exceeded, a 500-metre separation distance is applicable. However, the site holds no EPA Victoria permission, and is therefore assumed to not conduct activities that exceed the manufacturing threshold for a permission in category G01 (Chemical Works) of Schedule 1 of the Environment Protection Regulations, which specifies ‘manufacturing of products by any chemical process with a designed production capacity of at least 2000 tonnes per year of chemical products’. No separation distance is applicable.

Within 1-kilometre radius of Structure Plan Area:

- Leica Biosystems – this business manufactures medical and surgical equipment, although information about the specific products manufactured at this site are not currently available. This business would be required

to hold a permission from EPA Victoria under category G01 (Chemical Works) in Schedule 1 of the Environment Protection Regulations if the production capacity exceeded 2000 tonnes per year of chemical products. The category of 'Pharmaceutical and veterinary product production' in the Separation Distance Guideline potentially applies to this business, as may the categories 'Plastics manufacture or recycling' and 'Rubber, polyester and synthetic resins production'. All these categories also have production thresholds of 2000 tonnes per year. The site is listed on the NPI with emissions of ethanol and xylenes, but does not hold a permission from EPA Victoria implying that chemical production does not exceed 2000 tonnes per year. It is therefore concluded that none of the aforementioned production thresholds to trigger a separation distance are exceeded, so no separation distance is applicable.

- AAI Limited – this business holds a registration to accept waste comprising of 'end-of-life vehicles'. Using the approach defined in Section 2.4 for businesses engaging in vehicle repairs or wrecking, no separation distance is applicable.
- Comdain Infrastructure Pty Ltd – this business holds a registration to temporarily store asbestos. The effective management of asbestos is very important due to its potential effects on on-site workers and the general public off-site. Asbestos management is not considered an amenity issue, since it relates more directly to public health and hazard management. The activities of this business are therefore outside the scope of this assessment. In addition, it is assumed that management of dust is likely to be very tightly controlled, given the risk relating to asbestos emissions. No separation distance is applicable.
- Print X One – this printing business does not have any EPA Victoria permissions relating to printing. The separation distance from the Separation Distance Guideline relating to printing operations only applies if more than 100 kilograms of volatile organic compounds are being produced per day, which is also the threshold for requiring a permission under category J01 of Schedule 1 of the Environment Protection Regulations. As the site holds no EPA Victoria permission, it is assumed the 100 kilograms per day threshold is not being exceeded by this business. No separation distance is applicable.
- Betta Grower – this business manufactures inorganic fertiliser, but does not hold a permission from EPA Victoria implying that chemical production does not exceed 2000 tonnes per year. The activity qualifies under the 'Fertiliser production' category in the Separation Distance Guideline, but this category has a production threshold of 2000 tonnes per year to trigger the separation distance requirement. As the site holds no EPA Victoria permission, it is assumed the threshold is not being exceeded by this business. No separation distance is applicable.
- Macktow Pty Ltd – this business is also relevant to the Clayton Study Area. See Section 6.2 for discussion. No separation distance is applicable.
- Badge Construction (SA) – this business is also relevant to the Clayton Study Area. See Section 6.2 for discussion. No separation distance is applicable.
- Robert Bosch (Australia) Pty Ltd – this business is also relevant to the Clayton Study Area. See Section 6.2 for discussion. No separation distance is recommended.
- Goodyear & Dunlop Tyres (Aust) Pty Ltd (Beaurepaires) – this business holds a registration to store waste tyres. Using the approach defined in Section 2.4 for businesses storing waste tyres, no separation distance is applicable.
- Satellite Tooling & Plastics – this business manufactures plastic moulds and falls under the 'plastics manufacture or recycling' category of the Separation Distance Guideline, for which a 200-metre default separation distance is applicable. This business would be required to hold a permission from EPA Victoria under category G01 (Chemical Works) in Schedule 1 of the Environment Protection Regulations if the

production capacity exceeded 2000 tonnes per year of chemical products. The default separation distance is only applicable if the business' production capacity exceeded 2000 tonnes per year of plastics. Since this business does not hold a permission, it follows that the production threshold for the separation distance is not being exceeded, so no separation distance is applicable.

- JVS Tech Solutions Pty Ltd – this business holds a registration to temporarily store asbestos. As with Comdain Infrastructure above, asbestos management is not considered an amenity issue, since it relates more directly to worker and public health and hazard management. The activities of this business are therefore outside the scope of this assessment. In addition, it is assumed that management of dust is likely to be very tightly controlled, given the risk relating to asbestos emissions. No separation distance is applicable.
- Metal Care Recycler – this business qualifies as a 'Materials recovery and recycling facility' accepting scrap metal in the Separation Distance Guideline. The site is occupied by a large building with a small amount of outdoor space. The site is over 350 metres from the boundary of the Structure Plan Area. Using the approach defined in Section 2.4 for businesses engaging in metal recycling, no separation distance is applicable.
- Hospira Australia Pty Ltd – this business would qualify under the 'Pharmaceutical and veterinary product production' category of the Separation Distance Guideline. This category has a production threshold of 2000 tonnes per year. If this threshold is exceeded, a default 500-metre separation distance is applicable. However, the site holds no EPA Victoria permission, and so does not conduct activities that exceed the manufacturing threshold for a permission in category G01 (Chemical Works) of Schedule 1 of the Environment Protection Regulations, which specifies 'manufacturing of products by any chemical process with a designed production capacity of at least 2000 tonnes per year of chemical products'. No separation distance is applicable.
- Century Yuasa Batteries Pty Ltd – this business appears to no longer be operating at the Dunlop Road address, with the premises now occupied by Life Fitness. No separation distance is applicable.
- Australasian Food Group (Peters Ice Cream) – this business qualifies under the 'Milk products' category of the Separation Distance Guideline, for which a 100-metre default separation distance is applicable. This business would be required to hold a permission from EPA Victoria under category D07 (Milk processing or manufacturing dairy products) in Schedule 1 of the Environment Protection Regulations if the production capacity exceeded 200 tonnes per year of milk processing. The default separation distance is only applicable if the business' production capacity exceeded 200 tonnes per year of milk or dairy products. Since this business does not hold a permission, it follows that the production threshold that would trigger the need for a separation distance is also not being exceeded. This category in the Separation Distance Guideline also specifies that in all cases (even when the threshold is not being exceeded), there should be no odour or dust observed beyond the site boundary. During a roadside inspection, no odour or dust was observed for this site. No separation distance is applicable.
- Hondworld – this business is also relevant to the Clayton Study Area. See Section 6.2 for discussion. While it is possible that some of the vehicle wrecking activities carried out could emit odour at times, the odour emissions are expected to be minor and infrequent and the site is 230 metres from the boundary of the Structure Plan Area under the infrequent southeasterly wind direction, so the potential for nuisance odour to be experienced in the Structure Plan Area is considered to be very low. No further odour risk assessment is considered to be necessary, and no separation distance is applicable.
- EcoRecyclers – this business is also relevant to the Clayton Study Area. See Section 6.2 for discussion. A 250-metre separation distance is applicable, but does not encroach into the Monash Structure Plan Area.

- Fischer Plastic Products – this business falls under the ‘plastics manufacture or recycling’ category of the Separation Distance Guideline, for which a 200-metre default separation distance is applicable. This business would be required to hold a permission from EPA Victoria under category G01 (Chemical Works) in Schedule 1 of the Environment Protection Regulations if the production capacity exceeded 2000 tonnes per year of chemical products. The default separation distance is only applicable if the business’ production capacity exceeded 2000 tonnes per year of plastics. Since this business does not hold a permission, it follows that the production threshold for the separation distance is not being exceeded, so no separation distance is applicable.
- Blowmech – this business would qualify under the ‘plastics manufacture or recycling’ category in the Separation Distance Guideline, for which a 200-metre default separation distance is applicable. This business would be required to hold a permission from EPA Victoria under category G01 (Chemical Works) in Schedule 1 of the Environment Protection Regulations if the production capacity exceeded 2000 tonnes per year of chemical products. The default separation distance is only applicable if the business’ production capacity exceeded 2000 tonnes per year of plastics. Since this business does not hold a permission, it follows that the production threshold for the separation distance is not being exceeded, so no separation distance is applicable.
- Boss Polymer – this business manufactures plastics and rubber, so qualifies under the ‘Plastics manufacture or recycling’ and ‘Rubber, polyester and synthetic resins production’ categories in the Separation Distance Guideline. Both these categories have 2000 tonnes per year production thresholds for separation distances of 200 metres and 500 metres respectively. However, the site is unlikely to exceed the 2000 tonnes per year production threshold for a separation distance as it does not hold an EPA Victoria permission for chemical manufacturing. No separation distance is applicable.
- Admil Adhesives – this business manufactures silicone adhesives and some forms of polyurethane, so as with Boss Polymer above, the industry could be considered under the ‘Plastics manufacture or recycling’ or the ‘Rubber, polyester and synthetic resins production’ categories of the Separation Distance Guideline, which have default separation distances of 200 metres and 500 metres respectively. This business would be required to hold a permission from EPA Victoria under category G01 (Chemical Works) in Schedule 1 of the Environment Protection Regulations if the production capacity exceeded 2000 tonnes per year of chemical products. Both default separation distances are only applicable if the business’ production capacity exceeded 2000 tonnes per year of adhesives or polyurethane. Since this business does not hold a permission, it follows that the production threshold for the separation distance is not being exceeded, so no separation distance is applicable.
- ALSCO – this business is a rental service for linen and mats, which has laundry facilities for products once rented. The nature of the laundry services is unclear. However, the business highlights ‘eco-friendly’ materials and sustainable objectives. The risk of odour emissions causing nuisance is considered to be very low, and no separation distance is applicable.
- Maltra Foods – this is a food manufacturing business, operating a blending and packaging facility for powdered food products under contract. Included in this food production are powdered milk products such as drinking chocolate mixes, although there is no evidence that raw liquid milk, nor any other liquids, are processed on the site into dry products. Based on the nature of the business as a contract manufacturer of many different products, it is assumed that a high degree of product quality control and processing cleanliness is maintained to meet customer specifications and avoid cross-contamination of different products. In addition, as production is primarily blending of different raw materials in dry form, the potential for odour emissions from the process is likely to be low and any residual odours, if they do occur, would be benign in nature. From the street, the production appears to be well enclosed within a building, with no evidence of venting or outdoor storage. The business could potentially qualify under the ‘Milk products’ category in the Separation Distance Guideline, with a 100-metre default separation distance if more than

200 tonnes of milk or dairy products are manufactured per year. However, the business would also be required to hold a permission from EPA Victoria under category D07 (Milk processing or manufacturing dairy products) in Schedule 1 of the Environment Protection Regulations if the production capacity exceeded 200 tonnes per year of milk or dairy products. The business does not hold a permission, and so it follows that the production threshold for a separation distance for milk products is not being exceeded. No separation distance is applicable.

- Australian Polyurethane Solutions – this business produces plastics and rubber, so could be considered under the ‘Plastics manufacture or recycling’ or the ‘Rubber, polyester and synthetic resins production’ categories of the Separation Distance Guideline, which have default separation distances of 200 metres and 500 metres respectively. This business would be required to hold a permission from EPA Victoria under category G01 (Chemical Works) in Schedule 1 of the Environment Protection Regulations if the production capacity exceeded 2000 tonnes per year of chemical products. Both default separation distances are only applicable if the business’ production capacity exceeded 2000 tonnes per year of adhesives or polyurethane. Since this business does not hold a permission, it follows that the production threshold for the separation distance is not being exceeded, so no separation distance is applicable.
- Inglewood Coffee Roasters – this business is a coffee roastery, so is considered under the ‘coffee roasting’ category in the Separation Distance Guideline. This category has a 250-metre separation distance if the mass of coffee roasted per year exceeds 200 tonnes (noting also that it is not clear if the 200 tonnes relates to raw coffee beans throughput, or final dried and roasted product). Coffee roasting is not a prescribed activity requiring a permission from EPA Victoria under the Environment Protection Regulations, unless it uses fuel-fired plant for heating at a designed production capacity of at least 200 tonnes per year (Category D06, Schedule 1 of Environment Protection Regulations). If Inglewood Coffee Roasters uses fuel such as gas to heat the roasting oven, then it can be assumed the business does not exceed the 200 tonnes per year threshold because it does not hold a permission from EPA Victoria and no separation distance would be applicable.

If this business exceeds this threshold, a default 250-metre separation distance may apply. Anticipating this business may exceed the prerequisite threshold, an odour risk assessment for Inglewood Coffee Roasters is provided in Appendix A. The odour risk for Inglewood Coffee Roasters was estimated to be low. However, sensitivity to coffee odours is highly variable between individuals, and the risk may be higher for some receptors. Recommendations for this business are provided in Section 7.3.

- AGC Plastics – this business is also relevant to the Clayton Study Area. See Section 6.2 for discussion. No separation distance is applicable.
- Two Rupees Brewing – this business is also relevant to the Clayton Study Area. See Section 6.2 for discussion. No separation distance is applicable.
- Dulux Group (Australia) – this business is also relevant to the Clayton Study Area. See Section 6.2 for discussion. No separation distance is applicable.
- PPG Industries – this business is also relevant to the Clayton Study Area. See Section 6.2 for discussion. The available separation distance is 450 metres, which is not much less than the default 500-metre separation distance. An odour risk assessment is provided in Appendix A.3. The land use on the property at that point on the Monash Structure Plan boundary is newly developed as the M-City multi-storey hotel, apartment, retail, entertainment and office complex, and only the associated outdoor carpark alongside Princes Highway is within the 500-metre separation distance. The risk of exposure to nuisance odour at the Structure Plan Area boundary is assessed as very low and no further assessment is warranted.

- Techniques Incorporated – this business is also relevant to the Clayton Study Area. See Section 6.2 for discussion. No separation distance is applicable.
- TopGun Powder Coating – this business is also relevant to the Clayton Study Area. See Section 6.2 for discussion. The property is 460 metres from the Clayton Structure Plan Area boundary. This distance exceeds the 250-metre separation distance in the Separation Distance Guideline for potentially similar industries such as production of flour, or mining of minerals (crushing, screening, stockpiling and conveying). Given the low risk of dust emissions and the available distance between the site and the Structure Plan Area, no further consideration of separation distances for this site is warranted.
- Mazzeo Nominees (B&A Motor Body Repairs) – this business is also relevant to the Clayton Study Area. See Section 6.2 for discussion. The potential for odour emissions from this business is regarded as minimal, and using the approach defined in Section 2.4 for businesses engaging in vehicle repairs or wrecking, no separation distance is applicable.
- Monash Health – this facility is also relevant to the Clayton Study Area. See Section 6.2 for discussion. No separation distance is applicable.
- Rezco Resins – this business is also relevant to the Clayton Study Area. See Section 6.2 for discussion. No separation distance is applicable.
- Scouts Victoria (Mount Waverley) – Scouts Victoria operate a Container Deposit Scheme inside a building unit in a business park in Mount Waverley, which accepts glass, aluminium, liquid paperboard and some plastics. While there can be some odour in recycled containers from contents residues, due to the location and size of the premises and the enclosed nature and scale of activity conducted by the Scouts is considered to present a low risk of emitting any odours. No separation distance is applicable.
- Domestic Roofing Pty Ltd – this is a roof repairs and restoration service, with material supply and a tile yard. The business holds an EPA Victoria registration to store wastes including commercial garden and landscaping organics, timber (including sawdust), concrete, rubble and some metals. Given the nature of the waste stored and open-air tile storage yard, the site can be regarded under the transfer station category for dust in the Separation Distance Guideline. This category has a default 250-metre separation distance, which is applicable for this business. However, this distance does not encroach into the Structure Plan Area.
- Pazzi Marble & Granite – this business produces custom items made from natural stone, engineered stone and ultra compact surfaces to high end domestic and commercial projects. The business would be classified under the ‘concrete and stone article manufacture’ category of the Separation Distance Guideline, which has a 100-metre separation distance for dust if the business produces over 5000 tonnes per year. The production capacity for this business is not known. The site hosts two production / storage buildings and outdoor storage yards with some unsealed surfaces visible from the street. The default 100-metre separation distance is applicable to this business, which encroaches into the eastern edge of the Structure Plan Area over part of several land parcels that are already developed as residential land uses. A dust risk assessment for this business is provided in Appendix B, which concludes the risk of dust nuisance is low at the boundary of the Structure Plan Area. No restrictions on land use within the Structure Plan Area are recommended.

Table 6.3 summarises the applicable separation distances in the Monash Study Area. Figure 6.3 shows the location and extent of the applicable separation distances in the Study Area.

There are three businesses with default separation distances that encroach into the Monash Structure Plan Area and require further consideration. These are the Monash City Council Recycling and Waste Centre, Monash SES site, and Inglewood Coffee Roasters. These separation distances may impact development and sensitive land uses in the Structure Plan Area unless appropriate mitigations can be provided. Recommendations relating to these businesses are discussed in Section 7.3.

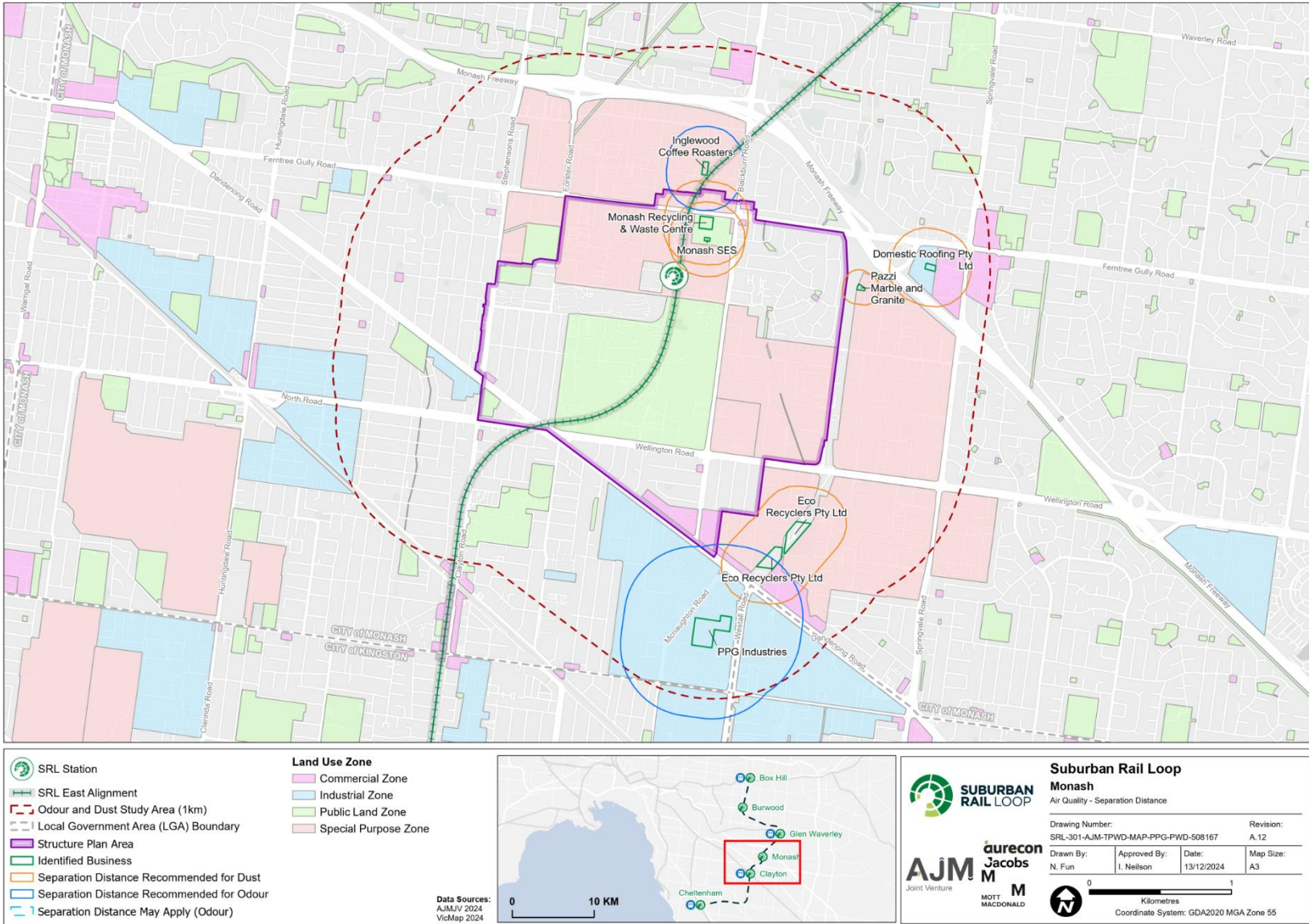
The 250-metre separation distance for the Monash SES stockpile overlaps with the 250-metre separation distance for the MRWC as both sites are close together, raising the possibility of cumulative impacts. However, as discussed in Appendix B.4.4 the risk of fine dusts becoming suspended in air and dispersing into the environment beyond the SES compound boundary is very low due to the nature of chip material (large particle size) stored on this stockpile, the site layout, and the activities conducted on the site. Therefore, the potential for dust to carry beyond the site boundaries and cause nuisance impacts is very different for each of these sites, the risk of cumulative impacts is minimal, and no additional considerations due to the potential for cumulative impacts are necessary.

TABLE 6.3 SEPARATION DISTANCES FOR ODOUR AND DUST – MONASH STUDY AREA

BUSINESS / FACILITY NAME	OPERATIONS	IS A DEFAULT SEPARATION DISTANCE APPLICABLE FROM THE SEPARATION DISTANCE GUIDELINE?	SUMMARY OF ASSESSMENT
Within Structure Plan Area			
Monash Recycling and Waste Centre	Transfer station	Yes – 250 m	See Appendix B for site-specific dust assessment and recommendations in Section 7.3.
Monash SES	Permanent wood chippings stockpile	Yes – 250 m	See Appendix B for site-specific dust assessment and recommendations in Section 7.3.
Monash University	University and research facilities	No	No separation distance applicable.
CSIRO	Scientific and industrial research facility	No	No separation distance applicable.
Moderna mRNA production facility	Medical research and vaccine production facility	No	Unlikely to exceed the prescribed activity threshold so would not trigger the separation distance requirement.
Within 1-kilometre radius of Structure Plan Area			
Leica Biosystems	Medical and surgical equipment manufacturing	No	Unlikely to exceed the prescribed activity threshold so would not trigger the separation distance requirement.
AAI Limited	Car insurance provider (accepting end-of-life vehicles)	No	No separation distance applicable.
Comdain Infrastructure Pty Ltd	Civil engineering organisation	No	No separation distance applicable.
Print X One	Commercial Printing	No	Unlikely to exceed the prescribed activity threshold so would not trigger the separation distance requirement.
Betta Grower	Garden supplies and fertiliser production	No	Unlikely to exceed the prescribed activity threshold so would not trigger the separation distance requirement.
Macktow Pty Ltd	Towing business	No	No separation distance applicable.
Robert Bosch	Large-scale manufacturer of tools and appliances	No	No separation distance applicable.
Goodyear & Dunlop Tyres (Aust) Pty Ltd (Beaurepaires)	Tyre and auto parts retailer	No	No separation distance applicable.

BUSINESS / FACILITY NAME	OPERATIONS	IS A DEFAULT SEPARATION DISTANCE APPLICABLE FROM THE SEPARATION DISTANCE GUIDELINE?	SUMMARY OF ASSESSMENT
Satellite Tooling & Plastics	Plastic injection moulding service	No	Unlikely to exceed the prescribed activity threshold so would not trigger the separation distance requirement.
JVS Tech Solutions Pty Ltd	Civil and technology engineering company	No	No separation distance applicable.
Metal Care Recycler	Metal recycling facility	No	No separation distance applicable.
Hospira Australia Pty Ltd	Human pharmaceutical and medicinal product manufacturing	No	Unlikely to exceed the prescribed activity threshold so would not trigger the separation distance requirement.
Australasian Food Group (Peters Ice Cream)	Ice Cream Manufacturing	No	Unlikely to exceed the prescribed activity threshold so would not trigger the separation distance requirement.
Hondworld Pty Ltd	Auto service and parts retailer	No	No separation distance applicable.
EcoRecyclers Pty Ltd	Recycler of construction and building materials	Yes – 250 m	This separation distance just touches the edge of the Structure Plan Area. No further dust risk assessment is required.
Fischer Plastic Products Pty Ltd	Plastics manufacturer	No	Unlikely to exceed the prescribed activity threshold so would not trigger the separation distance requirement.
Blowmech Plastics Pty Ltd	Plastic blow moulding	No	Unlikely to exceed the prescribed activity threshold so would not trigger the separation distance requirement.
Boss Polymer	Rubber and polymers manufacturer	No	Unlikely to exceed the prescribed activity threshold so would not trigger the separation distance requirement.
Admil Adhesives	Silicone, sealants and adhesives manufacturer	No	Unlikely to exceed the prescribed activity threshold so would not trigger the separation distance requirement.
ALSCO	Industrial laundry and mat cleaning	No	No separation distance applicable.
Maltra Foods	Food manufacturer	No	Unlikely to exceed the prescribed activity threshold so would not trigger the separation distance requirement.
Australian Polyurethane Solutions	Plastics manufacturer	No	Unlikely to exceed the prescribed activity threshold so would not trigger the separation distance requirement.
Inglewood coffee roasters	Coffee Roastery	Yes – 250 m	If this business exceeds the 200 tonnes per year production threshold, a default separation distance for odour applies. Further engagement with the business is required to confirm. See also site-specific odour risk assessment in Appendix A and recommendations in Section 7.3.
AGC Plastics Pty Ltd	Plastics manufacturer	No	Unlikely to exceed the prescribed activity threshold so would not trigger the separation distance requirement.
Two Rupees Brewing	Brewery	No	Unlikely to exceed the prescribed activity threshold so would not trigger the separation distance requirement.
Dulux Group (Australia) Pty Ltd	Paint and coatings research facility	No	No separation distance applicable.

BUSINESS / FACILITY NAME	OPERATIONS	IS A DEFAULT SEPARATION DISTANCE APPLICABLE FROM THE SEPARATION DISTANCE GUIDELINE?	SUMMARY OF ASSESSMENT
PPG Industries	Manufacture of automotive, industrial, architectural and refinish coatings	Yes – 500 m	A default 500-m separation distance for odour applies. See site-specific odour risk assessment in Appendix A. The risk of exposure to nuisance odour at the Structure Plan Area boundary is assessed as very low, with no land use development restrictions recommended.
Techniques Incorporated Pty Ltd	Powdered food production	No	Unlikely to exceed the prescribed activity threshold so would not trigger the separation distance requirement.
TopGun Powder Coating	Industrial and general powder coating	No	No separation distance applicable.
Mazzeo Nominees Proprietary Limited (B&A Motor Body Repairs)	Automotive repairs	No	No separation distance applicable.
Monash Health	Hospital	No	No separation distance applicable.
Rezco Resins Pty Ltd	Composites manufacturer	No	Unlikely to exceed the prescribed activity threshold so would not trigger the separation distance requirement.
Scouts Victoria (Mount Waverley)	Container Deposit Scheme site	No	No separation distance applicable.
Domestic Roofing Pty Ltd	Roof works and materials supply	Yes – 250 m	The default separation distance does not encroach into the Structure Plan Area.
Pazzi Marble & Granite	Stone article manufacture	Yes – 100 m	The default separation distance slightly encroaches into the Structure Plan Area, but the risk of dust nuisance is assessed to be low and no land use controls are recommended within the overlap between the separation distance and the Structure Plan Area.



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FIGURE 6.3 MONASH STUDY AREA SEPARATION DISTANCES

6.4 Glen Waverley Structure Plan Area

Within Structure Plan Area:

- Scouts Victoria (Glen Waverley) – Scouts Victoria operate a Container Deposit Scheme inside a building in their main office in Glen Waverley, which accepts glass, aluminium, liquid paperboard and some plastics. While there can be some odour in recycled containers from contents residues, due to the location and size of the premises and the enclosed nature and scale of activity conducted by the Scouts, it is considered to present a low risk of emitting any odours. No separation distance is applicable.
- Wilson Transformer Company Pty Ltd – this site is listed on the Priority Sites Register as a ‘current industrial site requiring assessment and/or clean-up’. Wilson Transformer Company currently operates on the site, manufacturing transformers and other large-scale electrical equipment. The scale and type of operations is unknown. This site is located approximately 50 metres from a primary school, and is surrounded by sensitive land uses on all sides: retail (Officeworks store) on the south boundary, accommodation (Quest Hotel) and houses to the west across Springvale Road, and houses on the north and east boundaries. It is assumed that for such sensitive land uses to be located so close to the facility that its air emissions are well controlled, and residual emissions to air are very low. This assessment concludes there is a low risk of additional pressure on the industry to meet the GED from the introduction of new sensitive land uses in the Structure Plan. No separation distance is therefore recommended.
- Bakeries (multiple) – All the bakeries identified in the Glen Waverley neighbourhood are small-scale businesses operating in commercial or retail areas (rather than industrial-sized facilities). Using the approach defined in Section 2.4 for bakeries of this nature, no separation distance is applicable.

Within 1-kilometre radius of Structure Plan Area:

- Super Cheap Auto Pty Ltd – this business holds an EPA Victoria registration to store waste oils, hydrocarbons, emulsions and transformer fluids excluding polychlorinated biphenyls on-site. The business is an enclosed commercial tenancy adjacent to residential areas, and is unlikely to store waste oils to the extent where they emit odour which impacts amenity. No separation distance is applicable.

Table 6.4 summarises the businesses in the Study Area. There are no businesses with applicable separation distances within the Structure Plan Area or the wider Study Area. In addition, no risk of cumulative effects from two or more industries is identified.

TABLE 6.4 SEPARATION DISTANCES FOR ODOUR AND DUST – GLEN WAVERLEY STUDY AREA

BUSINESS / FACILITY NAME	OPERATIONS	IS A DEFAULT SEPARATION DISTANCE APPLICABLE FROM THE SEPARATION DISTANCE GUIDELINE?	SUMMARY OF ASSESSMENT
Within Structure Plan Area			
Scouts Victoria	Container Deposit Scheme site	No	No separation distance applicable
Wilson Transformer Company Pty Ltd	Electrical equipment manufacturing	No	No separation distance applicable
Within 1 kilometre radius of Structure Plan Area			
Super Cheap Auto Pty Ltd	Auto parts and services retailer	No	No separation distance applicable

6.5 Burwood Structure Plan Area

Within Structure Plan Area:

- ADCO Group Pty Ltd – this business is a construction company completing works at Presbyterian Ladies' College, and the activity is regarded as temporary. No separation distance is applicable.
- Apecs Investment Castings Pty Ltd – this is a metal casting business which uses die-casting techniques to manufacture jewellery. While the Separation Distance Guideline specifies a 100-metre separation distance for die-casting, it is assumed based on the business' website that its production is limited to jewellery, indicating potential for only very small amounts of casting of molten metal, so the potential for odour emissions is very low. Using the assessment approach in Figure 4.1, the risk of odour emissions is considered sufficiently low that no further assessment is required, and it is concluded that no separation distance is applicable.
- EcoActiv Pty Ltd – this business retrieves and potentially stores a variety of wastes, particularly e-waste. Using the approach defined in Section 2.4 for businesses processing or storing e-waste, no separation distance is applicable.
- Ritter Australia Pty Ltd – this a Land Rover and Range Rover mechanic business, holding registrations to store waste tyres as well as other waste not generated at the site. Using the approach defined in Section 2.4 for businesses storing waste tyres and vehicle repairs, no separation distance is applicable.

Within 1-kilometre radius of Structure Plan Area:

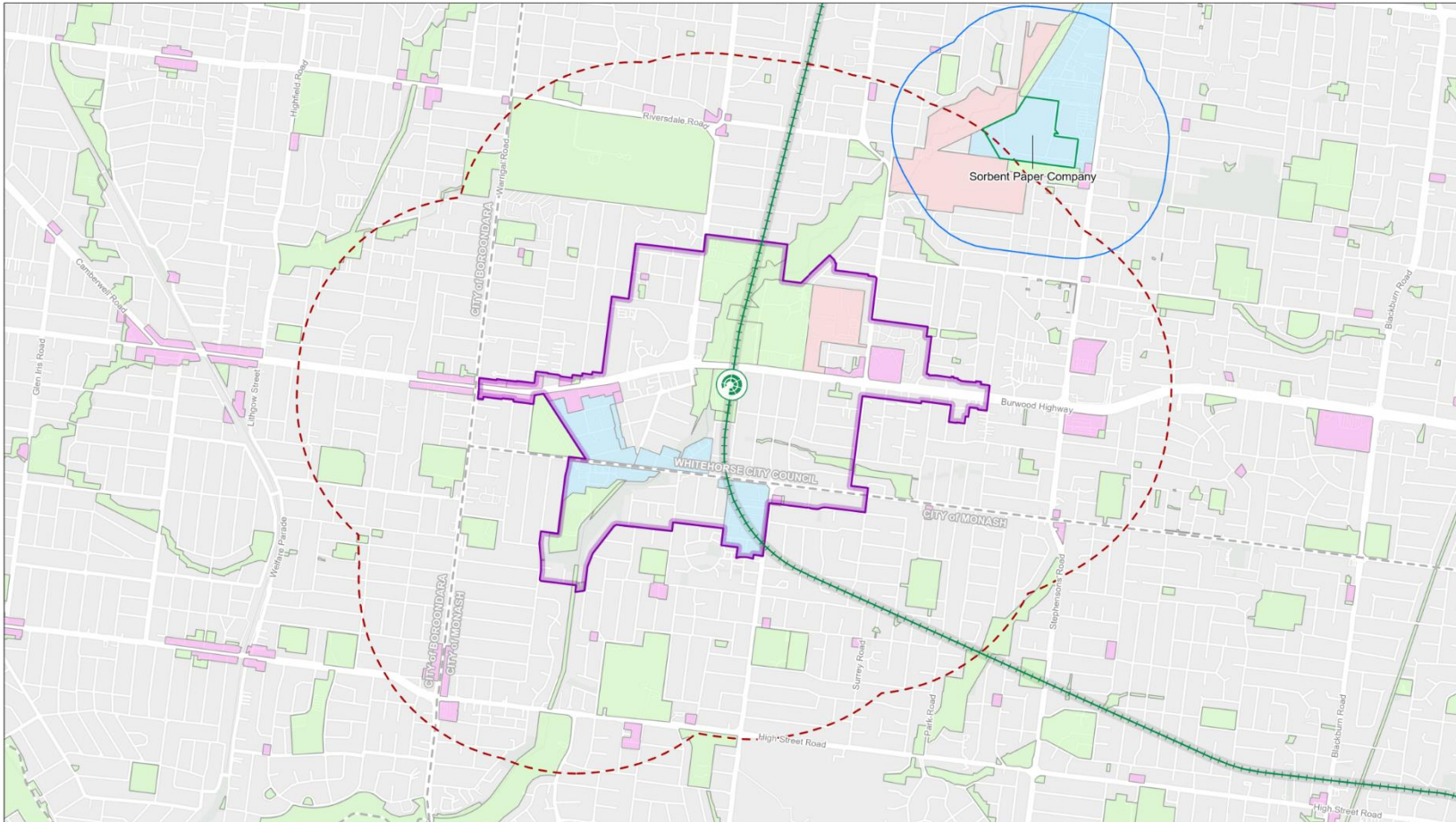
- Australand Burwood Residential No. 2 Pty Ltd – this is a residential area in development, holding a permit for wastewater supply / reuse. Any use of recycled water will need to employ effective odour control technology to meet the GED requirements and to avoid causing nuisance for residences built on the site. No separation distance is therefore necessary to manage the risk of odour nuisance extending further beyond the development site.
- Sorbent Paper Company Pty Ltd – this business holds an EPA Victoria operating licence to 'process wood, wood products, waste paper or other cellulose materials to form pulp, paper or cardboard', and therefore is a 'paper or paper pulp manufacturer' under the Separation Distance Guideline. However, this business does not have the space nor facilities for Kraft processes (converting wood into wood pulp) which attracts a 5-kilometre separation distance. A default 500-metre separation distance is therefore applicable and no further assessment has been carried out because this distance does not encroach into the Structure Plan Area.
- Bakeries (multiple) – All the bakeries identified in the Burwood neighbourhood are small-scale businesses operating in commercial or retail areas (rather than industrial-sized facilities). Using the approach defined in Section 2.4 for bakeries of this nature, no separation distance is applicable.

Table 6.5 summarises the applicable separation distances in the Study Area. Any activities classified as 'temporary' by grey shading in Table 5.5 or by description in the assessment above are not included. Figure 6.4 shows the location and extent of any applicable separation distances in the Study Area.

In summary, there are no businesses or facilities in the Study Area with applicable separation distances that encroach into the Burwood Structure Plan Area. In addition, no risk of cumulative effects from two or more industries is identified.

TABLE 6.5. SEPARATION DISTANCES FOR ODOUR AND DUST – BURWOOD STUDY AREA

BUSINESS / FACILITY NAME	OPERATIONS	IS A DEFAULT SEPARATION DISTANCE APPLICABLE FROM THE SEPARATION DISTANCE GUIDELINE?	SUMMARY OF ASSESSMENT
Within Structure Plan Area			
Apecs Investment Castings Pty Ltd.	Casting of gold alloys, platinum, silver, brass and bronze for the jewellery industry	No	No separation distance applicable
EcoActiv Pty Ltd.	Collection, disposal and transport of waste including e-waste and batteries	No	No separation distance applicable
Ritter Australia Pty Ltd	Auto parts retailer and car service provider	No	No separation distance applicable
Within 1-kilometre radius of Structure Plan Area			
Australand Burwood Residential No. 2 Pty Ltd.	Use of recycled water during development of residential properties	No	No separation distance applicable
Sorbent Paper Company Pty Ltd (This business is also in the Box Hill Study Area)	Manufacturer of paper tissue products	Yes – 500 m	The separation distance does not encroach into the Structure Plan Area.



SRL Station SRL East Alignment Odour and Dust Study Area (1km) Local Government Area (LGA) Boundary Structure Plan Area Identified Business Separation Distance Recommended for Dust Separation Distance Recommended for Odour Separation Distance May Apply (Odour)	Land Use Zone Commercial Zone Industrial Zone Public Land Zone Special Purpose Zone		<p>Suburban Rail Loop Burwood Air Quality - Separation Distance</p> <p>Drawing Number: SRL-301-AJM-TPWD-MAP-PPG-PWD-508167 Revision: A.12</p> <table border="1"> <tr> <td>Drawn By: N. Fun</td> <td>Approved By: I. Nelson</td> <td>Date: 13/12/2024</td> <td>Map Size: A3</td> </tr> </table> <p> Coordinate System: GDA2020 MGA Zone 55 </p>	Drawn By: N. Fun	Approved By: I. Nelson	Date: 13/12/2024	Map Size: A3
Drawn By: N. Fun	Approved By: I. Nelson	Date: 13/12/2024	Map Size: A3				

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FIGURE 6.4 BURWOOD STUDY AREA SEPARATION DISTANCES

6.6 Box Hill Structure Plan Area

Within Structure Plan Area:

- Box Hill Hospital – the hospital does not have an applicable category in the Separation Distance Guideline. Hospitals accommodate patients and are frequented by members of the public who would be very sensitive to odour in a healthcare environment. It is assumed that any chemicals stored on-site are adequately stored, with a correspondingly low chance of emitting odour. No separation distance is therefore applicable for Box Hill Hospital.
- Bob Jane Corporation Pty Ltd – this business holds an EPA Victoria registration to store waste tyres on-site. Using the approach defined in Section 2.4 for businesses storing waste tyres, no separation distance is applicable.
- Laing O'Rourke Australia Construction Pty Ltd (LXRP) – this business holds an EPA Victoria registration and permit for construction associated with the Surrey Hills and Mont Albert Level Crossing Removal Projects. It is assumed to be temporary and will not exist when development in the Box Hill Structure Plan Area starts. No separation distance is applicable.
- Bakeries (multiple) – All the bakeries identified in the Box Hill neighbourhood are small-scale businesses operating in commercial or retail areas (rather than industrial-sized facilities). Using the approach defined in Section 2.4 for bakeries of this nature, no separation distance is applicable.

Within 1-kilometre radius of Structure Plan Area:

- Sorbent Paper Company Pty Ltd – this facility is also relevant to the Burwood Study Area. See Section 6.5 for discussion. A default 500-metre separation distance is applicable and no further assessment has been carried out because this distance does not encroach into the Structure Plan Area.
- Laing O'Rourke Australia Construction Pty Ltd (LXRP) – as above, this is associated with construction works for the Level Crossing Removal Project and will not exist when development in the Box Hill Structure Plan Area starts. No separation distance is applicable.
- Princes Laundry Services Pty Ltd – this business is listed on the NPI and is a commercial laundry service for the healthcare and hospitality industries. An online promotional video about the business (<https://www.youtube.com/watch?v=ayVPIUPheWk>) shows the main activities conducted at the site are sorting, washing, drying, ironing and folding of bed linen and towels. The risk of odour emissions from this type of operation is likely to be very low, and no separation distance is applicable.
- Mardrew Pty Ltd (Box Hill Towing) – the EPA Victoria registration of this business relates to storing waste on-site which is generated elsewhere. Its registration statutory document states it accepts 'end-of-life vehicles'. The business does not hold a permission to store waste tyres. Using the approach defined in Section 2.4 for businesses engaging in vehicle repairs or wrecking, no separation distance is applicable.
- Non Toxic Paint – this business produces paint, which requires a 500-metre default separation distance under the Separation Distance Guideline. This business would be required to hold a permission from EPA Victoria under category G01 (Chemical Works) in Schedule 1 of the Environment Protection Regulations if the production capacity exceeded 2000 tonnes per year of chemical products. The default separation distance is only applicable if the business' production capacity exceeded 2000 tonnes per year of paint or ink. Since this business does not hold a permission, it follows that the production threshold for the separation distance is not being exceeded, so no separation distance is applicable.

- Acron Plastics Pty Ltd – this business falls under the ‘plastics manufacture or recycling’ category of the Separation Distance Guideline, for which a default 200-metre separation distance is applicable. This business would be required to hold a permission from EPA Victoria under category G01 (Chemical Works) in Schedule 1 of the Environment Protection Regulations if the production capacity exceeded 2000 tonnes per year of chemical products. The default separation distance is only applicable if the business’ production capacity exceeded 2000 tonnes per year of plastics. Since this business does not hold a permission, it follows that the production threshold for the separation distance is not being exceeded, so no separation distance is applicable.

Table 6.6 summarises the applicable separation distances in the Study Area. Any activities classified as ‘temporary’ by grey shading in Table 5.6 or by description in the assessment above are not included. Figure 6.5 shows the location and extent of any applicable separation distances in the Study Area.

In summary, there are no businesses or facilities in the Study Area with applicable separation distances that encroach into the Box Hill Structure Plan Area. In addition, no risk of cumulative effects from two or more industries is identified.

TABLE 6.6 SEPARATION DISTANCES FOR ODOUR AND DUST – BOX HILL STUDY AREA

BUSINESS / FACILITY NAME	OPERATIONS	IS A DEFAULT SEPARATION DISTANCE APPLICABLE FROM THE SEPARATION DISTANCE GUIDELINE?	SUMMARY OF ASSESSMENT
Within Structure Plan Area			
Box Hill Hospital	Health Care Facility	No	No separation distance applicable
Bob Jane Corporation Pty Ltd	Tyre, wheel and car battery retailer	No	No separation distance applicable
Within 1-kilometre radius of Structure Plan Area			
Sorbent Paper Company Pty Ltd (this business is also in the Burwood Study Area)	Manufacturer of paper tissue products	Yes – 500 m	The separation distance does not encroach into the Structure Plan Area.
Princes Laundry Services Pty Ltd	Laundering and ironing hospital linen	No	No separation distance applicable
Mardrew Pty Ltd	Towing services	No	No separation distance applicable
Non Toxic Paint	Paint production	Yes, if production threshold trigger exceeded	Unlikely to exceed the prescribed activity threshold so would not trigger the separation distance requirement.
Acron Plastics Pty Ltd	Plastic packaging, moulding and thermoforming production	Yes, if production threshold trigger exceeded	Unlikely to exceed the prescribed activity threshold so would not trigger the separation distance requirement.

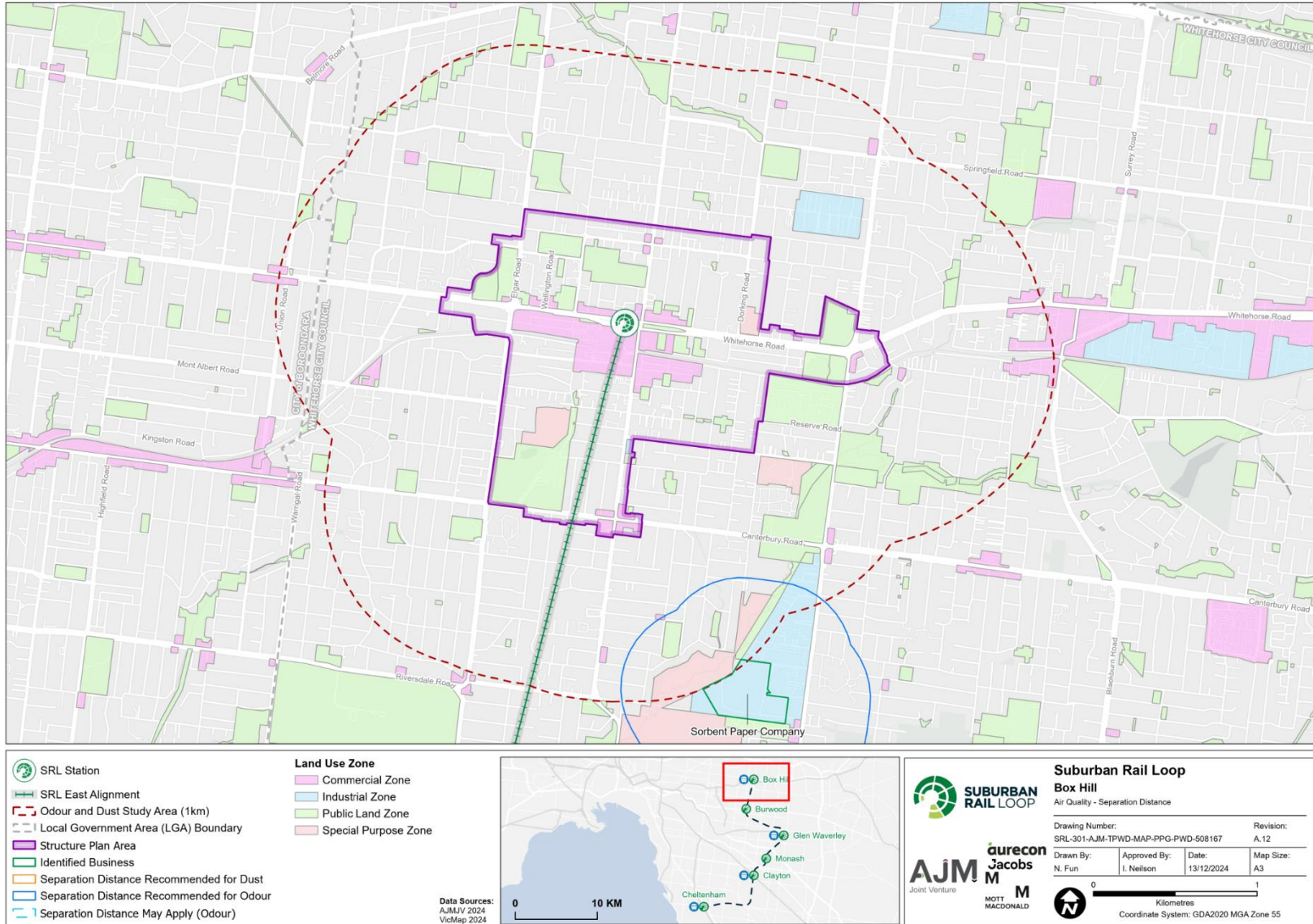


FIGURE 6.5 BOX HILL STUDY AREA SEPARATION DISTANCES

7 Recommendations

This section makes recommendations to consider when developing the Structure Plans for each SRL East neighbourhood.

7.1 Cheltenham Structure Plan Area

There are three businesses with applicable separation distances that overlap with the boundary of the Cheltenham Structure Plan Area: Ecolab, Future Recycling, and Ideal Drum Co.

Site-specific recommendations for each of these businesses are provided as follows:

1. **Ecolab.** The odour risk assessment for Ecolab in Appendix A concludes there is a low risk of nuisance odour from Ecolab beyond the site boundary. The risk of odour emissions is very low, to the extent that a separation distance is not necessary due to the lack of potential odour sources. However, given the size of the site and the fact that chemical scrubbers are used on the site which means there is always a risk, albeit very small, that chemical odours might be detected at the site boundary, it is considered that a small separation distance to residential land uses is appropriate. Given there are already sensitive (residential) land uses 65 metres from the site boundary, it is recommended that this separation distance be applied around the full site boundary for residential land uses.
2. **Future Recycling.** The dust risk assessment conducted for this site in Appendix B concluded there is a medium dust risk within the default 250-metre separation distance, indicating that dust impacts are likely. Some nuisance dust can be expected to occur and without careful and considered application of mitigation measures it is likely to cause impacts. Approaches to minimise the risk of nuisance dust could include the following:
 - a. Source (Future Recycling):
 - i. Introduce further mitigation measures to the Future Recycling site such as enclosure of potentially dusty activities in a building, additional non-porous fencing and walls for sheltering from wind, and further use of water sprays or misting cannons for dust suppression.
 - b. Pathway:
 - i. Consider whether less sensitive land uses could be used as a buffer between land uses that could be sensitive to dust and Future Recycling. The Separation Distance Guideline encourages the development of land uses with minimal sensitivity to dust (and odour) within a separation distance, and gives the examples of agriculture, car parks, emergency services facilities, natural systems, service stations, garden supplies, plant nurseries, and veterinary centres. The Guideline also recommends other land uses with potential sensitivity to dust (and odour) that could be considered subject to dust/odour risk assessment, including utilities (except for sewage works), offices, research centres, retail premises, informal outdoor recreation. It is assumed that each industry is applying GED to their sites and that any urban design applied to land uses in these buffers will need to mitigate potential impacts as far as possible as well.
 - ii. Green space land uses could be considered, particularly where these are designed for informal outdoor recreation. However, green space may represent a sensitive land use depending on the potential uses of the green space. The risk profile for amenity impacts on users of green space is different to that for residential land uses, due to the shorter duration of exposure (and people can usually choose to move away from the odour/dust) and limited night-time occupation of

green spaces. Therefore, the provision of green space land uses within the separation distance would need to be assessed for potential amenity impacts on a case-by-case basis.

- iii. Introduce dust mitigation measures such as solid walls at the boundary between the Future Recycling and the sensitive land uses or on the adjoining land, to help to trap dust and impede dispersion of the dust particles.
- c. Receptors:
- i. Apply building design and other controls if any sensitive uses are proposed within the 250-metre separation distance of Future Recycling to further reduce dust risks, such as designing apartment or office buildings with elevated ventilation air intakes and entries facing away from the facility, and incorporating air filtration technology from common air intake points.
3. **Ideal Drum Co.** This business has a default 500-metre separation distance. Potentially, development of sensitive land uses within this separation distance may be constrained or source-pathway-receptor mitigations needed similarly to those recommended for Future Recycling.

The default separation distances for these businesses mostly focus on the south-west portion of the Cheltenham Structure Plan Area. If intensification of sensitive land uses is proposed in that part of the Structure Plan Area, field odour surveying may be needed to conduct an overall Level 3 odour risk assessment for that area along with dust monitoring to further understand the nuisance dust risks.

7.2 Clayton Structure Plan Area

There is one business with a default separation distance that encroaches into the Clayton Structure Plan Area – PPG Industries, which has a default 500-metre separation distance under the Separation Distance Guideline. This separation distance overlaps with the Structure Plan Area boundary in a small portion of land to the south-east of the proposed Structure Plan Area, with the closest distance between the Structure Plan Area and the activity perimeter at PPG Industries being 370 metres.

The odour risk assessment for PPG Industries in Appendix A concludes there is a low risk of nuisance odour from PPG Industries at this location. Using the consequence and likelihood criteria and risk matrix in PPN92, there is a low risk of odour impacts within the small affected area of the Structure Plan Area.

Due to the low risk rating and the separation distance between PPG Industries and the Structure Plan Area boundary, it is concluded that no constraints to land use planning in the Clayton Structure Plan Area are considered necessary due to the proximity of PPG Industries.

7.3 Monash Structure Plan Area

There are three businesses with default separation distances that encroach into the Monash Structure Plan Area. These are the Monash City Council Recycling and Waste Centre (MRWC), Monash SES site, and Inglewood Coffee Roasters. Recommendations for each of these businesses are as follows:

1. **Monash City Council Recycling and Waste Centre.** The dust risk assessment in Appendix B established the MRWC facility has a medium dust risk. EPA Victoria Publication 1943 advises that in a 'medium dust risk' situation, *'you can expect some nuisance dust to occur and without careful and considered application of mitigation measures it is likely to cause impacts. The focus should be what can be done to break the source-pathway-receiving environment chain'*. Approaches to minimise the risk of nuisance dust could include the following:

- a. Source risk mitigation (at MRWC)
 - i. Propose transition of the MRWC out of the Monash Structure Plan Area, to a location with more compatible surrounding land uses; or
 - ii. Introduce further mitigation measures to the MRWC site such as enclosure of potentially dusty activities in a building, additional non-porous fencing and walls for sheltering from wind, and further use of water sprays or misting cannons for dust suppression.
 - b. Pathway risk mitigation
 - i. Consider whether less sensitive land uses could be used as a buffer between land uses that could be sensitive to dust and the MRWC. See the discussion above in Section 7.1 for Future Recycling about recommendations for suitable interface land uses within separation distances.
 - ii. Introduce dust mitigation measures such as solid walls at the boundary between the MRWC and sensitive land uses or on the adjoining land, to help to trap dust and impede dispersion of the dust particles.
 - c. Receptor risk mitigation
 - i. Apply building design and other controls if any sensitive uses are proposed within the 250-metre separation distance of MRWC to further reduce dust risks, such as designing apartment or office buildings with elevated ventilation air intakes and entries facing away from the facility, and incorporating air filtration technology from common air intake points.
2. **Monash SES site.** The dust risk assessment in Appendix B for the Monash State Emergency Services (SES) stockpile concluded the facility has low dust risk, but it is recommended the existing solid walls between the southern boundary of the site and adjacent land uses are retained. Land use planning in areas within the separation distance for the Monash SES site is more likely to be constrained by the MRWC which is close by, as discussed in the preceding paragraph, and the recommendations for MRWC also apply to the Monash SES site.
3. **Inglewood Coffee Roasters.** If the production throughput for this business is sufficient to invoke a 250-metre separation distance, source-pathway-receptor mitigation measures are to be considered especially if the Structure Plan proposes to introduce more sensitive land uses on the north side of Ferntree Gully Road. Recommendations relating to the separation distance for this business are:
- a. Source risk mitigation (at Inglewood Coffee Roasters) – The extent of mitigation currently employed on the site is not known. Mitigation measures for odour emissions from coffee roasting typically involve using an afterburner to reduce odour concentrations in the stack discharge, or improving stack design to optimise the initial dilution and dispersion of exhaust gases. As this business is privately owned, any investigation of at source mitigation would need to be conducted through engagement with the business owner.
 - b. Pathway risk mitigation – Consider whether less sensitive land uses could be used as a buffer between land uses that could be sensitive to odour and the coffee roastery. Any urban design applied to land uses in these buffers will need to mitigate potential impacts as far as possible as well.
 - c. Receptor risk mitigation – Apply building design and other controls if any sensitive uses are proposed within the 250-metre separation distance of Inglewood Coffee Roasters to further reduce odour risks such as designing apartment or office buildings with elevated ventilation air

intakes and entries facing away from the business, and incorporating the potential for air filtration technology from common air intake points.

7.4 Glen Waverley Structure Plan Area

Based on available information, no odour or dust amenity impacts that might constrain land use planning in the Glen Waverley Structure Plan Area were identified.

7.5 Burwood Structure Plan Area

Based on available information, no odour or dust amenity issues that might constrain land use planning in the Burwood Structure Plan Area were identified.

7.6 Box Hill Structure Plan Area

Based on available information, no odour or dust amenity impacts that might constrain land use planning in the Box Hill Structure Plan Area were identified.

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Appendix A
**Odour risk
assessment**



Appendix A Odour risk assessment

Some industries identified in Section 6 with required separation distances had a more complex risk profile for odour.

The Separation Distance Guideline outlines factors that can be assessed to determine if reducing the required separation distance is appropriate, including environmental and site-specific factors, management practices and engineered controls. Other background information such as existing land use data and planning decisions for other similar facilities for precedents could also inform this decision.

Odour risk assessments were conducted for these industries that considered these site-specific factors. The results of the risk assessments are provided below.

A.1 Qualitative odour risk assessment methodology

OVERVIEW OF METHODOLOGIES IN EPA VICTORIA PUBLICATION 1883

The Separation Distance Guideline specifies that if there are potential land uses sensitive to odour within a default separation distance, a risk assessment guided by EPA Victoria Publication 1883: *Guidance for assessing odour* is required.

EPA Victoria Publication 1883 provides information on how to assess the risk posed by odour emission sources and to understand the receiving environment where effects might occur. It outlines three levels of assessment, depending on the scale or complexity of the scenario, noting this is not a progressive step-by-step tool but rather, sets out a range of different tools that can be used. These can be performed in sequence. If the lower levels of assessment show the activity is low risk for odour, there is no need to proceed to the higher levels of assessment. The three levels of assessment are:

- The Level 1 assessment is a 'gateway assessment' and includes tests for:
 - » Cumulative sources consideration
 - » Duration of emissions
 - » Wind direction
 - » Minor odour emission sources.
- The Level 2 assessment consists of two tools – a cumulative effects test, and the source-pathway receiving environment tool:
 - » The cumulative effects test considers the effects of multiple odour sources where there are different dispersed industry, or clusters of similar industries.
 - » The source-pathway-receiving environment tool gives guidance on determining the level of hazard posed by the odour source, the effectiveness of the exposure pathway and the sensitivity of the receiving environment. It enables the calculation of a risk score based on the source, pathway and receptor characteristics. Depending on this score and the quality of the evidence used, further steps in the risk assessment can be identified.
- The Level 3 assessment provides detailed risk assessment tools for issues that are complex or where the other levels of assessment have been exhausted because there is not enough evidence to establish what the odour risk is. Several different tools may be relevant depending on the site circumstances:
 - » Comparisons with similar operations or case studies
 - » Risk assessment using field odour surveillance data
 - » Complaint assessment
 - » Odour complaint case study
 - » Community odour surveys / questionnaires and odour diaries

- » The use of dispersion modelling.

Multiple aspects of operations at the industries identified in Section 6 warrant a more in-depth investigation than a Level 1 assessment due to the source types and proximity of potential sensitive receptors. Level 2 assessments were carried out for all the facilities in this section.

LEVEL 2 ODOUR ASSESSMENT METHODOLOGY

The Level 2 qualitative source-pathway-receiving environment tool was scored for the below industries following the procedure outlined in EPA Victoria Publication 1883, Chapter 5.

Scoring is based on three attributes following a source-pathway-receptor risk approach:

- Hazard potential of the source (odour source score – OSS)
- Exposure pathway between the source and sensitive locations (odour pathway score – OPS)
- Sensitivity of the receiving environment (odour receiving environment score – ORS).

Each attribute is separated into categories, a score of 1 to 3 is then applied to each category, except for certain high-risk odour activities where the default is 4. The overall score for each attribute is the highest score for each attribute. Weightings are also applied to the:

- OSS based on the odour controls in place
- ORS based on any relevant compliance or community history.

All the attribute scores are added together to get an overall risk score which will normally range from 1 to 12.

Based on the score, recommendations for odour risk and further assessment are indicated in EPA Victoria Publication 1883. Table A.1 shows the risk scores and recommendations listed in the guideline.

TABLE A.1 LEVEL 2 ODOUR RISK ASSESSMENT SCORES AND RECOMMENDATIONS, EPA VICTORIA PUBLICATION 1883

RISK ASSESSMENT SCORE	RECOMMENDATION
1 to 7 – low risk	The risk of odour is low.
8 or 9 – medium risk	Borderline cases – there may be one element that can influence the score and tip it into a low or high score. In these cases, this should be explored further.
10 to 11 – high risk	A level 3 assessment is recommended to fully understand risk.
12 – very high-risk	A level 3 assessment is not likely to demonstrate risk is acceptable but may provide further illustration on the nature of the risks and/or inform on odour mitigation measures.

A.2 Ecolab

Ecolab is located in the Cheltenham Structure Plan Area. The business was identified in Section 6 as having the potential for odour which may impact development in the Structure Plan Area. Its operations consist of large-scale production of chemicals for industrial use which are predominantly classified as dangerous goods class 8. The business reports emissions to the National Pollutant Inventory (NPI) of VOCs, ethanol, chlorine and various acids. As discussed in Section 6.1, a default 300-metre separation distance applies to this industry.

A Level 2 odour risk assessment guided by EPA Victoria Publication 1883 for Ecolab is detailed below.

A.2.1 UNDERSTANDING OF ACTIVITY

Communications between Ecolab and SRLA in April 2024 and a site visit in November 2024 established:

- The day-to-day operations at Ecolab's Cheltenham site involves producing chemicals for industrial use, with a production capacity of approximately 100 tonnes per day
- The chemicals used and manufactured at the facility are mostly alkaline- and acidic-based dangerous goods Class 8. Activities involve only blending of chemicals and no chemical reactions take place. There are no volatile odorous chemicals involved.
- The mixing vessels and filling stations are vented to acid- and base- scrubbers to remove acid and alkali aerosols, primarily for worker health and safety.
- No odours were observed during the site visit by AJM-JV staff, either in the processing halls or outside the buildings.
- Ecolab Cheltenham is open 5am to 4:30pm, Monday to Friday, and occasionally on Saturdays 6am to 12pm
- The facility has management processes and procedures in place in the event of a spill, and trade waste discharge is monitored via an agreement with South East Water and Melbourne Water. These processes serve a purpose of minimising risk of contamination of water and land, but are not required for odour management on the site.

A.2.2 CURRENT LAND USES WITHIN THE SEPARATION DISTANCE

Figure A.1 shows the location of Ecolab and the extent of a 300-metre separation distance, along with surrounding land use zones and other sensitive receptors.

A summary of the current land uses within the 300-metre separation distance is:

- Immediately to the north, east and south of Ecolab is Commercial 2 Zone. Commercial areas are designed to be mixed use centres for retail, office, business, entertainment and community uses. Depending on the specific land uses, these areas can be sensitive to odour.
- To the west of Ecolab is Public Use Zone 5, which specifically refers to cemeteries and crematoriums. This land use is not considered sensitive to odour.
- To the south-east of Ecolab is a small strip of Commercial 1 Zone land. Similarly to the Commercial 2 Zone, these areas can be sensitive to odour.
- To the south-east of Ecolab is a section of Mixed Use Zone land. This land provides for residential, commercial, industrial and other uses which complement the mixed-use function of the locality. This area has recently been developed as an intensive residential apartment complex, and is considered sensitive to odour.
- To the east of Ecolab and near the edge of separation distance is a large section of land classified and developed as General Residential Zone (Schedule 1). Residential zones are considered sensitive to odour.

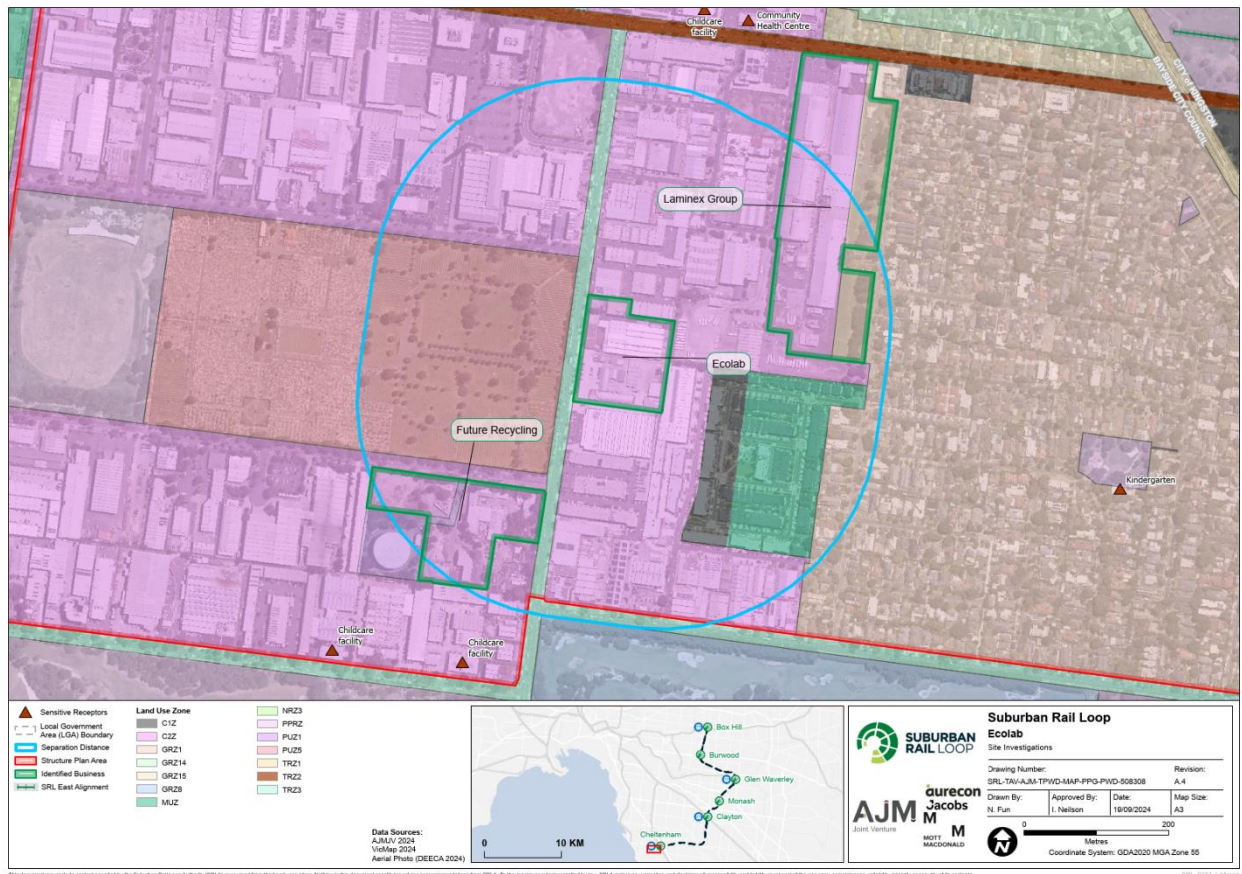


FIGURE A.1 ECOLAB WITH A 300-METRE SEPARATION DISTANCE, LAND USE ZONES AND SENSITIVE RECEPTORS

A.2.3 LEVEL 2 ODOUR ASSESSMENT RESULTS

The Level 2 odour assessment scoring for Ecolab is provided in Table A.2, based on the template provided in Appendix C of EPA Victoria Publication 1883 and considering the existing land uses around the business within the separation distance. A score of 7 is calculated, which is classified as a low risk.

TABLE A.2 LEVEL 2 ODOUR RISK ASSESSMENT – FOLLOWING APPENDIX C TEMPLATE, EPA VICTORIA PUBLICATION 1883

CATEGORY	CRITERIA	COMMENT	SCORE
Hazard potential of the source	Activity type	The activity type qualifies as 'chemical blending, mixing or storage', giving it a score of 1.	1
	Size of odour hazard	Production capacity is 100 tonnes per day, for 5 to 6 days a week, equating to 26,000 to 31,000 tonnes per year, or medium size (thousands of tonnes / m ³ per year).	2
	Offensiveness potential	Odours would be categorised as chemicals (unsafe).	3
	Level of control (weighting of -1/0/+1)	Odour controls are categorised as high – fully enclosed operations, no odour present externally, releases only due to plant failure.	-1
(Odour source score, OSS)			2
Exposure pathway between the source and sensitive locations	Distance	Sensitive locations are tens to hundreds of metres from the source.	2
	Meteorology	Neutral. See Appendix C for representative wind roses.	2

CATEGORY	CRITERIA	COMMENT	SCORE
	Terrain and built form	Neutral – Intervening land use zone contains other non-odorous industry or smaller businesses.	2
	Hours of operation	Emissions estimated as moderate frequency, restricted to operational / business hours.	2
(Odour pathway score, OPS)			2
Sensitivity of the receiving environment	Historical context weighting	No historical heightened sensitivity.	0
	Receiving environment	Business areas (immediately around Ecolab). ¹ Residential developments (65 m east of Ecolab boundary).	2 or 3
(Odour receiving environment score, ORS)			3
Total score			7
Recommendation	A score of 7 implies low risk potential.		

Note 1: For business land uses, EPA Victoria Publication 1883 describes business areas as having a medium sensitivity to odour because odour exposure 'can typically be controlled by mitigation at the receptor (incorporated health ventilation and air conditioning systems etc.)'.

A.2.4 CONCLUSION

The score of 7 was calculated from the Level 2 odour assessment, indicating a low risk potential for current land uses. Based on the site visit, the risk of odour emissions is very low, to the extent that a separation distance is not necessary due to the lack of potential odour sources. However, given the size of the site and the fact that chemical scrubbers are used on the site which means there is always a risk, albeit very small, that chemical odours might be detected at the site boundary, it is considered that a small separation distance to residential land uses is appropriate. Given there are already sensitive (residential) land uses 65 metres from the site boundary, it is recommended that this separation distance be applied around the full site boundary.

A.3 PPG Industries

PPG Industries was identified in Section 6.3 as having a default 500-metre separation distance. This separation distance slightly encroaches into the south-eastern part of the Clayton Structure Plan Area with a minimum 370-metre separation distance. The separation distance also encroaches very slightly into the southern tip of the Monash Structure Plan Area, with a minimum 450-metre separation distance.

The business's operations consist of large-scale manufacturing of industrial, automotive, architectural and refinish coatings. The business holds EPA Victoria licences for manufacturing using chemical processes at a production rate of over 2000 tonnes per year, and for storing at least 10,000 litres of specific carbon compounds or flammable substances.

A Level 2 odour risk assessment guided by EPA Victoria Publication 1883 has been carried out and is detailed below.

A.3.1 UNDERSTANDING OF ACTIVITY

Communications between PPG Industries and SRLA in May 2024 established that:

- The facility in Clayton produces solvent-borne and water-borne paint as well as resins exceeding a production capacity of 5000 tonnes per year
- The plant capacity for storage of bulk volatile odorous chemicals exceeds 1000 MT total, although at the time of the communications the stored volume was lower than this threshold
- The industrial operations at PPG Industries operate 7 days a week, 12 hours a day

- The facility has management processes and procedures in place in the event of a spill, as per the requirements of its operating licence.

A.3.2 CURRENT LAND USES WITHIN THE SEPARATION DISTANCE

Figure A-2 shows a map of PPG Industries with a 500m separation distance, along with surrounding land use zones and other sensitive receptors. A summary of the current and proposed Precinct land uses within the 500m separation distance is as follows:

- Immediately surrounding PPG Industries in all directions is an Industrial 1 Zone. None of this surrounding Planning zone is included in the Clayton Structure Plan Area.
- Beyond the IN1Z land to the west and southwest of PPG Industries is a General Residential Zone – Schedule 3 which lies within the Clayton Structure Plan Area. Residential zones are generally considered sensitive to odour.
- A small (approximately 50m x 50m) section of Commercial 2 Zone land within the Monash Structure Plan Area to the north of PPG Industries is contained within the 500-metre separation distance. Commercial areas are designed to be mixed use centres for retail, office, business, entertainment and community uses.

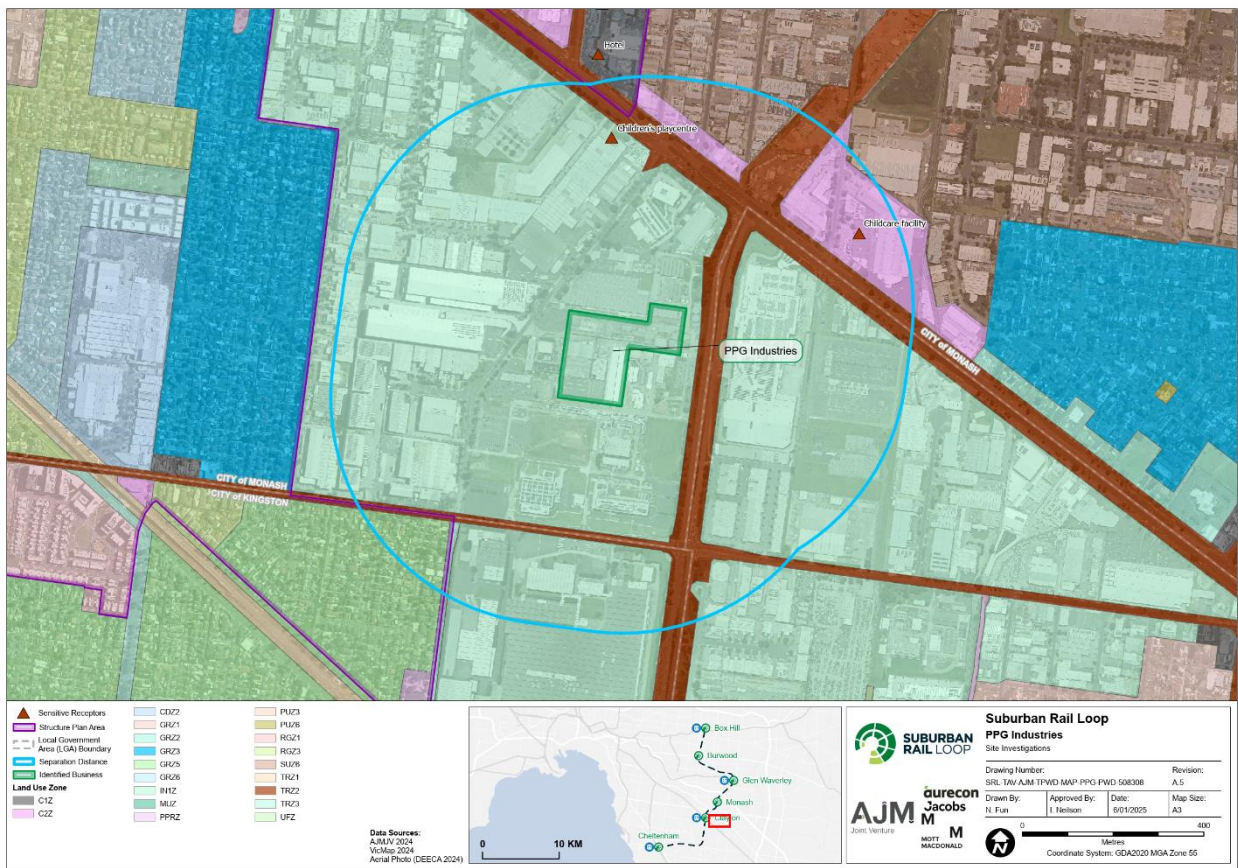


FIGURE A.2 PPG INDUSTRIES WITH A 500-METRE SEPARATION DISTANCE, LAND USE ZONES AND SENSITIVE RECEPTORS

A.3.3 LEVEL 2 ODOUR ASSESSMENT RESULTS

The Level 2 odour assessment scoring for PPG Industries are provided in Table A.3 and Table A.4, based on the template provided in Appendix C of EPA Victoria Publication 1883. In Table A.3, the odour pathway and receiving environment scores are focused on the nearest Clayton Structure Plan Area boundary, which is 370 metres to the south west from the PPG Industries activity perimeter. In Table A.4, the odour pathway

and receiving environment scores are focused on the nearest Monash Structure Plan Area boundary, which is 450 metres to the north from the PPG Industries activity perimeter.

A score of 8 is calculated for the Clayton Structure Plan Area boundary, which is classified as a borderline case where there may be one element that can influence the score and tip it into a low or high score. A score of 6 is calculated for the Monash Structure Plan Area boundary, which implies low risk potential.

TABLE A.3 LEVEL 2 ODOUR RISK ASSESSMENT – PPG INDUSTRIES 370-METRE SEPARATION DISTANCE TO CLAYTON STRUCTURE PLAN AREA BOUNDARY

CATEGORY	CRITERIA	COMMENT	SCORE
Hazard potential of the source	Activity type	The activity type could range between 'paint and ink production' with a moderate odour potential to 'chemical production' or 'manufacture of products using fibreglass or resin' with high odour potentials.	2 or 3
	Size of odour hazard	Site materials usage is thousands of tonnes / m ³ per year.	2
	Offensiveness potential	Odours could range from paint / ink (unwelcome) to chemicals (unsafe).	2 or 3
	Level of control (weighting of -1/0/+1)	The level of odour control is unknown, other than that the site uses a thermal oxidiser to treat odours discharged from the resin plant. The odour control is assumed to be 'moderate', under the description 'some mitigation measures in place, but significant residual odour remains'.	0
(Odour source score, OSS)			3
Exposure pathway between the source and sensitive locations	Distance	Current sensitive locations are hundreds of metres from the source.	1
	Meteorology	Favourable – winds rarely blow from the odour source to the nearest sensitive receptors to the south-west. See Appendix C for representative wind roses.	1
	Terrain and built form	Favourable – Highly built-up intervening zone with multiple non-sensitive uses that have no emissions of their own.	1
	Hours of operation	Emissions estimated as moderate frequency, restricted to operational / business hours.	2
(Odour pathway score, OPS)			2
Sensitivity of the receiving environment	Historical context weighting	No historical heightened sensitivity.	0
	Receiving environment	Residential land use	3
(Odour receiving environment score, ORS)			3
Total score			8
Recommendation	A score of 8 implies medium risk potential – borderline case where there may be one element that can influence the score and tip it into a low or high score.		

TABLE A.4 LEVEL 2 ODOUR RISK ASSESSMENT – PPG INDUSTRIES 450-METRE SEPARATION DISTANCE TO MONASH STRUCTURE PLAN AREA BOUNDARY

CATEGORY	CRITERIA	COMMENT	SCORE
Hazard potential of the source	Activity type	The activity type could range between 'paint and ink production' with a moderate odour potential to 'chemical production' or 'manufacture of products using fibreglass or resin' with high odour potentials.	2 or 3
	Size of odour hazard	Site materials usage is thousands of tonnes / m ³ per year.	2
	Offensiveness potential	Odours could range from paint / ink (unwelcome) to chemicals (unsafe).	2 or 3
	Level of control (weighting of -1/0/+1)	The level of odour control is unknown, other than that the site uses a thermal oxidiser to treat odours discharged from the resin plant. The odour control is assumed to be 'moderate', under the description 'some mitigation measures in place, but significant residual odour remains'.	0

CATEGORY	CRITERIA	COMMENT	SCORE
(Odour source score, OSS)			3
Exposure pathway between the source and sensitive locations	Distance	Current sensitive locations are hundreds of metres from the source.	1
	Meteorology	Favourable or neutral. See Appendix C for representative wind roses.	1 or 2
	Terrain and built form	Favourable – Highly built-up intervening zone with multiple non-sensitive uses that have no emissions of their own.	1
	Hours of operation	Emissions estimated as moderate frequency	2
(Odour pathway score, OPS)			2
Sensitivity of the receiving environment	Historical context weighting	No historical heightened sensitivity.	0
	Receiving environment	Relatively new M-City multi-storey apartment, hotel, office retail and entertainment complex, with only ground floor outdoor carparking alongside Princes Highway within the 500-metre default separation distance.	1
(Odour receiving environment score, ORS)			1
Total score			6
Recommendation	A score of 6 implies low risk potential.		

A.3.4 ANALYSIS

PPG Industries has been assessed as having medium risk potential for odour at the Clayton Structure Plan Area boundary, but a borderline case where there may be one element that can influence the score and tip it into a low or high score. This assessment was conducted under multiple conservative assumptions. The odour offensiveness potential was given a score of 3 based on the assumption that chemical odours could arise from the facility. However, the other option for this category, paint and ink odours, is much more likely given PPG's primary production of paint and the use of a thermal oxidiser to treat resin odours. This would reduce the odour source score (OSS) from 3 to 2.

The assessed total score of 8 is the same regardless of whether the sensitive receptor is tens of metres from the source, or hundreds of metres from the source. In this case, the separation distance to the nearest boundary of the Structure Plan Area is 370 metres, which provides for a considerable amount of addition dilution and dispersion of odours compared to a receptor 20-30 metres from the source. While the score of 8 implies medium risk potential, these factors combine to provide rationale to reduce the risk to a low rating. Agree

For the Monash Structure Plan area boundary, PPG Industries has been assessed as having a low risk potential. The available separation distance is 450 metres, which is not much less than the default 500-metre separation distance. In addition, whilst the land use on the property at that point on the Monash Structure Plan boundary is newly developed as the M-City multi-storey hotel, apartment, retail, entertainment and office complex, only the associated outdoor carpark alongside Princes Highway is within the 500-metre separation distance. The risk of nuisance due to odour exposure at this boundary of the Monash Structure Plan Area is considered very low and no further assessment is warranted.

A.3.5 PPN92 RISK APPROACH

The odour risk for the Clayton Structure Plan Area boundary was also assessed using the consequence and likelihood criteria in PPN92 Appendix C, which are shown in Figure A.3.

Based on the Level 2 odour risk assessment described above, the consequence and likelihood of residual odour assessed for the area overlapping between the Structure Plan Area boundary and the 500-metre separation distance for PPG Industries is minor / possible or moderate / unlikely. In either case, the overall residual risk according to the PPN92 residual risk matrix (Figure A.4) is medium.

Likelihood criteria	Highly unlikely	Unlikely	Possible	Likely	Almost certain
Descriptive (based on industry history, the nature of the specific business)	Will probably never happen in the industry	Not expected to happen/recur in the industry but it is possible	Expected to happen/recur in the industry occasionally	Expected to happen/recur in the industry regularly	Expected to happen/recur in the industry frequently

Consequence criteria	Very low	Minor	Moderate	Major	Severe
Amenity, human health and safety impacts (based on the intensity, duration and character of unintended off-site impacts such as odour, dust, noise and landfill gas)	Does not disrupt normal activities associated with sensitive land uses Examples: Odour that is not very noticeable or doesn't last very long Dust that is hardly noticeable	Annoying when occurs, but unlikely to disrupt normal activities associated with sensitive land uses Examples: Odour that is sometimes noticeable but does not stop you undertaking normal activities Dust that is sometimes noticeable but doesn't cause damage or irritation	Moderate disruption to normal activities associated with sensitive land uses and some concern Examples: Odour that is not intrinsically nauseating or unsafe, but it is clearly noticeable, and you don't get used to it Dust that is noticeable and sometimes results in deposits to outdoor furniture and vehicles	Notable disruption to normal activities associated with sensitive land uses and great concern Examples: Odour that is very noticeable, penetrates inside the house and you can't carry out activities outside the home Dust that is noticeable and results in needing to clean outdoor furniture regularly and some damage to vehicles	Ongoing disruption to normal activities associated with sensitive land uses or potential for serious harm including loss of life Examples: Odour that is extremely noticeable and causes people to experience physical symptoms and emotional distress Widespread deposit of dust over property and damage to property. Results in reduced visibility, coughing, sneezing, stinging eyes.

FIGURE A.3 PPN92 CONSEQUENCE AND LIKELIHOOD CRITERIA

Operations with a high, very high or extreme level of residual risk, shown within the **red line**, are likely to be suitable for application of the BAO.

Operations with a medium level of residual risk based on unlikely, but moderate or major consequences, shown within the **dashed red line**, may be considered suitable for application of the BAO.

Consequence					
Severe	High	High	Very high	Very high	Extreme
Major	Medium	Medium	High	Very high	Very high
Moderate	Medium	Medium	High	High	High
Minor	Low	Low	Medium	Medium	Medium
Very Low	Very low	Low	Low	Low	Medium
Likelihood	Highly unlikely	Unlikely	Possible	Likely	Almost certain

FIGURE A.4 PPN92 RESIDUAL RISK MATRIX

A.3.6 CONCLUSION

A 500-metre default separation distance is applicable for this business in the Separation Distance Guideline. The separation distance to the nearest Clayton Structure Plan Area boundary is 370 metres. The risk of odour nuisance occurring at this distance is assessed to be low using the EPA Victoria risk assessment approach in EPA Victoria Publication 1883, and medium using the planning approach in PPN92. Whilst the ‘medium’ rating using the PPN92 approach places the assessment within the dashed red line in Figure A.4, the application of a BAO is not considered appropriate because of the low risk rating using the EPA Victoria Publication 1883 approach, and a qualitative consideration of the combined likely frequency, intensity, duration, and character of the odour (Step One of the ‘Eligibility’ considerations PPN92).

Given the odour risk assessments, the available separation distance, and the small area of land affected by the overlap between the 500-metre default separation distance and the Clayton Structure Plan Area boundary, no land use development controls are recommended for the affected area.

Similarly, the separation distance to the nearest Monash Structure Plan Area boundary is 450 metres. However, only outdoor carparking activities associated with the new M-City mixed-use complex are within the default 500-metre separation distance. The risk of nuisance odour exposure is considered to be very low, and no land use development controls are recommended for the affected area.

A.4 Inglewood Coffee Roastery

Inglewood Coffee Roasters was identified in Section 6.3 as having a potential 250-metre separation distance. This separation distance encroaches into the northern part of the Monash Structure Plan Area, as shown in Figure A.5, which includes the 250-metre separation distance, surrounding land zoning, and sensitive receptors.

Immediately surrounding Inglewood Coffee Roastery in all directions and forming the entirety of Structure Plan Area land within the potential 250-metre separation distance (apart from transport zoning) is Special Use Zone – Schedule 6, specifically titled the Monash Technology Precinct in Clause 22.02 of the Monash Planning Scheme (Monash City Council, March 2017 amendment). The Monash Technology Precinct is described as ‘a key strategic location for high technology, research and development industries’, which could include businesses that are sensitive to odour. Specifically, the Monash Planning Scheme includes office development and ‘suitably located residential hotels’ as encouraged activities in the Monash Technology Precinct. This area is therefore considered potentially sensitive to odour, although coffee odours are typically not a sensitivity for commercial land uses and short-term residential uses.

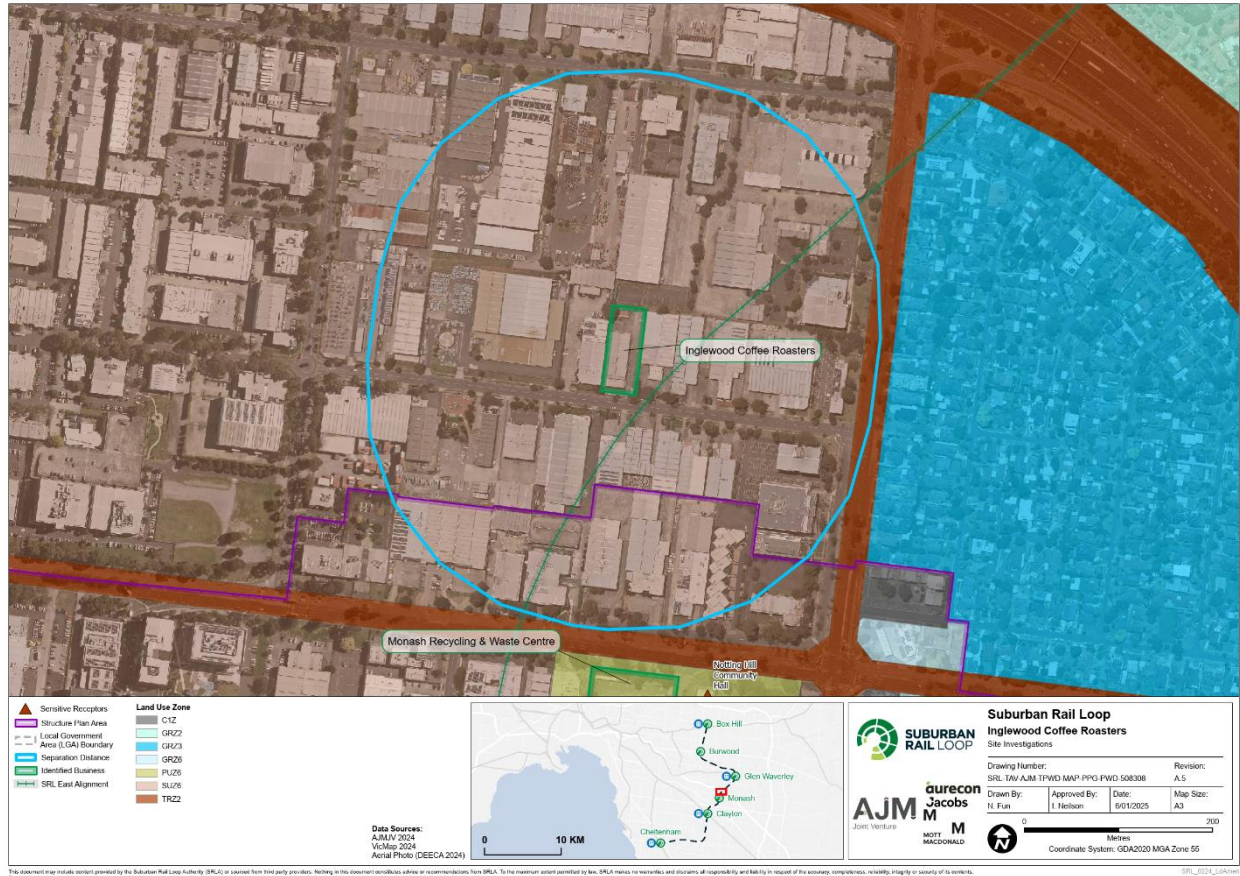


FIGURE A.5 INGLEWOOD COFFEE ROASTERY WITH A 250-METRE SEPARATION DISTANCE, LAND USE ZONES AND SENSITIVE RECEPTORS

The business’s operations consist of coffee roasting, production and wholesale. The Separation Distance Guideline recommends a default 250-metre separation distance between this kind of industry and sensitive land uses when the industry production threshold exceeds 200 tonnes per year. It is unclear if this threshold is being exceeded. Regardless, a Level 2 odour risk assessment guided by EPA Victoria Publication 1883 has been carried out and is detailed below.

TABLE A.5 LEVEL 2 ODOUR RISK ASSESSMENT – FOLLOWING APPENDIX C TEMPLATE, EPA VICTORIA PUBLICATION 1883

CATEGORY	CRITERIA	COMMENT	SCORE
Hazard potential of the source	Activity type	The activity type is coffee roasting	1
	Size of odour hazard	Site materials usage is assumed to be hundreds of tonnes / m ³ per year.	1
	Offensiveness potential	Most people would not be bothered by coffee roasting odour	1

CATEGORY	CRITERIA	COMMENT	SCORE
	Level of control (weighting of -1/0/+1)	The level of odour control is unknown, but emissions from a roasting machine are usually dispersed through a stack.	0
(Odour source score, OSS)			1
Exposure pathway between the source and sensitive locations	Distance	Sensitive locations are tens to hundreds of metres from the source.	2
	Meteorology	Neutral – even distribution of winds from source to receiving environment.	2
	Terrain and built form	Neutral – intervening land use zone contains other non-odorous industry or smaller businesses	2
	Hours of operation	This is not known, assumed to be normal business hours. Emissions from a roastery are normally not continuous.	2
(Odour pathway score, OPS)			2
Sensitivity of the receiving environment	Historical context weighting	No historical heightened sensitivity.	0
	Receiving environment	Business areas within the 250-m default separation distance. This weighting would increase to 3 if new sensitive land uses were developed in the Structure Plan Area within this separation distance.	2 or 3
(Odour receiving environment score, ORS)			2 or 3
Total score			5 or 6
Recommendation	A score of 5 or 6 implies the risk of odour is low.		

Note 1: For business land uses, EPA Victoria Publication 1883 describes business areas as having a medium sensitivity to odour because odour exposure 'can typically be controlled by mitigation at the receptor (incorporated health ventilation and air conditioning systems etc.)'.

From Table A.5 the odour risk for Inglewood Coffee Roasters has been determined to be low. This assessment considered current (business) and future (potential residential) land uses within the separation distance. Intensification of land use and increased land use sensitivity within this business's potential 250-metre separation distance would not increase the odour risk beyond a 'low' rating, although sensitivity to coffee odours is highly specific.



Appendix B
**Dust risk
assessment**

Appendix B Dust risk assessment

Some industries with separation distances identified had a more complex risk profile for dust.

The Separation Distance Guideline outlines a range of factors that can be assessed to determine if it is appropriate to reduce the default separation distance, including environmental and site-specific factors, management practices and engineered controls. Additionally, other background information such as existing land use data and planning decisions for other similar facilities for precedents could also inform this decision.

For these industries a dust risk assessment was conducted considering all these site-specific factors, and this section provides the results of these assessments. A dust risk assessment was conducted for these industries, considering all these site-specific factors. The results of the assessments are provided below.

B.1 Qualitative dust risk assessment methodology

The Separation Distance Guideline specifies if there are potential land uses sensitive to dust within the default separation distance, a risk assessment guided by EPA Victoria Publication 1943 – *Guidance for assessing nuisance dust* is required.

EPA Victoria Publication 1943 provides information on how to assess the risk posed by dust emission sources and to understand the receiving environment where effects might occur. The outcomes of the risk assessment are centred around categorising the likelihood of dust impacts occurring, and are designed to inform land use planning and highlight the extent to which dust mitigation measures are required.

The risk assessment consists of four steps:

- Step 1: Determine the hazard potential of the source. Key considerations include the size of the source, type of emission, and level of control over dust emissions. Depending on these factors a score of 1 to 3 is assigned.
- Step 2: Determine the effectiveness of the exposure pathway between the source and receiving environment. Key considerations include distance, meteorology, terrain, and intervening land use. Depending on these factors a score of 1 to 3 is assigned.
- Step 3: Determine the sensitivity of the receiving environment at the receptor. Key considerations include the sensitivity of the receptor (existing receptors and/or proposed land uses) and historical context. Depending on these factors a score of 2 to 6 is assigned.
- Step 4: Determine the overall risk of nuisance dust impacts occurring based on the risk of the exposure and the sensitivity of the receiving environment.

All the scores from each category are added together to get an overall risk score which will normally range from 12 to 36.

Based on the score, EPA Victoria Publication 1943 provides an indication of the risks of nuisance dust from the source to the receiving environment. Table B.1 shows the risk scores and recommendations listed in EPA Victoria Publication 1943.

TABLE B.1 DUST RISK ASSESSMENT SCORES AND RECOMMENDATIONS, PUBLICATION 1943

SCORE	DESCRIPTOR	COMMENT
12 to 16	Low	Dust impacts are not likely
17 to 21	Moderate	Dust impacts only likely to occur on rare occasions
22 to 26	Medium	Dust impacts likely
27 to 31	High	Dust impacts highly likely to occur
32 to 36	Very high	Dust impacts almost certain

B.2 Future Recycling waste and recycling centre

The Future Recycling waste and recycling centre is located in the Cheltenham Structure Plan Area. The facility was identified in Section 6 as a site with the potential for dust which may have a default separation distance that conflicts with proposed development in the Structure Plan Area.

The Separation Distance Guideline contains a category for transfer stations, specifically facilities which are 'collecting, consolidating, temporarily storing, sorting or recovering refuse materials before transfer for disposal or use elsewhere'. The policy recommends a 250-metre default separation distance between these industries and sensitive or competing land use developments.

The dust risks for transfer stations can vary widely based on waste types and volumes along with any mitigation measures in place. If the dust risk is considered low based on these factors (and others), the default 250-metre separation distance may be able to be reduced.

B.2.1 ACTIVITY ASSUMPTIONS

A site visit to Future Recycling has not been carried out. However, activities at the site were observed during a road-side inspection in February 2024.

Based on these observations, this dust risk assessment was conducted under the following assumptions:

- Most of the waste stream accepted by the transfer station is construction and industrial waste, including concrete, timber, bricks and general rubbish. Other waste streams include green waste and small amounts of general (domestic) waste.
- Future Recycling is open from 8am to 4pm, 6 days a week for receiving waste, during which time operators are on-site, and is closed on Sundays.
- There is some potential for dust emissions, from handling of incoming or stockpiled wastes such as concrete, from vehicle movements on unsealed surfaces, and from open areas of the site exposed to wind.

B.2.2 CURRENT AND POTENTIAL (STRUCTURE PLAN) LAND USES WITHIN THE SEPARATION DISTANCE

Figure B.1 shows the location of a map of Future Recycling and the extent of a 250-metre separation distance, along with surrounding land use zones and other sensitive receptors.

A summary of the current land uses within the 250-metre separation distance is:

- Immediately surrounding Future Recycling to the east, south and west is Commercial 2 Zone. Commercial areas are designed to be mixed use centres for retail, office, business, entertainment and community uses. This area is therefore considered potentially sensitive to dust. As shown on Figure B.1, two childcare facilities are located to the south of the Future Recycling site, which would be considered sensitive to dust emissions.

- The next largest proportion of land use within the 250-metre separation distance surrounding Future Recycling is a Public Use Zone to the north of the facility reserved for Cheltenham Memorial Cemetery. This area is not considered sensitive to dust.
- The only other land use in the Structure Plan Area is a small strip of Commercial 1 Zone to the east of Future Recycling. Commercial areas are designed to be mixed use centres for retail, office, business, entertainment and community uses. This area is therefore considered potentially sensitive to dust.

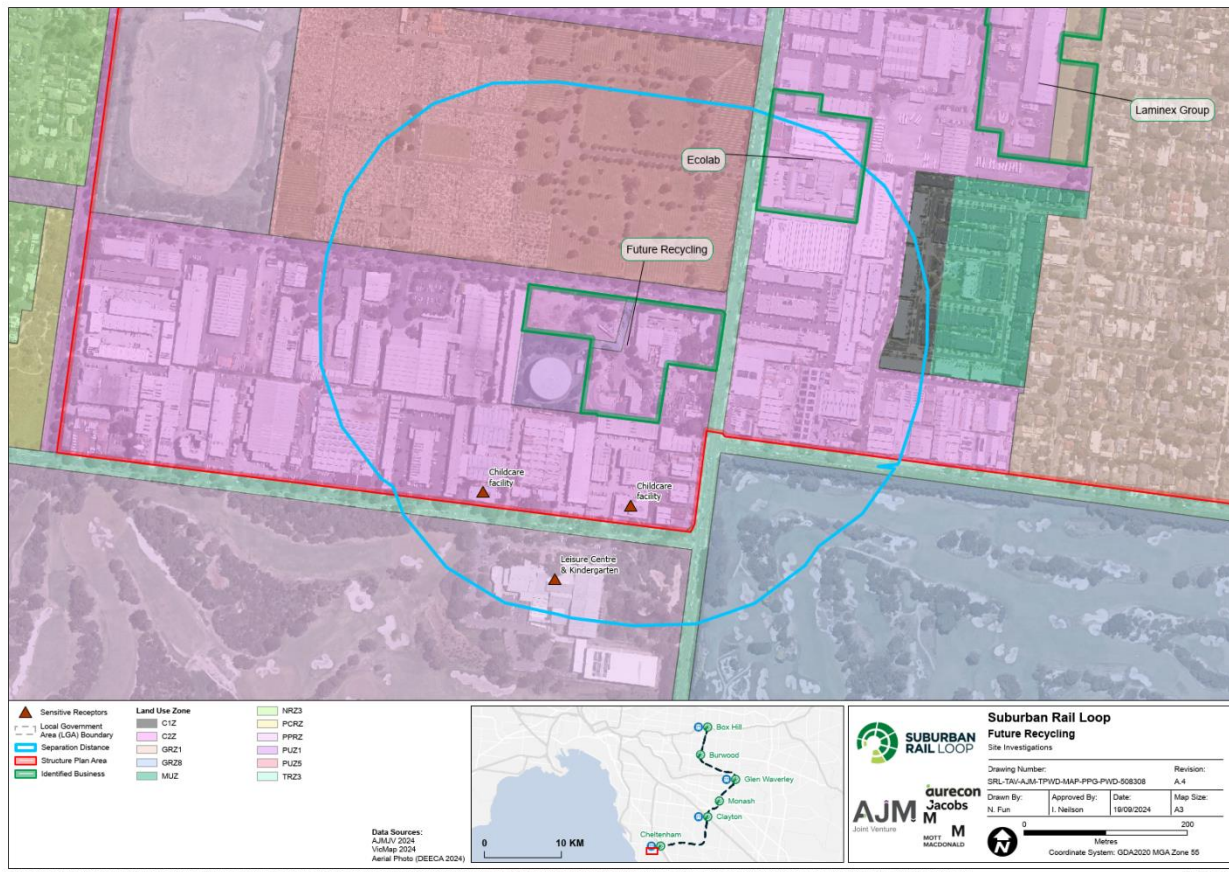


FIGURE B.1 FUTURE RECYCLING WITH 250-METRE SEPARATION DISTANCE, LAND USE ZONES AND SENSITIVE RECEPTORS

B.2.3 DUST RISK ASSESSMENT RESULTS

The dust risk scoring for Future Recycling is provided in Table B.2, based on the template provided in Appendix A of EPA Victoria Publication 1943. A score of 25 or 27 is calculated, which is classified as medium risk, indicating that dust impacts are likely.

TABLE B.2 DUST RISK ASSESSMENT – FOLLOWING APPENDIX A TEMPLATE, EPA VICTORIA PUBLICATION 1943

CATEGORY	CRITERIA	COMMENT	SCORE
Hazard potential of the source	Size of dust emitting source	Unknown. Largest weighing score assumed.	3
	Activities being undertaken	High potential for dust emissions – material handling in open air, screening.	3
	Type of dust emission	Intermediate – crushed rock, builders’ sands, find stone, aggregates.	2

CATEGORY	CRITERIA	COMMENT	SCORE
	Level of control	Partial control or containment – some areas of the site are controlled or sealed but there are areas not addressed. Reliance on management and housekeeping.	2
Comments on overall hazard potential of the source	The source hazard potential is reasonably high due to its large throughput of construction waste and its open air layout.		
Effectiveness of exposure pathway	Distance	Intermediate – receptors are tens or hundreds of metres from source, and separation distance has not been met.	2
	Prevailing wind direction	High frequency of winds from source to receptors, and/or source is upwind, winds are of high speed (applicable for existing sensitive land uses; that is, childcare centres).	3
	Terrain	Intermediate – source is on same altitude as receiving environment, generally flat land.	2
	Intervening land use	Moderate – moderate vegetation and intervening land use zone contains other non-sensitive industry or smaller businesses.	2
Comments on overall effectiveness of pathway			
Sensitivity of the receiving environment	Land uses / receptors	At least – moderate general expectation of amenity – enjoyment of the outdoors, recreational activities, playing sport, offices, warehouses and industrial units. Could also be a 6 weighting – high general expectation of amenity.	4 or 6
	Historical context	No known previous history. Engagement with business would be needed to confirm this.	2
Comments on overall sensitivity of receiving environment			
Total score			25 or 27
Overall risk of dust impacts occurring	Medium risk – indicates some nuisance dust can be expected to occur and without careful and considered application of mitigation measures it is likely to cause impacts. The focus should be on what can be done to break the source-pathway-receiving environment chain. Could also tip into high risk category, indicating that significant dust nuisance could occur, particularly if new sensitive land uses were introduced.		

B.2.4 ANALYSIS AND CONCLUSION

The outcome of the dust risk assessment for Future Recycling identifies the facility has at least a medium dust risk, indicating that dust impacts are likely. Some nuisance dust can be expected to occur, and without careful and considered application of mitigation measures it is likely to cause impacts. It is also possible the dust risk outcome could be borderline with a high risk, subject to confirmation of site-specific factors.

B.3 Monash Recycling and Waste Centre

The Monash Recycling and Waste Centre (MRWC) is located in the Monash Structure Plan Area. The facility was identified in Section 6 as a site with the potential for dust which may have a default separation distance that impacts development in the Structure Plan Area.

The Separation Distance Guideline contains a category for transfer stations accepting municipal kerbside organics and/or putrescible waste, specifically facilities which are 'collecting, consolidating, temporarily storing, sorting or recovering refuse materials before transfer for disposal or use elsewhere'. The policy

applies a 250-metre default separation distance between these industries and sensitive or competing land use developments.

The dust risks for transfer stations can vary widely based on waste types and volumes along with any mitigation measures in place. If the dust risk is considered low based on these factors (and others), the default 250-metre separation distance may be reduced.

B.3.1 UNDERSTANDING OF ACTIVITY

A site visit including direct consultation with the Monash City Council was undertaken on 28 November 2023. This site visit established that:

- Most of the waste stream accepted by the transfer station is construction and industrial waste, including concrete, timber, bricks and general rubbish. Other waste streams include green waste and small amounts of general (domestic) waste.
- The MRWC is open 7:30am to 3pm, 7 days a week for receiving waste, and operators are on-site from 6am to 4pm, 7 days a week.
- There is some potential for dust emissions, since substances like concrete are dumped in open-air spaces. However, there are dust reduction methods in place such as hosing down of stockpiles that are creating visible dust, and yard / road sweeping.
- There are no available complaints for dust regarding the MRWC.
- No air quality management plan was available for the site.

The activity description was compared to the range of transfer station activities that could be encompassed under the 'transfer station' category in the Separation Distance Guideline. The following features of the MRWC relevant to the potential for dust emissions are noted:

- The site employs some of the dust mitigation techniques mentioned in Sustainability Victoria 'Guide to better practice for resource recovery centres' and USEPA 'Waste Transfer Stations: A Manual for Decision-Making', including:
 - » Sweep up litter and other materials where practical
 - » Using dust suppressants (such as water spray).

B.3.2 CURRENT AND POTENTIAL LAND USES WITHIN THE SEPARATION DISTANCE

Figure B.2 shows the location of the MRWC and the extent of a 250-metre separation distance, along with surrounding land use zones and other sensitive receptors.

A summary of the current and potential land uses within the 250-metre separation distance is:

- Immediately surrounding the MRWC to the north, south and west and forming the majority of Structure Plan Area land within the potential 250-metre separation distance is Special Use Zone – Schedule 6, specifically titled the Monash Technology Precinct in Clause 22.02 of the Monash Planning Scheme (Monash City Council, March 2017 amendment). The Monash Technology Precinct is described as 'a key strategic location for high technology, research and development industries', which could include businesses that are sensitive to dust. Specifically, the Monash Planning Scheme includes office development and 'suitably located residential hotels' as encouraged activities in the Monash Technology Precinct. This area is therefore considered sensitive to dust.
- The next largest proportion of land use within the MRWC 250-metre separation distance is an area to the east of Blackburn Road designated as a General Residential Zone – Schedule 6: Monash National Employment and Innovation Cluster and Clayton Activity Centre. This zone is currently developed with residential dwellings. Residential zones are generally considered sensitive to nuisance dust.
- There are two smaller zones within the MRWC 250-metre separation distance with differing land uses, addressed briefly below:

- » General Residential Zone – Schedule 3. As above, residential zones are generally considered sensitive to dust.
- » Commercial 1 Zone: these areas are designed to be mixed use commercial centres for retail, office, business, entertainment and community uses. These land uses are typically considered as sensitive to dust, although dust risks can be partly mitigated through building layout and ventilation design.

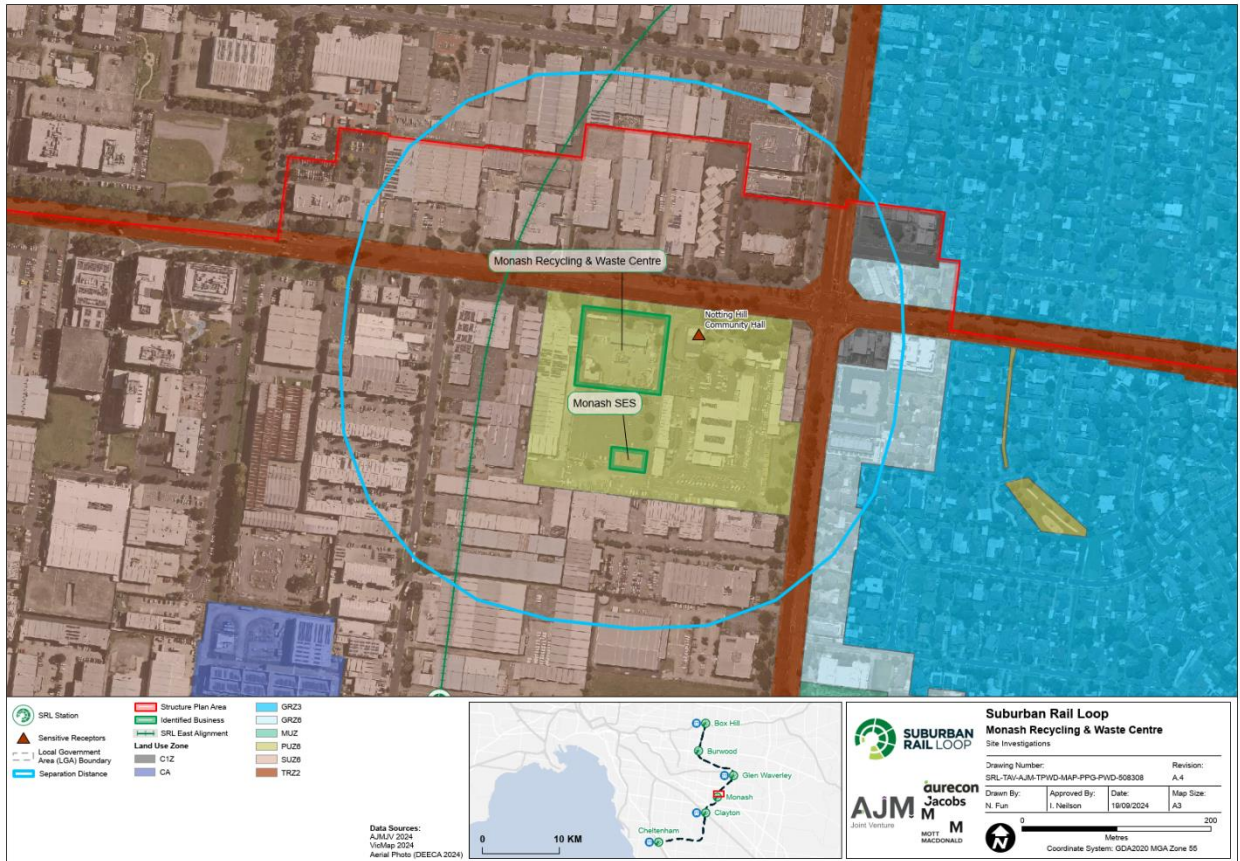


FIGURE B.2 MRWC WITH 250-METRE SEPARATION DISTANCE, LAND USE ZONES AND SENSITIVE RECEPTORS

B.3.3 DUST RISK ASSESSMENT RESULTS

The scoring for the MRWC is provided in Table B.3 based on the template provided in Appendix A of EPA Victoria Publication 1943. A score of 23 to 26 is calculated, which is classified as medium risk, indicating dust impacts are likely. However, this likelihood will be highly dependent on the dustiness of loads received at the MRWC.

TABLE B.3 DUST RISK ASSESSMENT – FOLLOWING APPENDIX A TEMPLATE, EPA VICTORIA PUBLICATION 1943

CATEGORY	CRITERIA	COMMENT	SCORE
Hazard potential of the source	Size of dust emitting source	Every 2 hours a 30 m ³ skip is emptied, which would equate to approximately four skips per day. The site receives approximate 124 x 30 = 36120 m ³ of general waste per day, and ~3 44,000 million m ³ per year. However, only a small portion of this waste is potentially dusty.	2

CATEGORY	CRITERIA	COMMENT	SCORE
	Activities being undertaken	High potential for dust emissions – Material is handling in open air, and screening is carried out on the site. This could have a score of 3. However, only a small portion of this waste is potentially dusty and so the potential for dust emissions is considered 'moderate' rather than 'high'.	2
	Type of dust emission	Intermediate – crushed rock, builders' sands, find stone, aggregates.	2
	Level of control	Partial control or containment – some areas of the site are controlled or sealed but there are areas not addressed. Reliance on management and housekeeping.	2
Comments on overall hazard potential of the source	The source hazard potential is reasonably moderate due to its the large throughput of construction and demolition waste and its open air layout.		
Effectiveness of exposure pathway	Distance	Intermediate – receptors are tens or hundreds of metres from source, and separation distance has not been met.	2
	Prevailing wind direction	Favourable for existing land uses – winds rarely blow from the dust source to the nearest sensitive receptors to the east and south-east. This score would increase to 3 for sensitive land uses proposed south and south-west of the MRWC in the Structure Plan Area due to being downwind under prevailing higher wind speeds.	1 or 3
	Terrain	Intermediate – source is on same altitude as receiving environment, generally flat land.	2
	Intervening land use	Moderate for existing land uses – intervening land use zone contains other non-sensitive industry or smaller businesses. This score would potentially increase to 3 for sensitive land uses proposed near the MRWC in the Structure Plan Area.	2 or 3
Comments on overall effectiveness of pathway	The exposure pathway has moderate risks. These risks could increase if – noting that any potential sensitive land uses developments are proposed within the unlikely to encroach into the 250-m separation distance of the MRWC.		
Sensitivity of the receiving environment	Land uses / receptors	High general expectation of amenity – residential properties with backyards and open living areas, accommodation, carparks associated with workplace or residential parking.	6
	Historical context	No previous history.	2
Comments on overall sensitivity of receiving environment	While the receiving environment within the 250-m separation distance contains residences and carparks, there have been no complaints about the MRWC..		
Total score			23 (existing) 26 (with Structure Plan)
Overall risk of dust impacts occurring	Medium risk for existing and with structure planning in place. – indicates some nuisance dust can be expected to occur and without careful and considered application of mitigation measures it is likely to cause impacts. The focus should be on what can be done to break the source-pathway-receiving environment chain.		

B.3.4 ANALYSIS AND CONCLUSION

The outcome of the dust risk assessment established for the MRWC was the facility has a medium dust risk, indicating that dust impacts are likely. This risk assessment was conducted with the existing as well as potential future land uses in mind, as per the guidance in EPA Victoria Publication 1943.

B.4 Monash State Emergency Services permanent stockpile

The Monash State Emergency Services (SES) permanent stockpile is located in the Monash Structure Plan Area. The facility was identified in Section 6.3 as a site with the potential for dust which may have a default separation distance that impacts development in the Monash Structure Plan Area.

The stockpile contains wood chips and other green waste from pulverisation of fallen trees. There is no directly applicable category for this stockpile in the Separation Distance Guideline. However, due to the site's nature of green waste collection and temporary storage before transport off-site, the transfer station category for 'collecting, consolidating, temporarily storing, sorting or recovering refuse materials before transfer for disposal or use elsewhere' was considered appropriate. The policy applies a 250-metre default separation distance between these industries and sensitive or competing land use developments.

Since the transfer station category does not directly apply to the Monash SES stockpile it was determined further investigation was required.

If the dust risk is considered lower than prescribed for a transfer station, the default 250-metre separation distance may be reduced.

B.4.1 ACTIVITY ASSUMPTIONS

The following assumptions were made when conducting this assessment:

- The stockpile is uncovered at all times, and added to / removed from during the day
- The stockpile receives wood chippings from pulverisation of fallen trees by the SES, and stockpile throughput depends on the frequency and severity of storm events
- There are no available complaints on odour or dust regarding this site.

B.4.2 CURRENT AND POTENTIAL (STRUCTURE PLAN) LAND USES WITHIN THE SEPARATION DISTANCE

Figure B.3 shows the location of Monash SES stockpile and the extent of a 250-metre separation distance, along with surrounding land use zones and other sensitive receptors.

Given the site is approximately 60 metres south of the MRWC, the land uses within the separation distance are the same for the MRWC. Section B.3.2 below provides contains a description of these land uses.

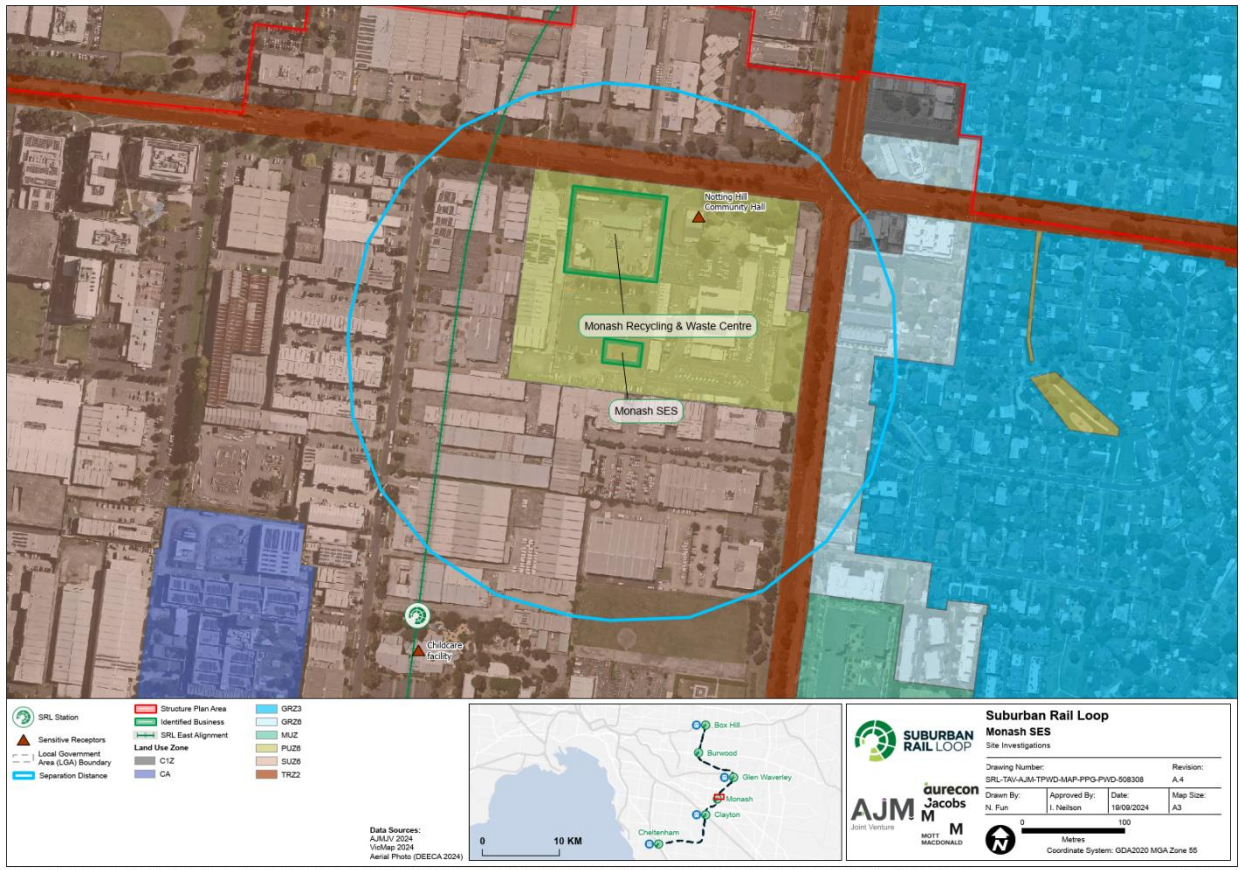


FIGURE B.3 MONASH SES WITH 250-METRE SEPARATION DISTANCE, LAND USE ZONES AND SENSITIVE RECEPTORS

B.4.3 DUST RISK ASSESSMENT RESULTS

The scoring for the MRWC is provided in Table B.4, based on the template provided in Appendix A of EPA Victoria Publication 1943. A score of 16 to 20 is calculated, which is classified as moderate risk, indicating dust impacts are only likely to occur on rare occasions.

TABLE B.4 DUST RISK ASSESSMENT – FOLLOWING APPENDIX A TEMPLATE, EPA VICTORIA PUBLICATION 1943

CATEGORY	CRITERIA	COMMENT	SCORE
Hazard potential of the source	Size of dust emitting source	Small – generally only picking up large numbers of trees after large storm events, which are uncommon.	1
	Activities being undertaken	Low potential for dust emissions – dust not generated by activity per-se, site is exposed area without activity aside from adding to and removing stockpile.	1
	Type of dust emission	Coarse – wood chippings and tree debris from tree pulverisation.	1
	Level of control	No effective control or containment – large exposed stockpiles and open air operation with no containment. While this would ordinarily be allocated a score of 3, the score is reduced to 1 in this case because the site is sealed or grassed except for the stockpile, and the stockpile material is very coarse meaning that residual emissions are similar to a ‘full control or containment’ site.	1

CATEGORY	CRITERIA	COMMENT	SCORE
Comments on overall hazard potential of the source	The source is relatively uncontrolled, but experiences a low throughput of coarse wood chippings and tree pulp.		
Effectiveness of exposure pathway	Distance	Intermediate -- receptors are tens or hundreds of metres from source, and separation distance has not been met.	2
	Prevailing wind direction	Favourable for existing land uses – winds rarely blow from the dust source to the nearest sensitive receptors to the east and south-east. This score could increase to 3 for sensitive land uses proposed south and south-west of the MRWC in the Structure Plan Area due to being downwind under prevailing higher wind speeds. Favourable -- winds rarely blow from the dust source to the nearest sensitive receptors to the east and south-east.	1 or 3
	Terrain	Intermediate – source is on same altitude as receiving environment, generally flat land. Intermediate -- source is on same altitude as receiving environment, generally flat land.	2
	Intervening land use	Moderate for existing land uses – intervening land use zone contains other non-sensitive industry or smaller businesses. However, the site has good sheltering due to high concrete walls separating the site from adjacent businesses to the south which reduce this score to 1. This score would potentially increase to 3 for sensitive land uses proposed near the MRWC in the Structure Plan Area if the existing concrete dividing walls were removed. Moderate – intervening land use zone contains other non-sensitive industry or smaller businesses.	1 or 3
Comments on overall effectiveness of pathway	The exposure pathway has moderate risks – noting that any potential sensitive land use developments are unlikely to encroach into the 250-m separation distance of the Monash SES stockpile. However, these risks are mitigated by the large concrete walls separating the site from adjacent businesses which provide wind breaks and would also stop most chip material that is blown off the stockpile in high wind speeds.		
Sensitivity of the receiving environment	Land uses / receptors	High general expectation of amenity – residential properties with backyards and open living areas, accommodation, carparks associated with workplace or residential parking.	6
	Historical context	No known previous history.	2
Comments on overall sensitivity of receiving environment	While the receiving environment contains residences and carparks, there have been no known complaints about the Monash SES stockpile and potential sensitive land use development is unlikely to include more residences within the 250-m separation distance.		
Total score			16 - 20
Overall risk of dust impacts occurring	Moderate risk – dust impacts only likely to occur on rare occasions. Although there may be some residual risk of nuisance dust, it can be practically and effectively managed		

B.4.4 ANALYSIS AND CONCLUSION

The outcome of the dust risk assessment for the Monash SES stockpile was the facility has a moderate dust risk, indicating dust impacts are only likely to occur on rare occasions. In reality, due to the nature of chip material stored on this stockpile, any chip material that is lifted off the stockpile during handling or high wind speeds will fall to the ground or be stopped by the concrete walls that separate the SES compound from

adjacent businesses. The risk of fine dusts becoming suspended in air and dispersing into the environment beyond the SES compound boundary is considered to be very low.

This risk assessment was conducted with the existing as well as and potential future land uses in mind, as per the guidance in EPA Victoria Publication 1943. It is important to note there are currently sensitive receptors in the form of residences and business units which are located within the 250-metre separation distance around the Monash SES Stockpile, and there have been no known complaints about the Monash SES stockpile's emissions.

B.5 Pazzi Marble & Granite

Pazzi Marble & Granite was identified in Section 6.3 as having a potential 100-metre separation distance. This separation distance encroaches into the eastern part of the Monash Structure Plan Area.

The business's operations consist of stone masonry for domestic and commercial spaces, along with specialised custom work. For production of finished concrete or stone products, the Separation Distance Guideline applies a 100-metre separation distance between this industry and sensitive land uses when the industry production threshold exceeds 5000 tonnes per year. It is unclear if this threshold is being exceeded. Regardless, a dust risk assessment guided by EPA Victoria Publication 1943 has been carried out and is detailed in Table B.5.


TABLE B.5 DUST RISK ASSESSMENT – FOLLOWING APPENDIX A TEMPLATE, EPA VICTORIA PUBLICATION 1943

CATEGORY	CRITERIA	COMMENT	SCORE
Hazard potential of the source	Size of dust emitting source	Unknown. Largest weighing score assumed.	3
	Activities being undertaken	Moderate potential for dust emissions.	2
	Type of dust emission	Unknown what kind of stone materials, fine stone assumed (Intermediate).	2
	Level of control	Partial control or containment – some areas of the site are controlled or sealed but there are areas not addressed. Reliance on management and housekeeping.	2
Comments on overall hazard potential of the source	The source hazard potential is moderate due to its partial open air setting and the high potential for hazardous dust emissions from stone working.		
Effectiveness of exposure pathway	Distance	Intermediate -- receptors are tens or hundreds of metres from source, and separation distance has not been met.	2
	Prevailing wind direction	Low frequency of winds from source to receptors, and/or source is upwind, winds are of low speed.	1
	Terrain	Intermediate -- source is on same altitude as receiving environment, generally flat land.	2
	Intervening land use	Moderate – moderate vegetation.	2
Comments on overall effectiveness of pathway	The pathway is an undeveloped stretch of greenfield with moderate vegetation. Vegetation can absorb dust, and easterly winds are very uncommon in the local area.		
Sensitivity of the receiving environment	Land uses / receptors	High general expectation of amenity – dust is likely to impact on damage to properties <100 m away, residential properties with open backyards and/or open living areas.	6
	Historical context	No known previous history. Engagement with business would be needed to confirm this.	2
Comments on overall sensitivity of receiving environment	Notting Hill village is <100 m to the west of the source. It is anticipated receptors in this area could be sensitive to dust impacts.		
Total score			24

CATEGORY	CRITERIA	COMMENT	SCORE
Overall risk of dust impacts occurring		Medium risk – indicates some nuisance dust can be expected to occur and without careful and considered application of mitigation measures it is likely to cause impacts. The focus should be on what can be done to break the source-pathway-receiving environment chain.	

From Table B.5 the dust risk for Pazzi Marble & Granite has been determined to be medium, based on an existing 87-metre separation distance. This risk score indicates that some nuisance dust might be expected. However, it is considered the risk score overstates the potential for nuisance dust to occur at the Structure Plan Area boundary to the west of the business, because even though the low frequency of winds blowing in that direction are accounted for in the risk score, the low wind direction frequency is a key factor in the risk of amenity impacts that is not adequately represented by this scoring method. In addition, the main stone working activities of the business are conducted within buildings.

In addition, the overlap of the default buffer distance into the Structure Plan Area affects only a portion of seven properties that are already developed for residential use. Given the small extent of affected area and the dust risk assessment, it is not considered that any land use development controls would be necessary within the overlap area.



Appendix C
**Representative
wind roses for
MRWC and
surrounds**

Appendix C Representative wind roses for the MRWC and surrounds

Figure C.1 shows wind roses using data from the Bureau of Meteorology automatic weather stations at Moorabbin Airport (ID: 86077) and Olympic Park (ID: 86338), during operational hours at the MRWC (6am to 4pm).

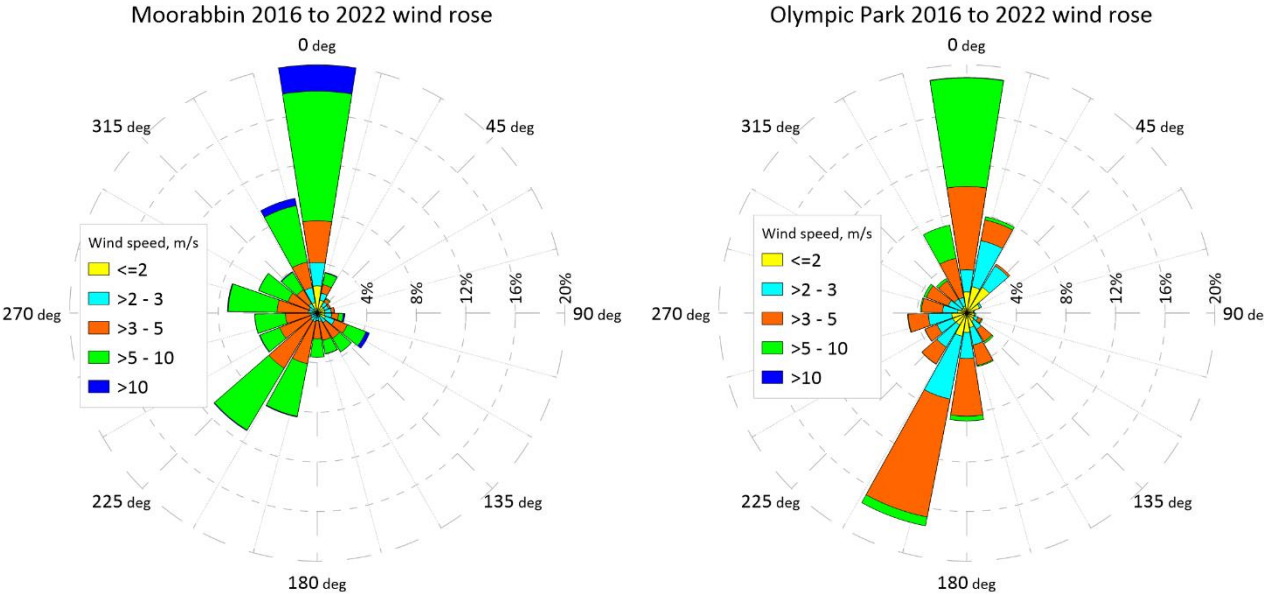


FIGURE C.1 WIND ROSES FOR MOORABBIN AND OLYMPIC PARK AUTOMATIC WEATHER STATION (BOM) SHOWING HOURLY AVERAGE WIND SPEED AND DIRECTION FOR OPERATIONAL HOURS (6AM-4PM), 2016-2022. (DATA SOURCE – BUREAU OF METEOROLOGY)



Appendix D
**Managing air
quality risks
through
strategic site
selection**

Appendix D Mitigating air quality risks through strategic site selection

Major roads can have local odour or dust impacts due to the volume of traffic they carry, particularly near intersections or where traffic becomes congested. Developments located next to busy roads have challenges in terms of how to provide an acceptable level of nuisance odour and dust for the occupants and users of the development. Although there can be different requirements for noise, energy-efficiency and odour or dust issues that need addressing at the design stage, there are also often common objectives and synergies.

Strategic site selection from the perspective of road corridors for schools and childcare centres is particularly important as young people are generally more sensitive to noise and nuisance odour or dust than adults. Very young children and babies are more sensitive to these effects. The childcare day often extends beyond the typical school day to include morning and afternoon peak hour traffic, making childcare centres particularly vulnerable to nuisance odour and dust. Other sensitive uses such as hospitals, seniors housing or places of worship should be located so that vulnerable people are not placed in areas with nuisance odour or dust (and noise) impacts.

Buildings in unconfined areas tend to experience winds and breezes which disperse and carry away air pollutants. The degree to which winds and breezes carry away air pollutants is influenced by the orientation and continuity of open spaces around a building, their dimension and shape, topography and how the buildings are sited.

Figure D.1 shows how roadway canyons can channel winds, or prevent them from reaching road level, depending on their shape, dimension and orientation. The more confined a space is by buildings, walls or embankments adjacent to or over a roadway, the less opportunity for air pollutants to disperse, and they can trap air pollutants.

Stepping back the upper storeys of roadside buildings increases dispersion of air pollutants and minimises the canyoning effect of tall buildings close to the road. As air flows around buildings and other obstacles, it creates zones of accelerated wind speeds and of reduced air circulation. Air pollutants emitted within a well-ventilated situation may be quickly dispersed, whereas pollutants trapped by buildings can become concentrated. At other times, with different atmospheric conditions, buildings may act as a barrier that shields and protects sensitive areas from high-emission zones.

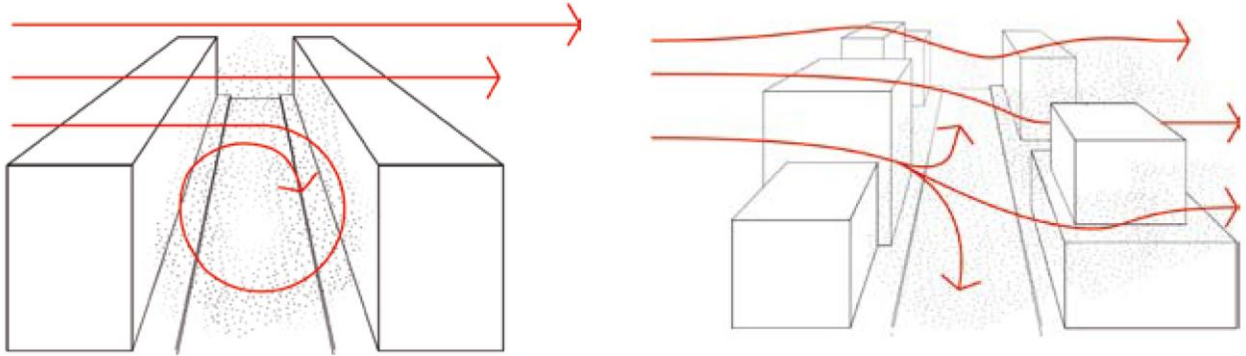
Opportunities to minimise nuisance odour and dust impacts for sensitive receptors by considering the location and design of taller buildings, as detailed in guidelines by NSW Department of Planning (2008)¹, include:

- The formation of urban canyons that reduce dispersion should be minimised – having buildings of different heights interspersed with open areas, and setting back the upper stories of multi-level buildings helps to avoid urban canyons.
- An appropriate separation distance between sensitive uses and the road should be incorporated, using broad scale site planning principles such as building siting and orientation – the location of living areas, outdoor space and bedrooms and other sensitive uses (such as childcare centres) should be as far as practicable from the major source of air pollution.
- Ventilation design and open-able windows should be considered in the design of buildings near major roadways – when mechanical ventilation is proposed, the air intakes should be sited as far as practicable from the major source of air pollution.

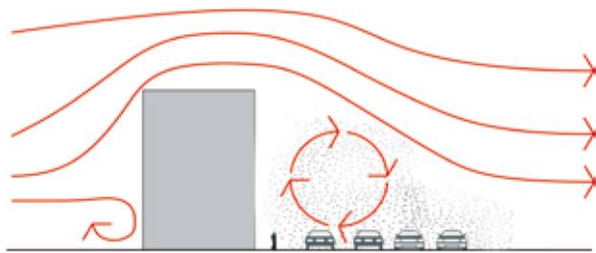
¹ While the Victorian Planning Authority recognises and addresses risks of air quality around site selection of sensitive receptors generally, guidance from the NSW Department of Planning includes specific mitigation measures which have been included.

- Vegetation screens and barriers (green screens) or earth mounds should be considered where appropriate, to help maintain ambient air amenity and improve the dispersion of air pollutants.

The location of shafts for the SRL tunnel ventilation system should also be considered when planning development and designing buildings in the Structure Plan Area.



(a) Roadway canyons and their effect on winds and air pollutants



(b) Buildings creating situations where air pollutants are trapped

FIGURE D.1 EFFECT OF BUILDING LAYOUT ON AIR DISPERSION FROM ROADS (SOURCE: NSW DEPARTMENT OF PLANNING 2008)



Appendix E
**Peer review
report**

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17 February 2025

SRL East Odour and Dust Technical Report – Independent technical review

Dear Fiona,

Zephyr Environmental Pty Ltd (Zephyr) was engaged by White and Case and Clayton Utz on behalf of the Suburban Rail Loop Authority (SRLA) to complete an independent third party review of the SRL East Odour and Dust Technical Report (the Technical Report) prepared by the AJM Joint Venture.

Zephyr has been involved in the development of the Technical Report through the review of draft versions. This letter provides a review of the final version of the Technical Report (dated February 2025) and considers:

- Purpose of the Technical Report (to provide context for both the reviewed document and this letter)
- Considered legislation
- Adopted methodology to determination of the separation distance
- Accuracy of application of the methodology to the consideration of separation distances
- Consideration of mitigation measures for the construction of sensitive uses within defined separation distances.

1. PURPOSE OF THE TECHNICAL REPORT

The Suburban Rail Loop (SRL) will deliver a 90-kilometre rail line linking every major train service from the Frankston Line to the Werribee Line via Melbourne Airport. SRL East is the first section of the SRL to be constructed and will be formed of 26-kilometre twin tunnels between Cheltenham and Box Hill linking the suburbs of Cheltenham, Clayton, Monash, Glen Waverley, Burwood and Box Hill.

The new stations that will be developed in these suburbs provide an opportunity to consider the development of these areas to support thriving and sustainable neighbourhoods and communities that offer diverse and affordable housing options, with easy access to jobs, transport networks, open space, and community facilities and services. To this end, Structure Plan Areas have been developed by the SRLA surrounding the stations.

There are, however, existing uses both within the Structure Plan Areas and outside these areas that have a use for which there are residual emissions to the atmosphere that have the potential to result in amenity impacts by way of odour and nuisance dust.

The intent of the Technical Report is to identify these uses, understand what a suitable separation distance would be for these uses and to determine whether these separation distances interact with the Structure Plan Areas. Where this occurs, the Technical Report recommends methods to mitigate the impact or uses that are suitable within the overlap area. The Technical Report will therefore assist future structure planning of uses within the identified Structure Plan Areas.

2. CONSIDERED LEGISLATION

Section 4 of the Technical Report contains the legislative policy context of the report and discusses:

- Victorian Planning Provisions (VPPs)
- Environment Protection Act
- Environment Reference Standard
- Environment Protection Regulations
- EPA Separation Distance Guideline.

2.1. VPPs

The Victorian Planning Provisions (VPPs) which are the minimum base planning scheme for all Councils within Victoria to which local context can be added. The Technical Report appropriately identifies as relevant:

- Clause 13.06-1S – Air Quality Management, which seeks to assist the protection and improvement of air quality in Victoria by ensuring that wherever possible, there is a suitable separation between land uses that reduce amenity and sensitive land uses.
- Clause 13.07-1S – Land use compatibility, which seeks to protect community amenity, human health and safety while facilitating appropriate commercial, industrial, infrastructure or other uses with potential adverse off-site impacts. To achieve this, the use of land use separation is included as a relevant strategy.
- Clause 17.03-1S – Industrial land supply and Clause 17.03-2S – Sustainable industry, which seek to provide appropriate buffer areas to sensitive land uses and to protect from encroachment of sensitive land uses that would otherwise adversely impact the industry's viability.
- Clause 44.08 – Buffer overlay area, which seeks to identify areas with potential off-site impacts on safety and human health or significant off-site impacts on amenity.
- Clause 65.01 – Approval of an application or plan which requires the responsible authority to consider as appropriate the effect on the environment, human health and the amenity of the area before deciding on an application or approval of a plan.

The Technical Report also discusses Clause 53.10 but appropriately considers it not to be relevant as it relates to the development of new industry. Further, the Technical Report discusses PPN92 which is not part of the VPPs but provides guidance on Clauses 53.10 and 44.08.

As discussed in the EPA Separation Distance Guideline, also relevant to separation distances, but not discussed in the Technical Report are:

- Clause 17.03-2S – Sustainable Industry, which seeks to allow the sustainable development of industry considering amongst other things environmental impact.
- Clause 17.03-3S – State significant industrial land, which seeks to protect industrial land that is considered to be of state significance.
- Clause 66 – Referrals to EPA, which sets out the kinds of applications that must be referred under section 55 of the P&E Act, or for which notice must be given under section 52(1)(c). EPA is a determining referral authority for a range of planning applications, including any proposal for land use or development that requires approval and licensing under the EP Act including
 - Clause 66.02-7 – which requires any proposal to use land for an industry, utility installation or warehouse for a purpose listed in clause 53.10, with no threshold distance specified or if the threshold distance is not to be met, to be referred to EPA under section 55 of the P&E Act as a determining referral authority.

It is considered, that as these additional clauses relate to the development of industrial facilities, they are not relevant to the purpose of the Technical Report and as such it is appropriate that they are not included in the discussion.

2.2. Environment Protection Act

In reference to the future development of the Structure Plan Areas, it is considered that the Technical Report appropriately identifies in Section 4.3 the General Environmental Duty as a relevant part of the Environment Protection Act, 2017. The General Environmental Duty requires all Victorians to eliminate the risk of impact or where this is not possible to reduce the risk of impact so far as reasonably practicable.

In identifying the existing industries and defining the separation distances the Technical Report seeks to identify areas of potential risk and through either recommending non-sensitive uses within these areas or mitigation measures this in some way seeks to fulfill the GED.

The importance of consideration of the GED by those using the Technical Report in the development of the Precinct Structure Plan cannot be understated and this section must therefore be read carefully and fully understood.

2.3. Environment Reference Standard

Section 4.4 of the Technical Report discusses the Environment Reference Standard (ERS). The ERS seeks to provide environmental values that are protected and objectives which measure whether those values are being met.

The Technical Report briefly discusses Table 4.2 of the ERS which provides direction on which environmental values apply to different land categories. The use of the Table 4.2 of the ERS in the development of the Precinct Structure Plan is key to ensuring that the values of the ERS are preserved and the land use identified as being associated with the amenity environmental value are not recommended for consideration within any identified separation distance unless it can be proven through design or further study that the risk is sufficiently low. Such an outcome meets the objectives of Clauses 13.06-1S, 13.07-1S, 17.03-1S, 17.03-2S and 65.01 of the VPP.

2.4. Environment Protection Regulations

The Environment Protection Regulations (Regulations) outline specific requirements for industries, including reporting to the National Pollutant Inventory and obtaining operational licenses or registrations. While these Regulations aren't directly applicable to Precinct Structure Plans, they play an indirect role.

The Regulations' thresholds for licensing or registration often align with those for separation distances outlined in the EPA Separation Distance Guideline (Section 2.5 of this letter). This means that if a facility doesn't have a license for a particular activity, it's likely operating below the threshold requiring a separation distance.

This assumption, used in the Technical Report, is considered reasonable. It provides a practical approach to assess potential environmental impacts and guide land use planning within the precinct.

2.5. Separation Distance Guideline

The EPA Separation Distance Guideline replaces EPA Publication 1518 - Recommended separation distances for industrial residual air emissions. The Technical Report appropriately identifies that Clauses 13.06-1S, 13.07-1S, 17.03-1S, 17.03-2S and 65.01 of the VPPs reference as a relevant document EPA Publication 1518 and as the EPA Separation Distance Guideline has replaced EPA

Publication 1518 it is now the relevant reference to use in the application of these clauses. It is agreed that it is likely at some point that the VPPs will be updated to reflect the replacement of EPA Publication 1518 with the EPA Separation Distance Guideline.

The Technical Report also appropriately republishes the flow diagram from the EPA Separation Distance Guideline as Figure 4-1 and it is this flow diagram that should be used in developing separation distances.

The Technical Report refers to the Separation Distance Guideline as variously being 'Policy'. The word policy can be interpreted to mean that it is part of the legislation either being an Act of Parliament or subordinate to the Act (such as the Environment Reference Standard or Environment Protection Regulations). In this context, the word 'policy' is being used to mean 'position' or 'approach' advocated by the EPA. The EPA Separation Distance Guideline is, as the name suggests, a Guideline document. It is a recommendation to the decision maker on what the separation distances should be, how to calculate them and how to implement them. Indeed, the various VPPs use the phrase 'consider as relevant' when referring to EPA Publication 1518 (now replaced by the Separation Distance Guideline), thus it is important for the decision maker to consider the contents of this document, but implementation to the letter of the document is not necessarily required as it is not a legislative requirement.

Having made this distinction, however, it is noted that in normal use the approach within the Separation Distance Guideline is typically adopted and implemented.

3. ADOPTED METHODOLOGY

The Technical Report uses the following methodology:

- Define the study area through the establishment of a 1 km distance from the Structure Plan Areas. 1 km was based on the understanding that the majority of separation distances within the EPA Separation Distance Guideline are 1 km or less and those industries that have larger than 1 km separation distances recommended do not exist within this part of Melbourne.
- Identify existing businesses and facilities that have the potential to generate odour and dust in the study area through a review of:
 - The National Pollutant Inventory
 - EPA Victoria Priority Sites Register
 - Victorian Landfill Register
 - EPA Victoria register for permissioned facilities
 - Aerial photography
 - Investigation of operating or closed landfill sites
 - Review of the Major Hazard Facilities Register
 - Confirmation of property or parcel boundaries using VicPlan
- Completion of site visits for operations where the activity or the potential to produce odour or dust was not clear.
- Determination of which businesses have default separation distances within the Separation Distance Guideline, and through comparison with the EPA Victoria register for permissioned facilities and the NPI understanding of which businesses are in excess of thresholds for which the separation distances apply.
- Mapping of separation distances for each study area using initially the boundary of the industrial premises as the basis for the separation distance and refining this to the activity area in accordance with the Separation Distance Guideline where further investigation was warranted.

- Where the defined separation distance crosses the Structure Plan Areas use of a risk assessment following either EPA Publication 1883: Odour Guideline or EPA Publication 1943: Assessing Nuisance Dust to determine the level of risk within the overlap area.
- Providing recommendations for the minimisation of odour and dust impacts in areas where the risk was identified as 'Medium' or higher risk for odour under EPA Publication 1883 or EPA Publication 1943.

The report also identifies that there is potential for cumulative impact where multiple separation distances for similar odours or for dust overlap, and notes that there are overlapping separation distances in the Cheltenham, Clayton and Monash study areas. The Technical Report notes that cumulative impacts have the potential to result in amenity impacts at greater distance than the default separation distances mapped and/or greater frequency of odour where the separation distances overlap.

Whilst overlapping separation distances have been identified, the potential for cumulative impact has been considered unlikely due to:

- Different odour characteristics, with the overlapping areas of the separation distance being outside of the Structure Precinct Area and therefore not of a material concern (Cheltenham and Clayton).
- The generation potential for one identified source being low, despite the risk assessment indicating moderate risk, due to the type of material handled being unlikely to generate fine particles meaning that cumulative impact from the two sources with overlapping separation distance is unlikely (Monash).

The methodology used is considered to be appropriate.

4. ACCURACY OF APPLICATION OF THE METHODOLOGY

Whilst this review has not independently verified that all industries have appropriately been identified, nor has it verified the level use for each of the industries listed. Spot checks have been made for a number of industries and each case reviewed, the use stated and the level of activity was able to be verified and the application of the separation distance is considered to have been appropriately implemented.

The review has considered the application of EPA Publication 1883 and EPA Publication 1943 in Appendices A and B of the Technical Report and has considered the values provided in the risk assessments. It is considered that the level of risk in areas where the default separation distance overlaps the Structure Plan Areas has been appropriately calculated.

5. MITIGATION MEASURES FOR THE CONSTRUCTION OF SENSITIVE USES WITHIN DEFINED SEPARATION DISTANCES

For locations necessitating separation distances that intersect with the Structure Plan Areas, the Technical Report analyses the source-pathway-receptor model to identify potential intervention points to minimise risk.

In each instance for the source component, the response is to introduce further mitigation measures. Where the Precinct Structure Plan introduces the more sensitive use, it would be up to the agent of change to negotiate with the facility for the implementation of additional mitigation measures. This may necessitate payment for the installation of new mitigation measures at the source which would not be required if the more sensitive use were not introduced.

To mitigate dust impacts by disrupting the pathway, the Technical Report suggests using non-sensitive land uses like green spaces, car parks, utilities, and warehousing as buffers between the facility and sensitive land uses, such as residential or recreational areas. Green spaces are considered amenity areas in the context of Table 4.2 of the Environment Reference Standard and as the Technical Report states should only be used where the risk can be demonstrated to be low as a function of likely exposure and use. Utility facilities may themselves require specific separation distances and therefore may not be suitable.

The EPA Separation Distance Guideline encourages land uses like agriculture, car parks, emergency services, natural systems, service stations, garden supplies, plant nurseries, and veterinary centres within separation distances.

Uses such as utilities (except for sewage works), offices, research centres, retail premises, informal outdoor recreation are recommended for consideration by the EPA Separation Distance Guideline only be used where detailed risk assessments, which may include the use of odour surveys, are used to define the risk, which is beyond the scope of the Technical Report.

It is recommended therefore that the Precinct Structure Plans should prioritise the encouraged land uses from the EPA Separation Distance Guideline within separation distances.

In some instances, the Technical Report also recommends the use of walls at the source to prevent the impact of dust from the facility. Walls can be useful; however, the degree of effectiveness is dependent on the distance of the wall from the source, and how tall the wall is relevant to the source itself. The provision of a wall does not, therefore, prevent all impact, and analysis would be needed to determine the effectiveness of the mitigation measure, as in some instances the use of a wall would not reduce the risk.

In considering the Receptor, the Technical Report recommends the use of design to prevent impact including using elevated ventilation air intakes and entries / openable windows facing away from the facility and incorporating air filtration technology from common air intake points. Such design approaches can reduce the potential risk; however, it is recommended that any use of these design considerations would need to undergo a risk assessment to determine whether there is an acceptable level of risk in accordance with the requirement of the GED at the point in time where the design is generated.

6. CLOSING

Overall, it is considered that the Technical Report correctly identifies the relevant legislation and guidelines and adopts an appropriate methodology to identify sources and determine the application of separation distances to those facilities.

Where identified separation distances impact the Structure Plan Areas semi-quantitative risk assessments have been completed in accordance with the relevant guidance.

The assessment has also considered the potential for cumulative risk where separation distances overlap each other and it was found that either the character of odour for the overlapping separation distances would be different and/or the overlapping areas were outside of the Structure Plan Areas or that one of the sources of dust was not likely to be material. The approach used in evaluating the overlapping separation distances is considered to be appropriate.

The approach to mitigation within the defined separation distances has considered the source, pathway and receptor. The mitigation suggests the ability to reduce the emission at the source, however it is considered that this ability may be limited at the stage of development of the Precinct Structure Plan, and it may be up to the eventual developer to investigate this avenue which may include purchase of additional mitigation technology for the facility. The approaches to disrupt the pathway using non-sensitive uses is correct, however it is recommended that the land uses should be

selected in accordance with those encouraged uses within EPA Separation Distance Guideline rather than those listed in the Technical Report. Further, the use of walls to disrupt the pathway would need careful evaluation as there is potential that such design may have no impact on reduction of risk depending on the location of the wall. Finally, careful consideration is recommended when using elevated ventilation air intakes and entries / openable windows facing away from the facility and incorporating air filtration technology from common air intake points in design to mitigate the risk at the receptor. Such approaches can be effective, but they will require the use of a risk assessment at the point of design in order that the residual level of risk can be determined to be acceptable in accordance with the General Environmental Duty.

Yours sincerely,

A handwritten signature in black ink, appearing to read "Iain Cowan".

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