

MT ATKINSON & TARNEIT PLAINS PSP

PLANNING EXPERT EVIDENCE – MICHAEL BARLOW

2 SEPTEMBER 2016

PREPARED UNDER INSTRUCTION FROM NORTON ROSE FULBRIGHT



URBIS STAFF RESPONSIBLE FOR THIS REPORT WERE:

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1. INTRODUCTION

1. This statement of evidence has been prepared regarding the Mt. Atkinson and Tarneit Plains Precinct Structure Plans 1082 and 1085¹ and the land use planning matters that relate to the adjoining quarry and landfill operations on 1154-1198 Christies Road and 408-546 Hopkins Road, Ravenhall (the **subject site**).
2. The subject site is owned by Boral with lease agreements in place with the Melbourne Regional Landfill operators Cleanaway Waste Management to use the land for landfill waste purposes.
3. The subject site is also currently the subject of a planning permit application PA2016/5118 (Council reference) that was made to the City of Melton Council on 29 February 2016 for an extension to the area used for landfill purposes (the **planning permit application**).
4. In April 2016, the Minister for Planning 'called in' the planning permit application and it will be considered by a planning panel.
5. The Mt Atkinson and Tarneit Plains PSPs have been prepared as a joint PSP: the Mt. Atkinson and Tarneit Plains PSP. I refer to it hereafter as "**the PSP**".
6. Planning scheme amendment C162 (the **Amendment**) has been prepared by the Metropolitan Planning Authority (MPA) who is the planning authority. The City of Melton assisted in its preparation. The Amendment proposes to incorporate the PSP into the Melton Planning Scheme (the **Planning Scheme**) which will facilitate the use and development of the land in the PSP area for urban purposes. Draft Urban Growth Zone Schedule 9 (UGZ9) has been prepared and will give effect to the PSP.
7. I understand the PSP area to be in fragmented ownership, however, I am aware that land owners are being coordinated by Mt. Atkinson Holdings Pty Ltd who has declared that they represent entities that own or control in the order of 700ha of land in the PSP area.
8. Both the PSP area and the subject site are located within the municipality of the City of Melton.
9. The PSP applies to an area measuring 1,531ha in size and is shown on the general location plan in **Figure 1**. In summary, the draft PSP exhibited between 19 April 2016 and 30 May 2016 proposes:
 - Housing land for a minimum of 6,700 new dwellings (at different density targets e.g. residential at 16.5 dwellings per net developable hectare or 25 dwellings per hectare in mixed use areas)
 - A projected population of approximately 19,000 people (at 2.8 persons per dwelling)
 - To facilitate approximately 18,000+ new local jobs
 - A large 'specialised activity centre' comprising a range of uses including supermarket, DDS, commercial, community facilities, mixed-use. The PSP makes provision for a total of 23,500m² of retail floor space south of the Melbourne-Ballarat railway line and 2,500m² north of it ('soft caps')
 - Schools, including primary and secondary
 - Open space networks comprising conservation reserves (196ha), the Mt. Atkinson volcanic cone reserve, waterway and drainage channels, sports reserves and other linear open space.

¹ Metropolitan Planning Authority (now Victorian Planning Authority) PSP references.

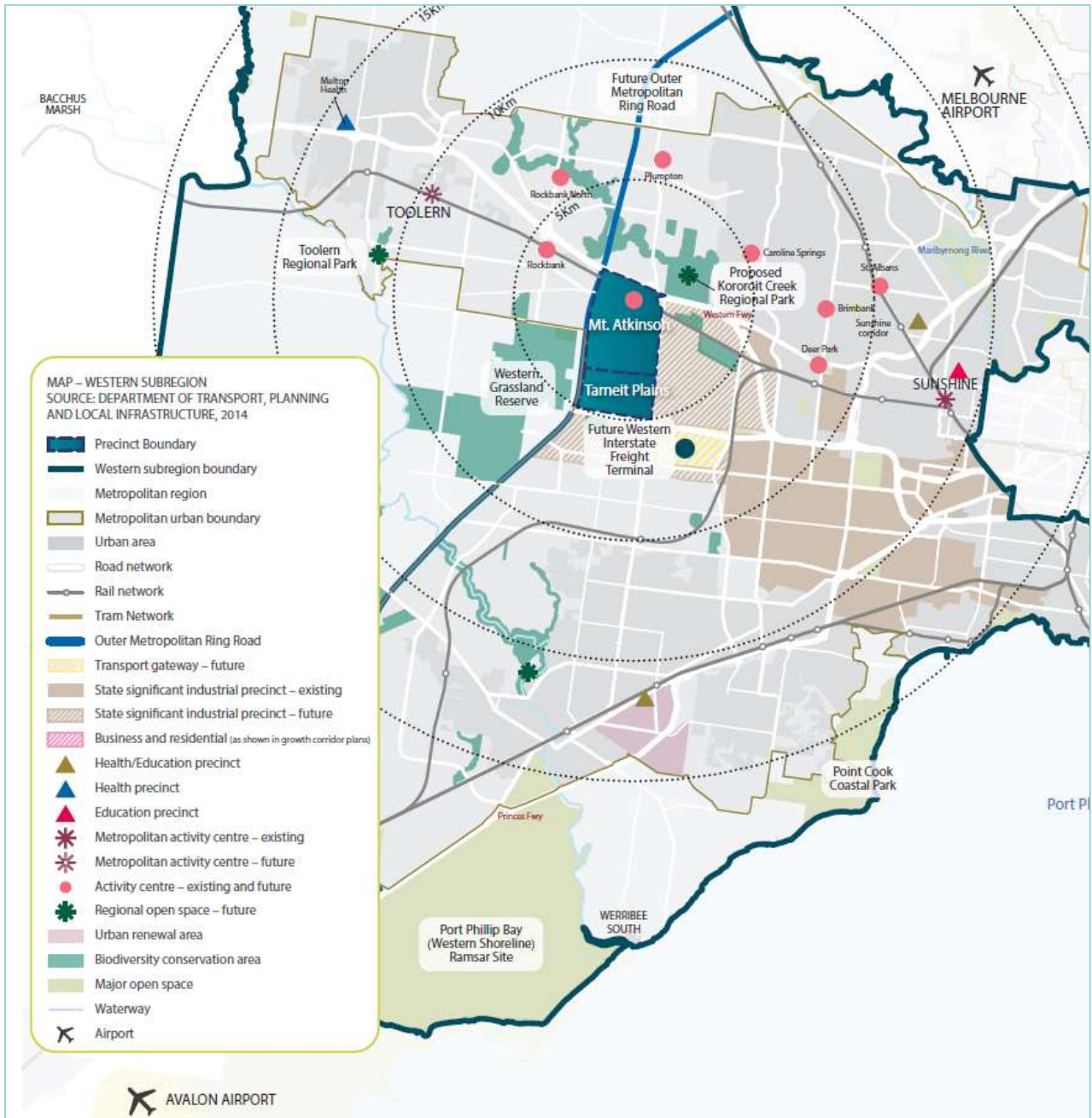


Figure 1 – Location of Mt. Atkinson and Tarneit Plains PSPS as highlighted in dark green shaded area (Source: Mt. Atkinson and Tarneit Plains PSP, MPA)

1.1.1. Guide to Expert Evidence

- I acknowledge that I have read and complied with the *Guide to Expert Evidence* prepared by Planning Panels Victoria. In accordance with this guide, I provide the following information.

1.1.2. Name and Address

Michael Bruce Barlow
 Urbis Pty Ltd
 Level 12, 120 Collins Street,
 Melbourne VIC 3000

1.1.3. Qualifications and Experience

11. I am a Director of Urbis Pty Ltd. I am a qualified town planner and have practised as a town planner for over 35 years (including 31 as a consultant planner) and hold a Diploma of Applied Science (Town Planning) from Royal Melbourne Institute of Technology for which I qualified in 1981.
12. My experience includes:
 - 2011 to present: Director of Planning, Urbis Pty Ltd
 - 2002 to 2010: Managing Director, Urbis Pty Ltd
 - 1990 – 2001: Director of Urbis Pty Ltd (and its predecessors including A.T. Cocks Consulting)
 - 1985 – 1990: Senior Planner, A.T. Cocks Consulting
 - 1982 – 1985: Planning Officer and Appeals Officer, City of Melbourne
 - 1981 – 1982: Planning Officer, Shire of Eltham
 - 1977 – 1980: Planning Officer, City of Doncaster and Templestowe
13. I advise on the development of cities, their principal activities and land uses and have extensive experience in strategic and development planning. I have been engaged on a wide range of projects throughout Australia, China and the Middle East. I have particular project experience involving major urban development projects across a range of localities and activities including:
 - The analysis of drivers of change in cities and their impacts and influence on industry, employment and economic development, retail and activity centres, residential development strategies and policy, metropolitan growth and urban management.
 - The preparation of master plans for institutional and educational establishments, airports and new urban development.
 - A wide range of international urban development projects including the planning of the new port city serving Shanghai and major city and new town strategies for a number of cities within the Yangtze River corridor, China.
 - Leadership of the development of a comprehensive Framework Plan for the Emirate of Dubai. This project created a Vision to guide the economic development of the Emirate, an Urban Framework Plan and an Urban Management System for the government of Dubai.
 - Advice on new and specialist land uses and development concepts including the ongoing development of major Australian airports, the introduction and impacts of new retail concepts and standalone megaplex cinemas and the introduction of the casino into central Melbourne.
 - Major retail developments comprising central city centres, super-regional centres and mixed use developments.
 - Major commercial and residential developments in the Melbourne central city area including the CBD, Docklands and Southbank and throughout metropolitan Melbourne.

I provide expert evidence at various forums including the Supreme Court of Victoria, Federal Court of Australia, Land and Environment Court (NSW), the Victorian Civil and Administrative Tribunal and independent planning panels regarding the planning implications and impacts of development.

1.1.4. Expertise to make the report

14. I have advised on and assessed the introduction of new planning controls across Victoria ranging from the introduction of the new format schemes, new urban area development controls to site-specific development controls over the past 30 years.

1.1.5. Instructions

15. I have been requested by Norton Rose Fulbright, on behalf of Cleanaway Waste Management Ltd (Cleanaway) to undertake an assessment of the planning issues affecting the subject site as a result of the PSP and the exhibited amendment.

16. For the purposes of this report I focus on the following matters:
- a. A review the Future Urban Structure and consider the appropriateness or otherwise of the overall layout of the PSP with respect to the current and future operation of a landfill on the Boral site.
 - b. A review and consideration the location and planning merits of land use designations in the PSP with particular focus on areas within the landfill/quarry/gas pipeline buffers.
17. I confirm that I am the author of this report and I have been assisted by Mr Anthony Calthorpe in its preparation.

1.1.6. The Facts, Matters and Assumptions on which the Opinions are expressed in this Report

18. In undertaking my assessment I have familiarised myself with the site and I have had regard to the following documents:
- Plan Melbourne and other relevant metropolitan planning strategies
 - The Melton Planning Scheme
 - The Growth Corridor Plans (2012) which includes the ‘West Growth Corridor Plan’
 - The documents associated with Amendment C162 to the Melton Planning Scheme.
 - Precinct Structure Planning Guidelines (2012)
 - Relevant Planning Panel Reports
 - Submissions made by Councils, relevant authorities and others regarding the draft Precinct Structure Plan and Amendment C162
 - Planning permit application PA2016/5118 and accompanying documents
 - The Waste Planning Framework as it applies under the Environment Protection Act 1970, including:
 - Getting Full Value
 - Statewide Waste Resource and Recovering Infrastructure Plan (SWRRIP)
 - The (Draft) Metropolitan Waste and Resources Recovery Strategic Plan (MWRRS) – October 2013
 - Various other documents relating to waste and resource recovery planning in Victoria
19. The matters addressed within this report fall within my planning expertise. I note in the body of my report where I have specifically relied on the detailed technical assessments and supporting documentation prepared by others to assist my assessment of a particular matter.

1.1.7. Declaration

20. I declare that in preparing the material contained in this report I have made all inquiries that I believe are desirable and appropriate and no matters of significance which I regard as relevant have to my knowledge been withheld from the Panel.

1.1.8. Findings

21. My findings are set out in the body of this report.

2. OVERVIEW OF LANDFILL AND QUARRYING OPERATIONS AT THE SUBJECT SITE

22. As per the instructions I have been given, as outlined in 1.1.5, I have been requested to review and comment on a number of matters that have arisen in relation to the exhibited Amendment C162 and the preparation of the Mt. Atkinson and Tarneit Plains PSP and how it responds, in particular, to the existing landfill operations (of recognised state importance) on the subject site.
23. Prior to considering the impacts of the PSP, it is appropriate to firstly establish the extent of the landfill operations on the subject site, including its historical development and to identify its future potential capacity both to be quarried and to accommodate future putrescible landfill waste. This provides an appropriate context for my subsequent consideration of the PSP.
24. While I have been asked to primarily consider the town planning matters in relation to the landfill operation, I also consider quarrying to the extent that any land that is quarried provides potential scope to be used as a landfill cell in the future, as anticipated by metropolitan waste planning in identifying future capacity for landfill at Deer Park.

2.1. SUBJECT SITE

25. **Figure 2** provides an overview of the subject site land holding. The subject site comprises two properties being 408-546 Hopkins Road, Truganina and 1154-1198 Christies Road, Ravenhall in the City of Melton. Collectively, these are typically referred to as the “*Deer Park Site*”; however, I continue to refer to this as the subject site herein.
26. The City of Melton is a Growth Area Council, as declared under Section 46AO of the Planning and Environment Act 1987 (**PE Act**) and the subject site is located within the Western Growth Corridor, which I address later in this report.
27. The subject site measures 1150ha in area and is currently owned by Boral. Figure 2 illustrates that it is irregular in shape.
28. It is generally bound by the Melbourne-Ballarat railway line to the north, Christies Road to the east, Middle Road to the south and Hopkins Road to the west. Within these boundaries three separate land parcels not owned by Boral contribute to the irregular shape of the subject site. The Riding Boundary Road Reserve crosses the site east-west, running parallel to Middle Road approximately on ‘1 mile grid’ layout. To date the use of the subject site for quarrying and landfill purposes has occurred to the south of Riding Boundary Road. I will briefly summarise this activity further below.
29. Two high-voltage electricity transmission lines diagonally cross the subject site – one on its north western corner and one on its south-east. A grassland conservation reserve sits on the north-eastern corner of the subject site bordering the railway line. It is known as the Northern Grasslands and is the subject of a Section 173 Agreement regarding its protection and management.
30. I understand that the subject site has been quarried since 1964 for the purpose of extracting basalt rock. It operates under current planning permit PA2001/249 (Council reference).
31. A putrescible landfill has operated at 1154-1198 Christies Road since 1999, which occupies the south-eastern corner of the subject site.
32. I understand that on 28 February 2015, Landfill Operations Pty Ltd, a wholly owned subsidiary of Cleanaway Waste Management Ltd (then called Transpacific Industries Group Ltd) purchased from Boral the landfill business at the above location. The landfill, previously known as Western Landfill, is now referred to as Melbourne Regional Landfill (MRL)
33. Cleanaway has also acquired an interest in other land on the subject site pursuant to an operating agreement with Boral that is related to future landfill operations.

34. **Figure 2** illustrates areas of the subject site to the south-west and north of Riding Boundary Road that form part of the planning permit application area for the MRL extension. These are approved quarrying areas yet to be disturbed.
35. 500m landfill gas buffers apply to any operating or closed areas of landfilling at the MRL facility.

2.2. FUTURE LANDFILL

36. The recent planning permit application that was originally made to the City of Melton sought approval for the purposes of landfill (refuse disposal) would extend the MRL to include the areas shown on **Figure 2**. I understand that the sequencing and staging of landfilling would progressively follow that of the quarrying activity. The permit application has identified an estimated operating capacity of 44 years.
37. I understand that the existing landfilling operation has been estimated to have remaining capacity to accommodate 7-10 years of refuse under its current works approval area. The planning permit documentation indicates that from a commercial viability perspective, this does not provide business certainty, particularly for investment in infrastructure and technologies².
38. The proposed buffers that have been identified for the MRL extension are shown on the **Figure 3**, as extracted from the planning permit application documentation prepared by Tract³. It should be noted that the exhibited PSP does not reflect the intended landfill gas buffers shown in Figure 3.
39. The MRL is identified within the State's waste planning framework as a facility of State Importance and is considered to be vital in terms of meeting the needs of Melbourne's landfill capacity for the medium term beyond the current lifetime of the facility. I will turn to this matter in more detail later in my report.

² See for example page 20 of the report by Tract titled "Melbourne Regional Landfill Extension – Planning permit application report", 19 February 2016.
³ Extracted and replicated from Figure 6 – "Buffer Plan" of the 'Melbourne Regional Landfill Extension: Town Planning Report' prepared by Tract, 19 February 2016.

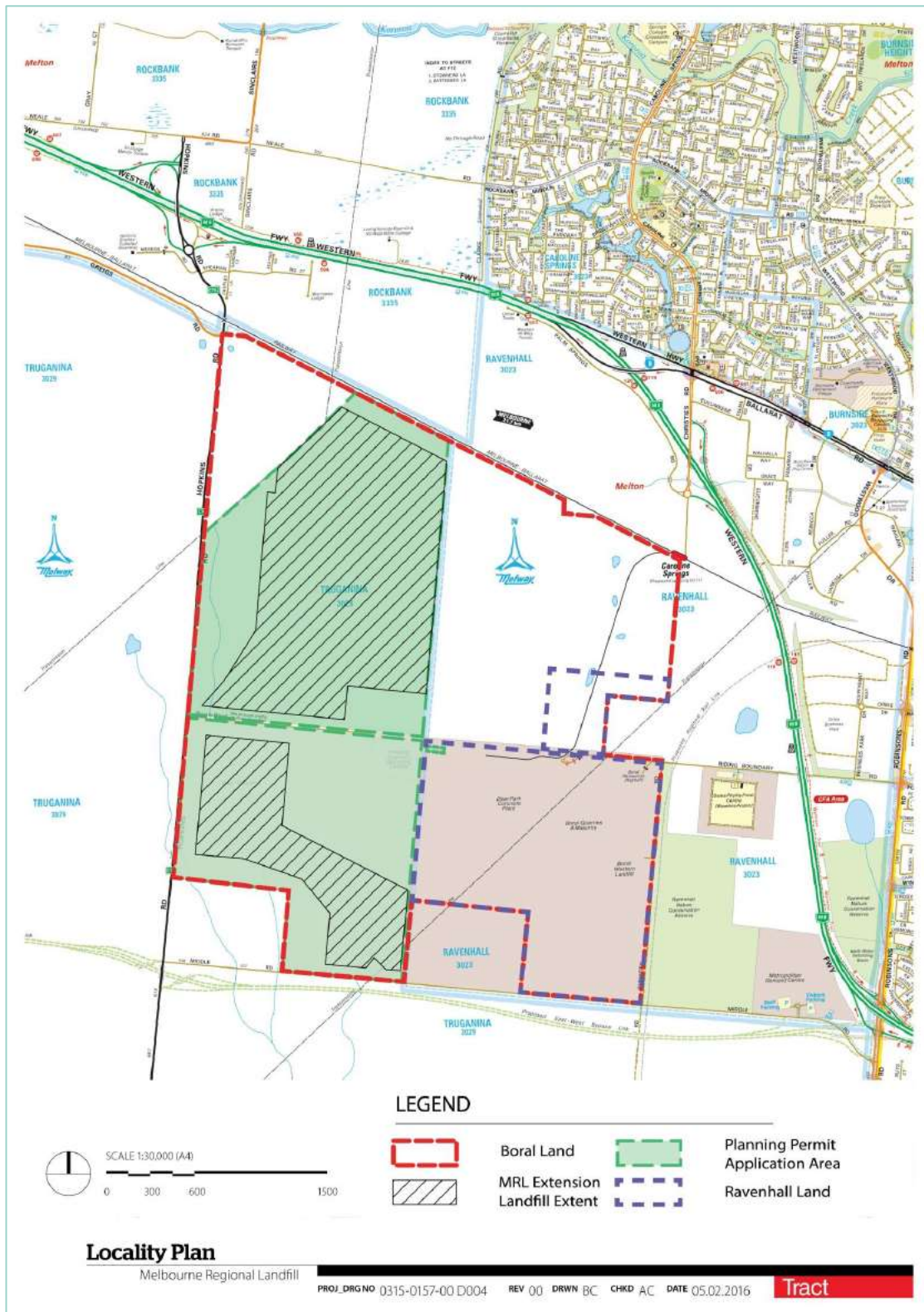


Figure 2 – Extent of the subject site showing existing landfill area (the Ravenhall land) and the proposed MRL extension areas (hatched). Source: Tract Town Planning Report “Melbourne Regional Landfill Extension – Planning permit application report”, 19 February 2016

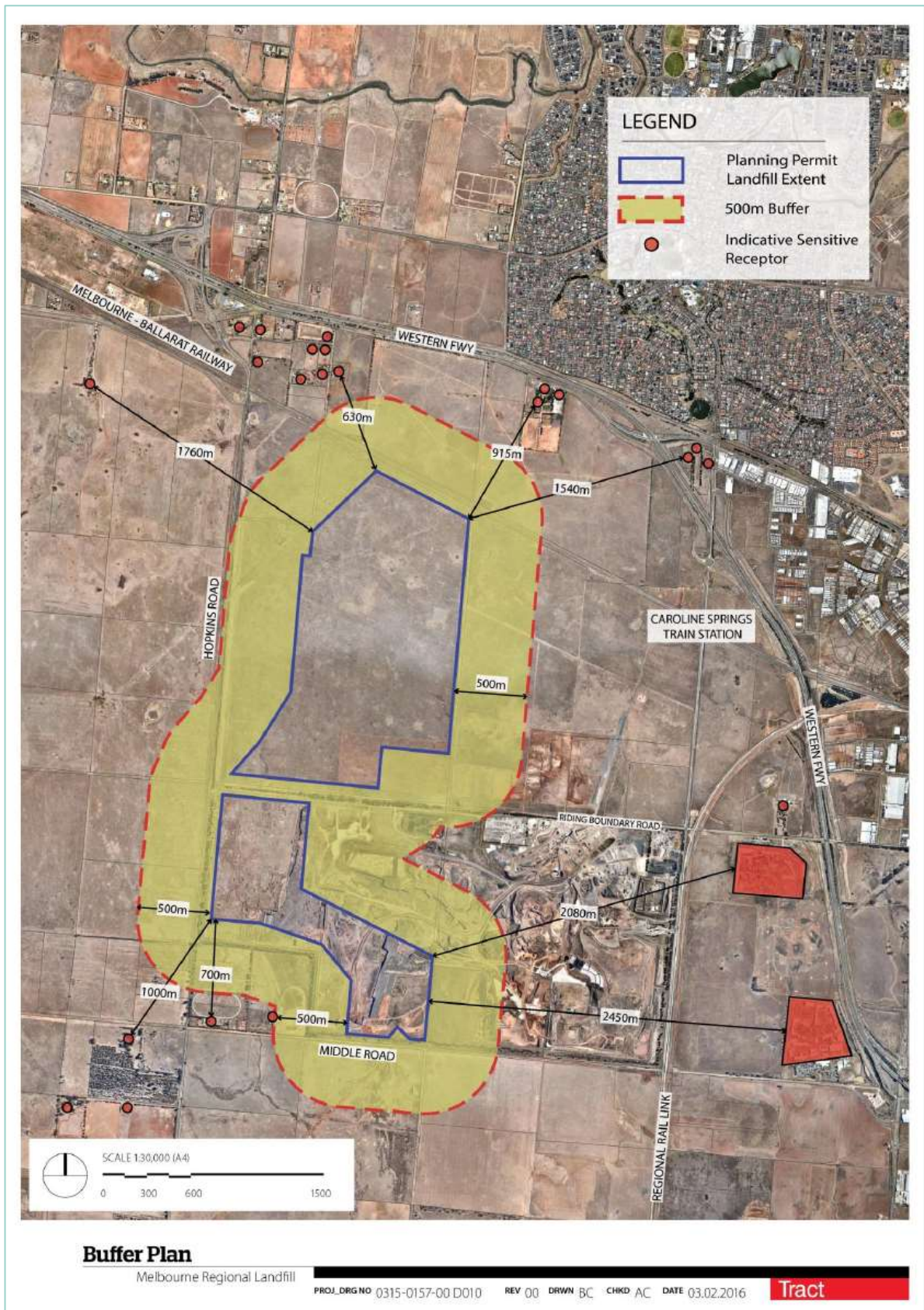


Figure 3 – Buffer Plan for proposed MRL extension - as per the planning permit application. Source: Tract Town Planning Report “Melbourne Regional Landfill Extension – Planning permit application report”, 19 February 2016

2.3. THE QUARRY AND ITS BUFFERS

40. The Boral Quarry already has approvals in place to quarry to the extent shown on **Figure 4**.
41. As I have already noted, it was first quarried in 1964 but retains significant capacity for in excess of 40+ years of extraction from the site. It is recognised as a State Significant quarry. I understand that it quarries approximately 1.5 – 2 million tonnes of rock per annum. Alongside this Boral produces asphalt and concrete to meet Victoria’s significant building and construction requirements.
42. The licensed quarry has operating buffers that extend 500m to its west, around its north-western corner and across land north of the Melbourne-Ballarat Railway line. Further buffers extend beyond the southern boundary of the site. It retains a 100m landscape buffer adjacent to Hopkins Road.
43. These apply to areas potentially affected by blasting from the quarry. These buffers are illustrated, for example, by the existing zoning plan at **Figure 5**, where the buffer to the subject site is created by Farming Zone (**FZ**) land. The retention of the FZ was used throughout Melbourne’s four Growth Corridors⁴ during the 2010 changes to the Urban Growth Boundary⁵ (**UGB**) when various land zoning changes were part of the planning process that incorporated additional land into the amended UGB. Plan 2 (Existing Features) of the PSP also illustrates the quarry buffers.
44. Land identified for future urban development was generally identified as Urban Growth Zone (UGZ), while a combination of other zones was used to provide protection for certain land. Typically, land around a quarry or a landfill operation was retained within the FZ in order to distinguish any recognised buffers and to minimise the encroachment of inappropriate development. Other land, such as conservation areas identified in the Biodiversity Conservation Strategy (BCS) was zoned Rural Conservation Zone (RCZ), such as Mt Atkinson in the Mt. Atkinson and Tarneit Plains PSP (see also **Figure 5**).
45. For the purpose of completeness, I highlight that the subject site itself was retained as Special Use Zone (SUZ) during the 2010 UGB changes.
46. I consider the 2010 UGB changes later in my assessment as part of a broader consideration of growth area planning.

⁴ As identified by the Growth Corridor Plans, 2012, State Government of Victoria

⁵ The 2010 changes to the Urban Growth Boundary were a direct result of the Melbourne @ 5 Million and Delivering Melbourne’s Newest Sustainable Communities (DMNSC) process and implemented by Amendment VC68.

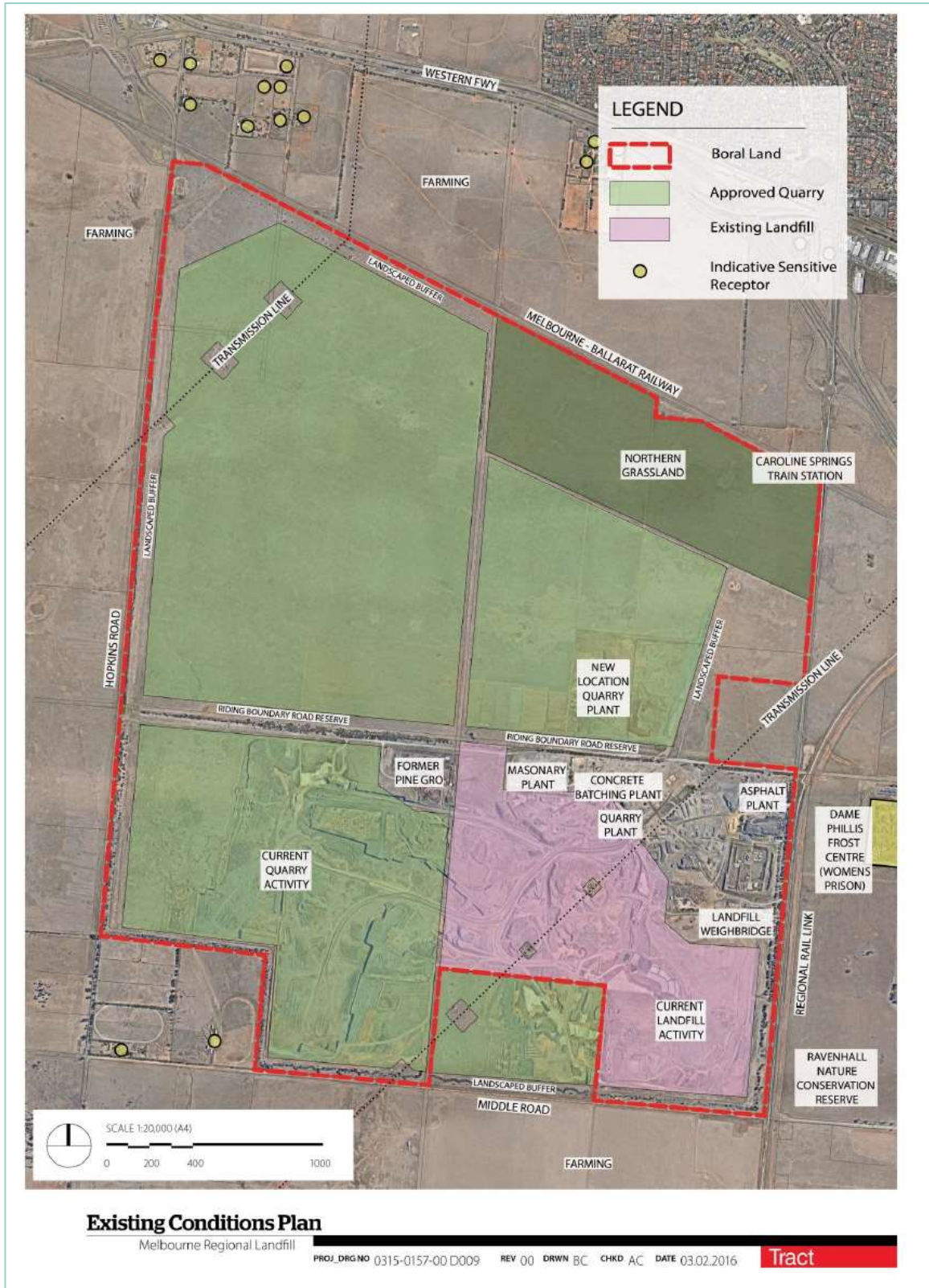


Figure 4 – Extent of approved quarry areas on the subject site. Source: Tract Town Planning Report “Melbourne Regional Landfill Extension – Planning permit application report”, 19 February 2016

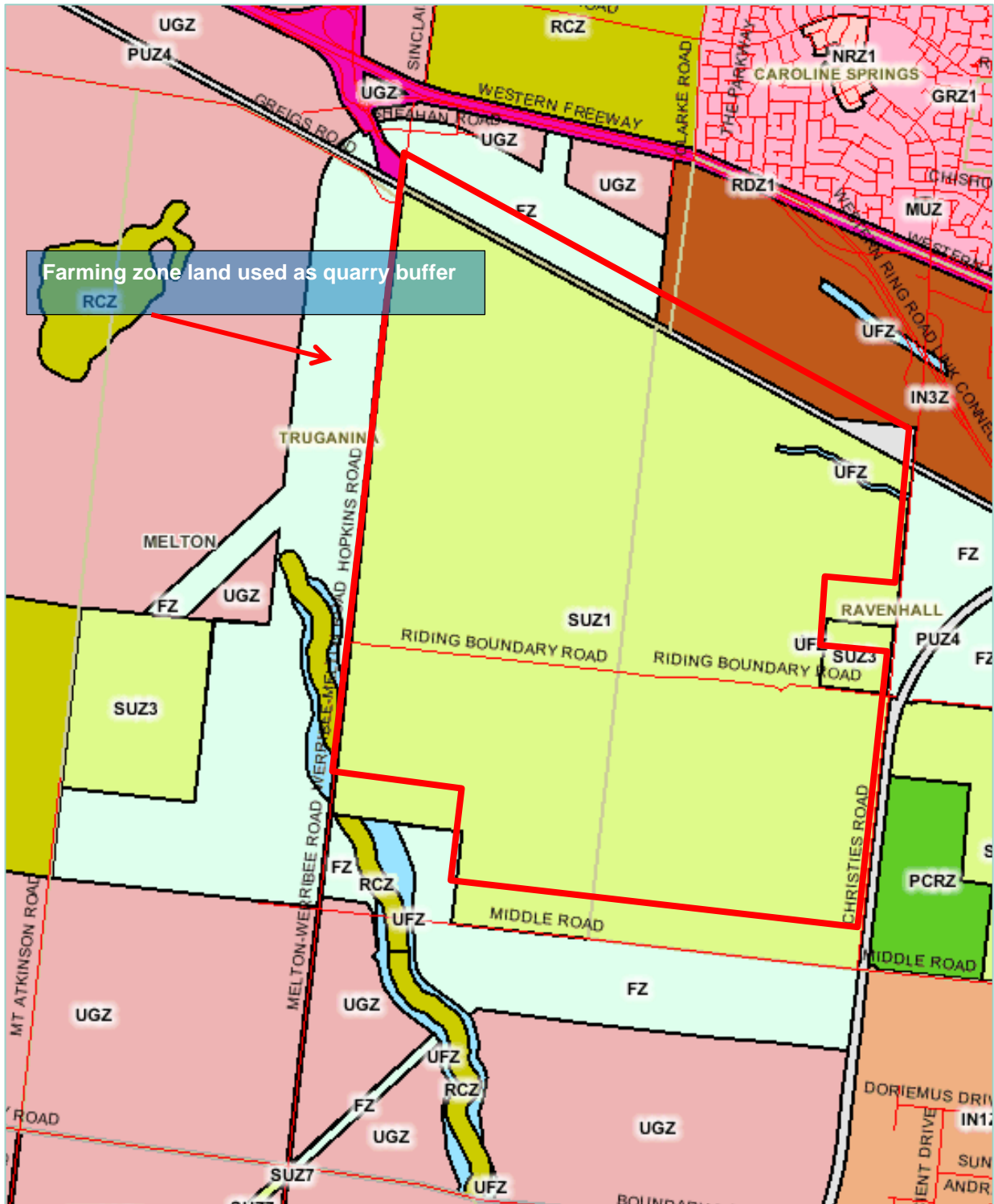


Figure 5 – Existing zoning plan of subject site (red outline) and surrounding land. Farming Zone land is generally used to outline quarry buffers as per works approval. Source: Land Channel, State Government of Victoria.

3. THE PRECINCT STRUCTURE PLAN: POLICY CONTEXT

47. I have been requested to review and comment on a number of matters that have arisen in relation to the exhibited Amendment C162 and the preparation of the Mt Atkinson and Tarneit Plains PSP. The PSP is shown on **Figure 6** below.
48. In the following section, I firstly set out the relevant context and policy considerations that I have had regard to, followed by my overall comments about the proposed urban structure and land uses detailed in the exhibited draft PSP. I will conclude with a range of key issues that I then consider in more specific detail.

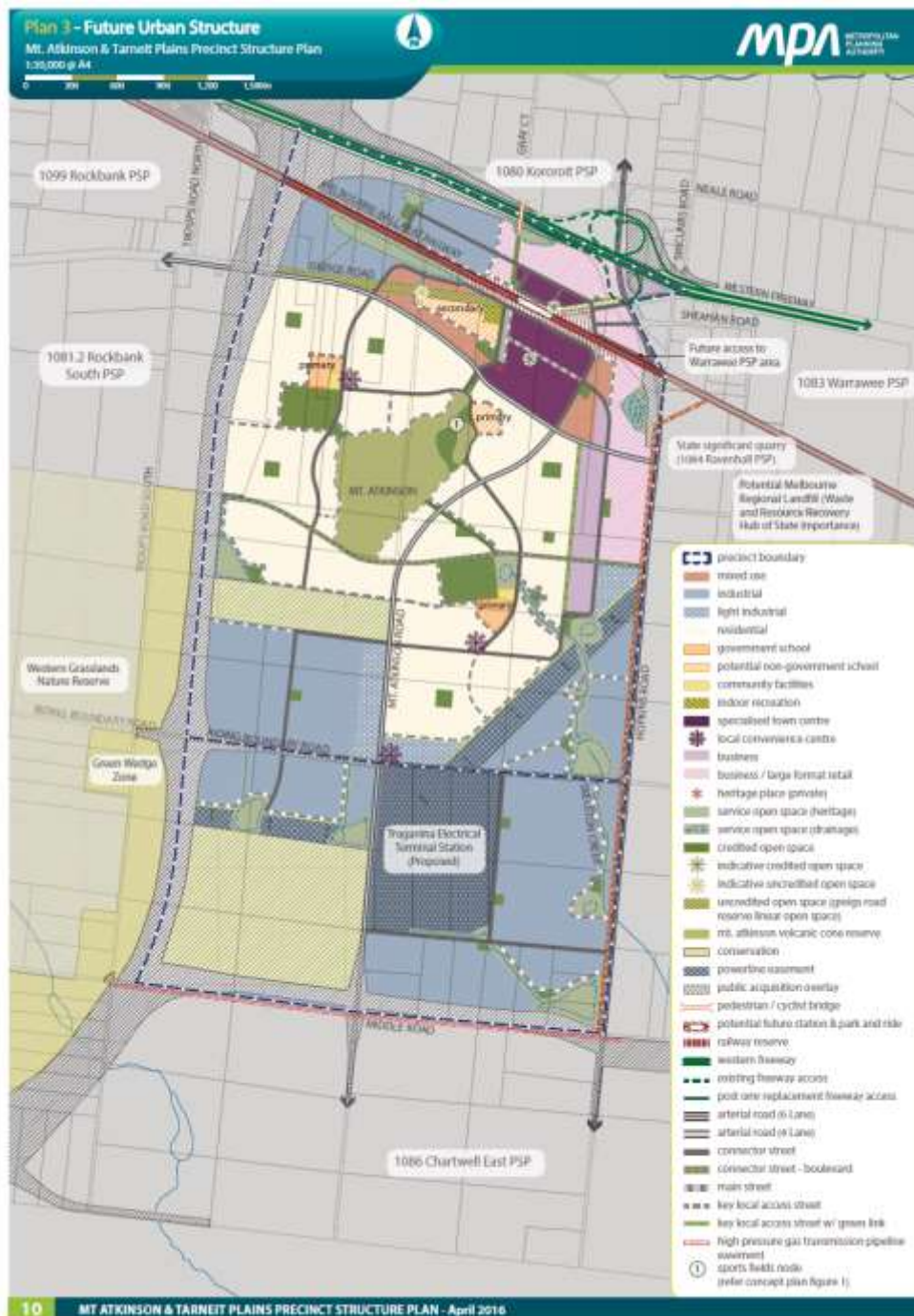


Figure 6 – The exhibited draft PSP Future Urban Structure Plan. Source: Mt Atkinson and Tarneit Plains Exhibition Draft PSP, MPA

3.1. METROPOLITAN GROWTH

49. Melbourne's population continues to grow at a strong rate, with approximately 60,000 new residents being added to Melbourne each year. With its population expected to grow to upwards to around 7.7 million by 2051⁶, Melbourne's 'Growth Areas'⁷ have an important part to play in meeting a range of needs and demands this growth will bring.
50. Population growth, housing demand and a decline in traditional manufacturing industry are some of the contributing factors that have brought about structural change across the metropolitan area. In combination, cost of living, congestion and accessibility add layers of complexity that can increase the demand for land in certain locations, such as those close to public transport, shops or in high amenity locations.
51. Melbourne's urban area has also seen outward expansion into its Growth Corridors, introducing residential development into previously rural areas. This has brought its own conflicts, where residential development is being established in close proximity to uses such as Melbourne Airport, quarries, sewerage treatment plants; waste facilities or broiler farms, which all have particular sensitivities.
52. Traditional industry is giving way to logistics, transport and warehousing uses, which because of the need for efficiency of movement, accessibility to road networks and land requirements are now being located in outer industrial areas. The designation for the future Western Intermodal Freight Terminal (WIFT) in Melbourne's West Growth Corridor being an example of this.
53. Consequently, careful planning of the growth areas is needed to secure appropriate future land supply for all of these competing needs.
54. **Plan Melbourne**, the Government's metropolitan planning strategy talks about the need to make 'better use of existing assets' as part of the broader challenge facing the growth of the City:

'Successful cities respond to growth constraints by making better use of what they already have.

This includes redeveloping underutilised and well-located urban areas to house more people and create opportunities for new investment in businesses and services. Smart technologies can improve the load capacity and efficiency of existing transport, water, waste and energy infrastructure in established urban areas. Doing more with what we have also involves planning for population growth by designating urban renewal precincts and sites that are co-located with existing and planned infrastructure'.

Source: Plan Melbourne – 'Better use of existing assets'

55. These changes inevitably lead to pressure and tension between established uses and new development, particularly when sensitive uses might be introduced alongside those that might have some potential adverse amenity impacts.
56. Consequently, Plan Melbourne establishes a spatial structure, in the form of a Structure Plan, which is supported by a range of initiatives and directives aimed at balancing growth over this period. Plan Melbourne describes this in the following way:

The plan includes a new spatial framework, the Metropolitan Melbourne Structure Plan, that establishes a new set of categories for defining the urban structure of the city's economy. The structure plan includes newly defined employment areas, including an expanded central city area and national employment clusters, where we will provide supportive planning policies and necessary infrastructure to facilitate investment and employment growth in middle and outer areas of the city

57. This urban structure is illustrated in **Figure 7** below. Of particular relevance to my report is the designation of the subject site and much of the land surrounding, including the part of the PSP land

⁶ See 'Melbourne in 2050', Plan Melbourne (page 5)

⁷ Growth Areas are the growth area municipalities of Casey, Cardinia, Hume Melton, Mitchell, Whittlesea, Wyndham – as declared by the Minister for Planning under Section 46AO of the PE Act.

as 'State Significant Industrial Precinct – future'. I will turn to this area in more detail in later sections of my report.

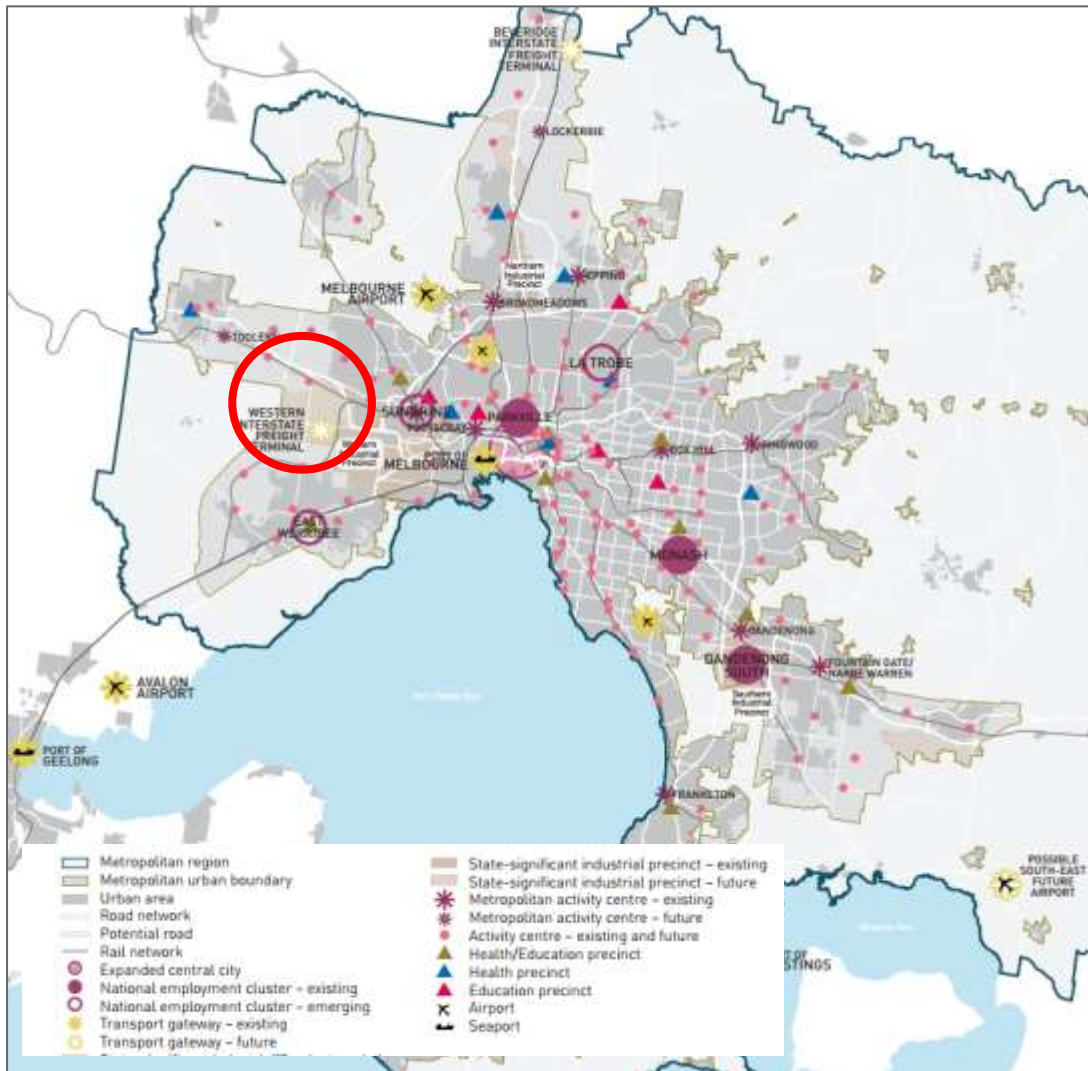


Figure 7 – Metropolitan Melbourne Structure Plan, showing the general location of the subject site and the 'State Significant Industrial Precinct – future' (beige cross-hatch): Source Plan Melbourne (Map 8)

58. In defining the key land use elements of the Structure Plan, Table 1 in Plan Melbourne then provides further written definition of these. Again, with particular relevance to matters I consider in this report, it provides the following 'strategic objective' in relation to 'State Significant Industrial Precincts':

To ensure there is sufficient strategically located land available for major industrial development linked to the principal freight network and transport gateways. They will be protected from inappropriate development to allow continual growth in freight, logistics and manufacturing investment.

3.2. DEVELOPMENT IN MELBOURNE'S GROWTH CORRIDORS

59. As I have already noted, there has and continues to be significant growth pressure on metropolitan Melbourne to accommodate an expanding population, where much of the recent burden for meeting this growth demand has been met in Melbourne's seven declared Growth Areas.⁸

⁸ As declared under Section 46AO of the PE Act.

60. Melbourne's growth area planning has continued to evolve through the precinct structure plan (**PSP**) process coordinated by the (now) Victorian *Planning Authority*⁹ which has focused on developing more integrated and coordinated planning for new suburbs, with an increasingly strong focus on delivering integrated and more self-sustaining communities.
61. Melbourne's growth areas have also provided important housing choice and affordability that have allowed Melbourne to maintain a significant competitive advantage over other major cities in Australia. In addition to this, the provision of future employment land and the creation of local jobs is an important and integral part of growth area planning.
62. In particular, creating neighbourhoods where people have easy access to jobs, services, parks, shops, healthcare and community facilities is an increasingly important part of planning, enshrined in the '*20-minute neighbourhood*' concept of Plan Melbourne.

3.3. THE GROWTH CORRIDOR PLANS & WEST GROWTH CORRIDOR

63. In my consideration of the PSP, I have been informed by the Growth Corridor Plans (**GCPs**)¹⁰, that were released by the Minister for Planning in June 2012. The GCPs identify four growth corridors across the seven growth area Councils. The City of Melton and the City of Wyndham form the West Growth Corridor. The GCPs address this Corridor via the *West Growth Corridor Plan (WGCP)*. I consider the WGCP to be the most relevant document that guides the preparation of PSPs (in this Growth Corridor) because it defines a broad strategic framework for future development that has general support of various government agencies and departments responsible for coordinating infrastructure.
64. I recognise that the WGCP is a high level strategic framework; however PSPs are expected to be prepared generally in accordance with it.
65. I note that the Growth Corridor Plans were only ever released by the Minister for Planning in 2012, but they have not been implemented by way of any reference or incorporation into the State Planning Policy Framework or Ministerial Direction. Planning Schemes continue to reference only the *Growth Area Framework Plans* of 2006, such as Clause 11.02-2 (*Planning for growth areas*) of the State Planning Policy Framework.

⁹ As of 19 August 2016 but previously the Metropolitan Planning Authority (MPA) and originally the Growth Areas Authority (GAA)

¹⁰ The GCPs followed the culmination of the UGB review commenced under the Melbourne @ 5 Million process and resulted in the '*Delivering Melbourne's Newest Sustainable Communities*' (DMNSC) process that amended the UGB in 2010 under Amendment VC68 to the Victorian Planning Provisions.

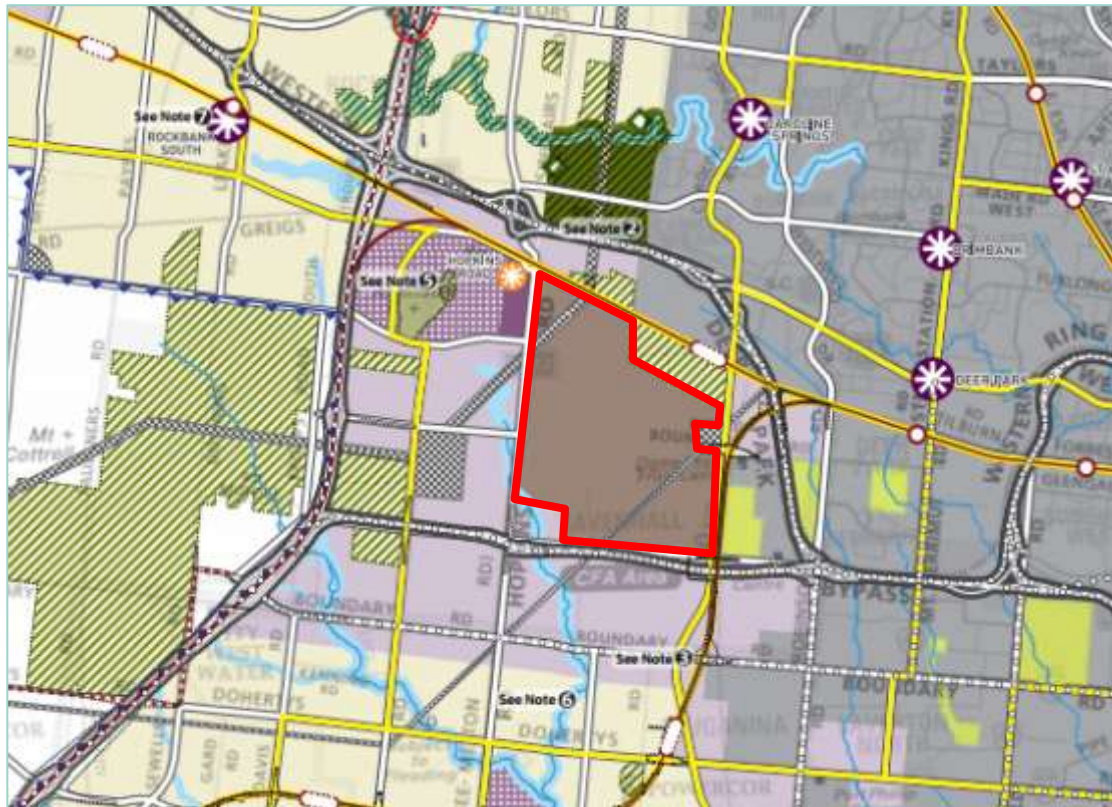


Figure 8 – Extract of the West Growth Corridor Plan, 2012. Subject site outlined in red. Source: Growth Corridor Plans 2012, Metropolitan Planning Authority.

66. The GCPs contain a set of *Principles* that informed the preparation of each Corridor Plan. The Principles are also to guide the preparation of PSPs.
67. I have also had regard to the *Community Concept Plan* in the WGCP (see **Figure 9**), which I feel is particularly useful to illustrate the location of future 'new residential districts' (residential district) and 'local neighbourhoods' along with planned Principal or Major town centres for this Growth Corridor. A residential district is comprised of a number of local neighbourhoods.
68. It is with interest that I note that the abovementioned Community Concept Plan identifies the Mt. Atkinson and Tarneit Plains PSP area as non-residential. This is consistent with the designation of the PSP area in the WGCP for primarily business and employment purposes.

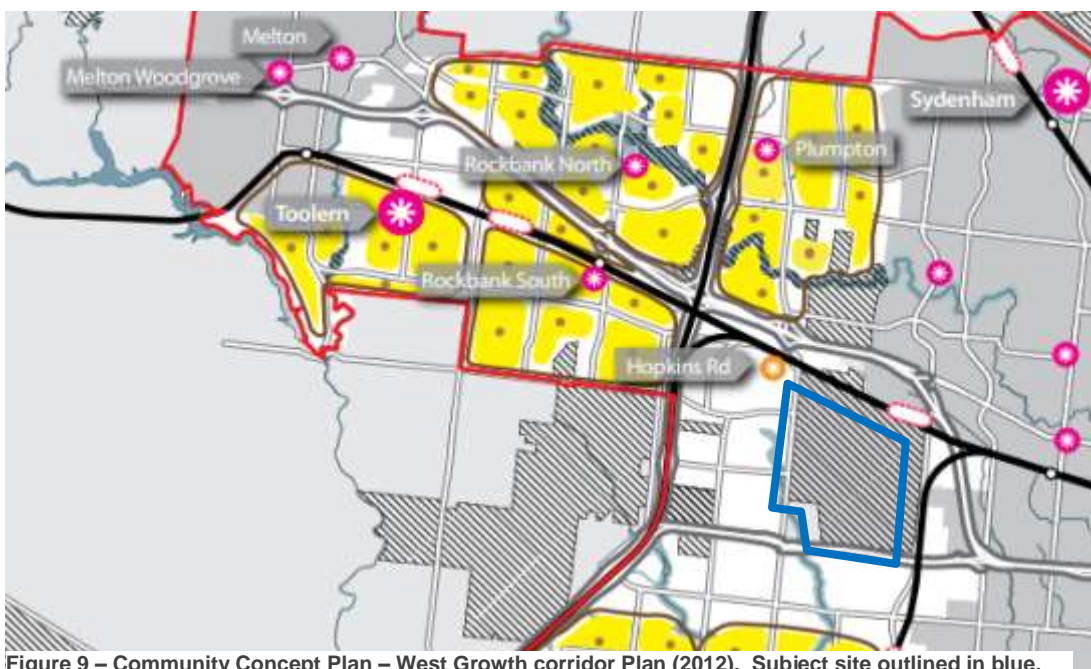


Figure 9 – Community Concept Plan – West Growth corridor Plan (2012). Subject site outlined in blue.

69. When I turn to the Employment Concept Plan within the WGCP (see **Figure 10**); I find that the PSP area is more clearly detailed and provides for industrial and 'Business with residential' whereby the *Hopkins Road Commercial Precinct*, identified by 'Key' item number 3, is overlaid onto the concept plan. I also note that the draft Corridor Plans released in November 2011 did not include any residential use within the PSP area, whereby only 'commercial' or 'industrial' uses were proposed.

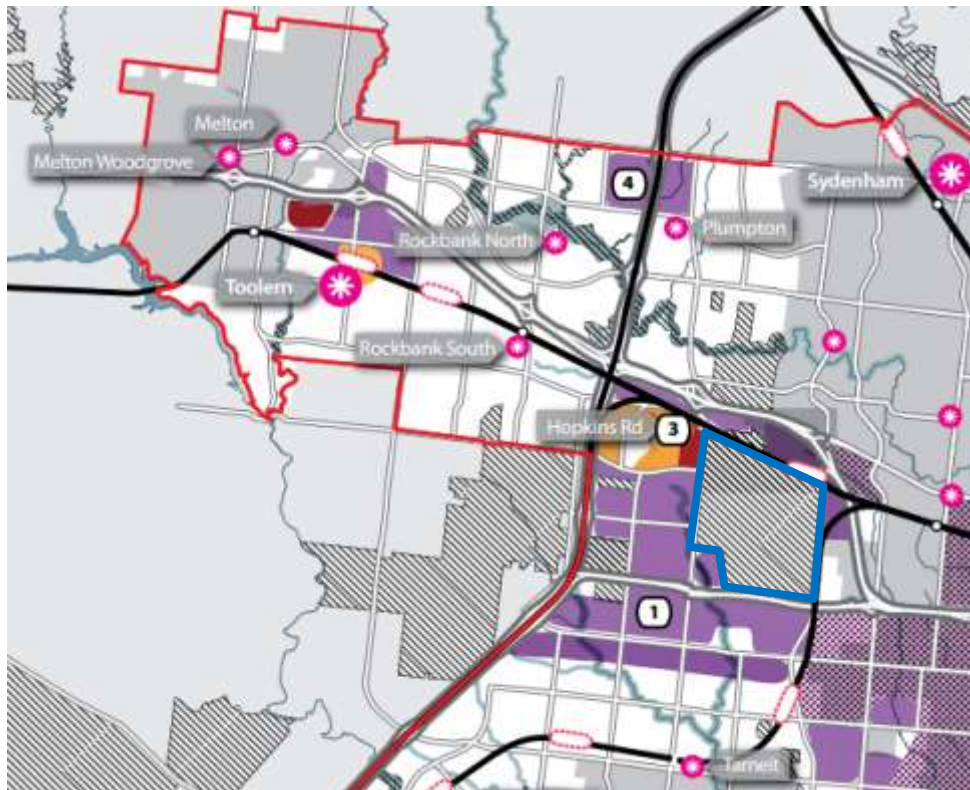


Figure 10 – Employment Concept Plan from the West Growth Corridor Plan. Subject site outlined in blue. Source: Growth Corridor Plans, 2012, MPA

70. The supporting text on page 51 of the WGCP outlines in more detail what the WGCP anticipated of the Hopkins Road Employment Precinct and in particular details the following:
- 400 hectare (gross) business precinct
 - Employment uses to include office park, research, research and development
 - Mix of conventional, medium and higher density residential
 - 120 hectare (gross) industrial precinct (southern part of employment precinct)
 - 65 hectare (gross commercial precinct)
 - A small 'Specialised Town Centre'
 - Confirmation that there were no plans in the lifetime of the Corridor Plans to deliver a train station.
71. GCP *Principle 3: Plan for Local Employment Creation* is relevant to my consideration of the PSP. The supporting text to this Principle acknowledges that employment generation in growth areas has typically lagged behind residential development with job numbers significantly below the number of workers living in an area.
72. Under this Principle, the supporting text at Section 3.3.3 outlines the principles for designated 'business precincts', such as the 'Hopkins Road Commercial Precinct'. It provides detailed discussion about what is expected of '*Employment in Business Precincts*'. The policy text is heavily weighted toward employment outcomes, noting that residential use and development is allowed in defined areas of these employment areas i.e. the areas marked on the Corridor Plans as 'business with residential'. Generally this Section of the GCP Principles places a heavy emphasis on ensuring that any residential development will not prejudice the delivery of employment in the longer term. For completeness, I have replicated Section 3.3.3 below:

3.3.3. Employment in Business Precincts

Not all commercial and office related employment is suitable for location within town centres. For example, offices linked to research and development activities may be better located in business precincts.

Business precincts identified on the Growth Corridor Plans are large flexible multi-use areas that provide for a wide range of employment opportunities. They are located so as to have excellent access to the arterial road and Principal Public Transport Network and a local resident workforce.

The Growth Corridor Plans generally locate such precincts adjacent to town centres or along PPTN routes, so as to facilitate the provision of public transport access as employment levels grow over time. The integration of public transport in these business precincts is considered to be an important component of any future PSP development and delivery.

Business precincts are expected to deliver more intensive forms of employment generating uses in comparison to industrial areas. They will accommodate a wide range of employment generating uses including service industry, office and commercial activity, and research and development and some bulky goods (restricted retail).

A range of supporting ancillary uses will be expected to co-locate in local scale 'Specialised Town Centres'. These centres will have a relatively small retail function, but will provide locations for specialist business services, conferencing, accommodation, recreation, entertainment etc. Co-location of these types of activities within a Specialised Town Centre will help to ensure the most efficient provision of infrastructure and allow for multi-purpose trips. Specialised Town Centres should be highly accessible by public transport.

Business precincts are expected to deliver minimum job densities in the range of 30-40 jobs per gross hectare, and this employment range will be used as a minimum guide for the preparation of PSPs in these locations and should be exceeded where possible, particularly on sites of high strategic importance.

In some locations (as identified on the plan), these precincts may also include residential, cultural, recreational and civic uses as part of a broader mix of activities which support the overall employment activities. In such circumstances, these business precincts are expected to deliver minimum job densities in the range of 15-20 jobs per gross ha, and this employment range will be used as a minimum guide for the preparation of PSPs in these locations.

Business related activities are typically expected to be the predominant land use in these locations. Preserving the potential for these precincts to deliver employment outcomes is the most important planning and development outcome. This should be the principal measure guiding planning and development decisions in these locations.

Future detailed planning for these precincts will therefore need to demonstrate that employment provision is based on realistic demand over the medium to long term.

Whilst it might be expected that residential and non-core employment uses could be delivered within some of these precincts (as shown on the Growth Corridor Plans) in the shorter term (and in advance of the higher order employment activities), sufficient land must be protected to ensure an appropriate supply of strategically located land is preserved over the entire duration of the plan (e.g. 30-40 years).

Any proposals for land uses other than employment related uses will need to demonstrate that the overall objective for the land to deliver significant employment generating outcomes for the local area and the wider corridor would not be prejudiced.

Residential areas should be designed to complement and enhance the area for employment activities.

(Note: **My emphasis**)

73. Acknowledging the WGCPs designation of a 'Specialised Town Centre' in the Mt Atkinson and Tarneit Plains PSP area and the reference within the Employment in Business Precincts section of the Chapter 3 of the WGCP, I turn to the description of what a 'specialised town centre' is expected to be, as set out on page 16 of the GCP:

Specialised Town Centres may be appropriate in a number of 'Business' precincts. These Centres will have a relatively small retail function, but will provide locations for specialist business services, conferencing, accommodation, recreation (e.g. gym), entertainment etc. Co-location of these activities within a Specialised Town Centre will help to ensure the most efficient provision of infrastructure and allow for multi-purpose trips. They should be highly accessible by public transport

Chapter 3 of the Corridor Plans provides a series of planning principles that guided the preparation of the various corridor plans including the WGCP. In discussing Planning for Landfills (Section 3.7.5) the report states:

74. *The Growth Corridor Plan also ensures that approved and operational landfills referred to in The Metropolitan Waste and Resource Recovery Strategic Plan and potential organic waste treatment/recovery are protected from encroachment by sensitive uses. Any development within 500m of putrescible landfill sites will be subject to an environmental audit to ensure that any potential landfill gas migration is mitigated. Some existing quarries may also have the potential to be utilized for landfill purposes in the future upon completion of extraction of the resource at the site. In this case buffer requirements will also need to be taken into account when planning these PSP s to ensure appropriate land uses and separation distances are maintained.*
75. The final part of the WGCP provides discussion of the existing quarry and landfill facilities on the subject site and contains the following at Section 4.7 *Other Infrastructure*:

The West Growth Corridor Plan recognises and protects a range of existing and prospective infrastructure facilities including a site identified for a future electricity terminal station at Mount Cottrell, between Boral's Deer Park quarry and the OMR and a number of transmission easements.

It ensures that approved and operational quarries are protected from encroachment by sensitive land uses and identifies industrial or commercial development activities adjacent to existing Holcim and Boral quarry sites within/adjacent to the UGB.

On that basis, these precincts could be rezoned from Farming Zone to Urban Growth Zone. Any buildings proposed within 200m of the title boundary of these quarries will be subject to a risk assessment to be undertaken at PSP stage, to ensure that the impact of rock blasting is acceptable.

The Growth Corridor Plan ensures that approved and operational landfills referred to in the Metropolitan Waste and Resource Recovery Strategic Plan and potential organic waste treatment/ recovery are protected from encroachment by sensitive uses. Any development within 500m of the putrescible landfill sites at Werribee and Deer Park will be subject to an environmental audit to ensure that any potential landfill gas migration is mitigated.

76. Based on a combination of the WGCP and its land use designations and the supporting concept plans and policy text outlined the GCP, there is a clear strategic planning intent to deliver a 'predominantly' employment precinct in the PSP area. I consider the exhibited PSP against this intent later in my report.

3.4. PSP GUIDELINES

77. I have also had regard to *the Precinct Structure Planning Guidelines (PSP Guidelines)*, as revised in 2013.
78. They set out seven (7) 'Objectives' and seven (7) 'Elements' that should inform the preparation of a PSP. With each Element, a set of 'Relevant Standards' are detailed that a PSP is expected to respond to.
79. The PSP Guidelines establish the purpose of PSP planning and includes the following at 1.0 that describes what a PSP is:

Precinct Structure Plans (PSPs) are master plans for whole communities of generally up to 30,000 people and are designed to create balanced new communities rather than just housing estates. They lay out roads, shopping centres, schools, parks, housing, employment, and connections to transport, which are fundamental to making Victoria's growth areas great places to live and work, both today and for future generations.

80. While I have considered all of the *Objectives* in the PSP Guidelines, the following are relevant to my consideration of the overall urban structure and the location of Local Town Centres and Local Convenience Centres in the exhibited PSP:

Objective 1: *To establish a sense of place and community*

Objective 3: *To create highly accessible and vibrant activity centres*

Objective 4: *To provide for local employment and business activity*

3.5. OTHER RELEVANT POLICY CONSIDERATIONS – WASTE AND RESOURCE RECOVERY

81. Relevant to the matters I have been specifically asked to consider, I have also reviewed the complex legislative and strategic policy framework associated to waste and resource recovery in Victoria and in particular how it is applied in the metropolitan area covering the PSP area and the subject site.

82. I find in summary that the following are relevant to my consideration and assessment of the key matters that relate to the proposed urban structure of the PSP in so far as they relate to the use of the subject site:

- The Environment Protection Act 1970 (the **EP Act**) – primary legislation for waste management in Victoria
 - a. Policy – “Getting full Value”
 - b. Statewide Waste and Resource Recovery Infrastructure Plan
 - c. (Draft) Metropolitan Waste and Resources Recovery Implementation Plan (MWRRIIP) – June 2015
- Best practice environmental management: ‘Siting, design, operation and rehabilitation of landfills’ Publication 788.3*, August, 2015, by EPA
- *Assessing planning proposals near landfills*, EPA Publication 1625, June 2016 (Draft guideline)
- Victorian Planning Provisions (VPPs) and the State Planning Policy Framework
 - a. Clause 19.03-5- *Waste and Resource Recovery* - including a need for planning permit decisions to be consistent with the Strategic Plan prepared under the EP Act.
 - b. Decision Guidelines of Clause 65 in all planning schemes

83. I consider waste and recovery policy and the relevant policy framework throughout the following sections of my report, as relevant.

3.6. STATE PLANNING POLICY FRAMEWORK

84. In addition to the above, I have also considered the State Planning Policy Framework set out within the Victorian Planning Provisions (VPPs). I find the following to be relevant to the matters I have been asked to consider:

85. Clause 10.02 (Goal) Explains the overall goal of the SPPF in fostering the objectives of planning in Victoria, which include: ‘To secure a pleasant, efficient and safe working, living and recreational environment for all Victorians and visitors to Victoria.’

86. Clause 10.04 (Integrated decision making) which requires that ‘planning authorities and responsible authorities should endeavour to integrate the range of policies relevant to the issues to be

determined and balance conflicting objectives in favour of net community benefit and sustainable development for the benefit of present and future generations.

87. Clause 11 (Settlement) details the various outcomes that planning is seeking to consider and, ultimately, balance in settlement planning, such as PSPs:

Settlement

Planning is to anticipate and respond to the needs of existing and future communities through provision of zoned and serviced land for housing, employment, recreation and open space, commercial and community facilities and infrastructure.

Planning is to recognise the need for, and as far as practicable contribute towards:

- *Health and safety.*
- *Diversity of choice.*
- *Adaptation in response to changing technology.*
- *Economic viability.*
- *A high standard of urban design and amenity.*
- *Energy efficiency.*
- *Prevention of pollution to land, water and air.*
- *Protection of environmentally sensitive areas and natural resources.*
- *Accessibility.*
- *Land use and transport integration.*

Planning is to prevent environmental problems created by siting incompatible land uses close together.

Planning is to facilitate sustainable development that takes full advantage of existing settlement patterns, and investment in transport and communication, water and sewerage and social facilities.

(Note: My emphasis)

88. Clause 11 also deals with a range of key areas affecting settlement planning, which amongst others include:
- Clause 11.01: *Activity Centres*, including *Activity Centre Planning* (Clause 11.01-2)
 - Clause 11.02: *Urban Growth*, including *Supply of urban land* (Clause 11.02-1) which includes the following strategy:

Maintain access to productive natural resources and an adequate supply of well-located land for energy generation, infrastructure and industry.
 - Clause 11.02-2: *Planning for Growth Areas*
 - Clause 11.02-3: *Structure Planning*
 - Clause 11.04: *Metropolitan Melbourne*, including *Delivering Jobs and Investment* (Clause 11.04-1)
 - Clause 11.04-5: *Environment and water*
89. Clause 13 (*Environmental risks*) requires planning to adopt a 'best practice environmental management and risk management approach which aims to avoid or minimise environmental degradation and hazards'.
90. Clause 13.04–2 (Air quality) includes the strategy to: 'Ensure, wherever possible, that there is suitable separation between land uses that reduce amenity and sensitive land uses.' It refers to the Recommended Buffer Distances for Industrial Residual Air Emissions (now the '*Recommended separation distances for industrial residual air emissions*').

91. Clause 17.02-1 (Industrial land development) states: '*Avoid approving non-industrial land uses, which will prejudice the availability of land for future industrial requirements, in identified industrial areas*'. Would apply to land designated in the PSP area as being of State Significant Industrial Precinct – future (see separate discussion in this report about Plan Melbourne)
92. Clause 17.02–2 (Design of industrial development) Addresses industrial land addresses separation and buffer areas between sensitive uses and offensive or dangerous industries and quarries.
93. Clause 19.03–5 (Waste and resource recovery) Includes a strategy to: 'Ensure buffers for waste and resource recovery facilities are defined, protected and maintained.' Includes as policy guidelines both the Landfill WMP and the Landfill BPEM.

4. PARTICULAR COMMENTS ABOUT THE DRAFT FUTURE URBAN STRUCTURE

94. Plan 3 of the exhibited PSP illustrates what is referred to as the 'Future Urban Structure' or **FUS**, as shown in **Figure 6** earlier in this report.
95. Overall, having considered the broader strategic context in which the PSP has been prepared and the Vision (page 11 of the PSP) that has been established for it, I make the following high level comments in relation to the overall proposed Future Urban Structure:
96. At a high level, I recognise that there appear to be a number of elements that have influenced the draft urban structure. These include:
- Drainage and waterway corridors
 - Conservation areas
 - Mt. Atkinson Volcanic cone and slope topography surrounding it
 - Melbourne – Ballarat railway line & beyond it the Western Freeway
 - Proposed Outer Metropolitan Ring (OMR) alignment
 - High pressure gas pipelines
 - Existing and state significant quarry and landfill operations on adjoining land
 - 500m and 200m buffers related to quarry use and blasting that partly or predominantly fall across the PSP area
 - The identification of part of the PSP within an area of future state significance as an industrial location
 - Transmission lines and the proposed Truganina Electrical Terminal Station
 - Lack of existing train station servicing the precinct
97. Of the above and with regard to the specific matters I have been asked to consider, I note in particular that the existing state significant quarry and landfill facilities on the land to the east of Hopkins Road and the high pressure gas pipeline that runs south-north just alongside the eastern boundary of the PSP combine to create what I understand to be a 571m wide corridor where careful consideration about the introduction of 'sensitive uses' is required. I will address the issues associated with these uses and the gas pipelines along with the term 'sensitive use' separately and in more detail later in my report.

4.1. LAND USES AND CONSISTENCY WITH STRATEGIC POLICY

98. Having already acknowledged the intent of the WGCP that the PSP area be an employment focused outcome, the Summary Land Budget at Section 2.4 of the PSP indicates the following land use outcomes (figures and terms as presented in the PSP):
- Gross Development Area of 1531.68ha
 - Net Developable Area of 896.89ha or 59.56% of land is developable
 - Net developable area for residential development (NDAR) of 408.18ha or 26.65% of (total) land
 - Net developable area for employment (NDAE) of 488.71ha or 31.91% of (total) land area
99. I note that the figures presented by the PSP are somewhat misleading as the actual percentage (%) of residential development of the overall net developable area is 45% of the land that could be developed. Employment uses occupy the balance at 55%.
100. As I have demonstrated in my review of the relevant GCP policy context, the clear intent for the PSP area is a 'predominantly' employment based land use outcome.

101. I accept that there are a number of ways that employment outcomes can be achieved and it would be too simplistic simply to reduce a determination about how this is achieved down to a percentage of the net developable area made available for employment. Employment density and employment type are also very relevant considerations.
102. In this regard, I have considered the findings of the PSP background report by Jones Lange LaSalle¹¹ (JLL) that considered the commercial and employment make-up of the PSP. In it, I note that it found a number of challenges would face the PSP from an employment perspective, such as the ability to decentralise higher intensity jobs from central Melbourne, current take up trends of industrial land (e.g. JLL estimated at 20 year supply on current take up rates) and low job densities associated with uses such as bulky goods retailing and industry.
103. Nonetheless, Plan Melbourne has placed a heavy emphasis on the notion of the 20 minute neighbourhood and increasing employment opportunities in the middle and outer ring suburbs of metropolitan Melbourne, supported by Clause 11.04 of the SPPF for example.
104. The Growth Corridor Plans themselves acknowledge a broader problem across the growth areas of low or delayed delivery of employment despite significant population growth.
105. The GCPs, in my opinion, rightly take a long term strategic view and put in place policies to try and protect important employment and industrial land for the future over the entire lifetime of the plan i.e. 30- 40 years rather than meeting the next 10 or fifteen years of demand. In this regard, I note for example the following policy in Section 3.3.4 Chapter 3 of the GCPS which seeks to protect industrial land over the entire lifetime of the GCPs (30-40 years):
- Safeguarding strategically located industrial land over the entire lifetime of the Growth Corridor Plans is critical because the opportunity to 'retro-fit' industrial precincts into any Corridor is not possible once sensitive land uses (e.g. residential) are allowed to establish.*
106. I note that Plan Melbourne has designated much of the PSP area as a 'State Significant Industrial Precinct – future' as per Plan 8 – Metropolitan Melbourne Structure Plan, as per **Figure 11**. The hatched area illustrated on the extract of the Structure Plan approximately accords with the industrial land use designation illustrated on the WGCP.
107. I am unaware of any amendments that have been made to the Growth Corridor Plans that may have formally altered the balance of land uses identified for industrial purposes on the PSP area. Similarly, while I understand that Plan Melbourne is being refreshed, Ministerial Direction 9 – *Metropolitan Planning Strategy*¹², obliges planning scheme amendments to be prepared with regard to the Metropolitan Planning Strategy. In particular Clause 4 of the Direction states:

Requirements to be met

4. In preparing a planning scheme amendment a planning authority must:

- *Have regard to the Metropolitan Planning Strategy.*
- *Include in the explanatory report discussion of how the amendment addresses the following matters:*
 - *What aspects, if any, of the Metropolitan Planning Strategy are relevant?*
 - *How does the Metropolitan Planning Strategy affect the amendment?*
 - *Is the amendment consistent with any directions and policies in the Metropolitan Planning Strategy?*
 - *Does the amendment support, give effect to or assist the implementation of the Metropolitan Planning Strategy or can it be reasonably modified to do so?*
 - *Will the amendment compromise the implementation of the Metropolitan Planning Strategy?*

¹¹ Jones Lang LaSalle background technical report prepared on behalf of the MPA: *Mt Atkinson and Tarneit Plains: Commercial and Industrial Land Review*, April 2015

¹² Ministerial Direction No. 9 – Metropolitan Planning Strategy, 8 October 2002 and Amended 30 May 2014

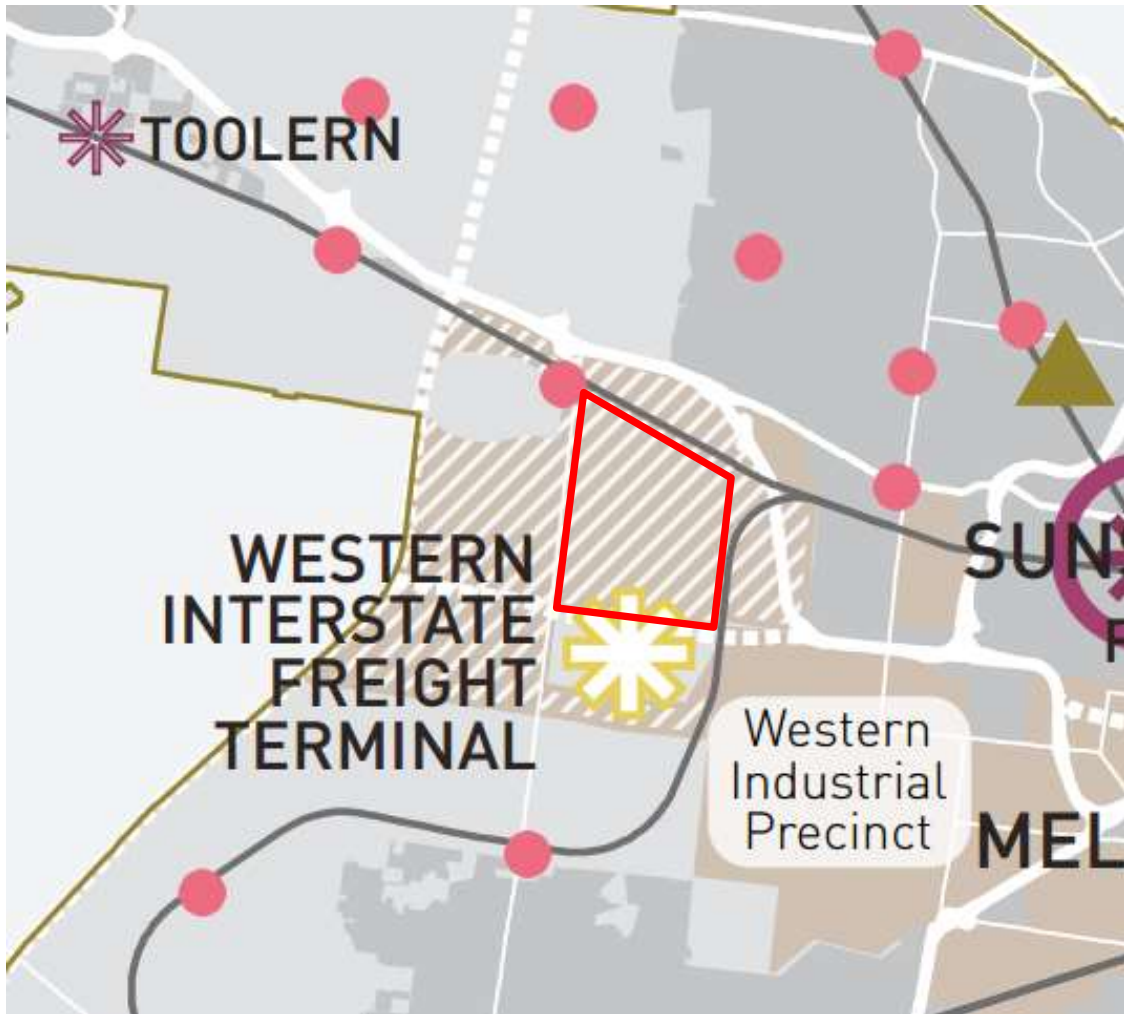


Figure 11 – Extract of Plan 8 – *Metropolitan Melbourne Structure Plan* illustrating the State Significant Industrial Precinct – future (hatched). Subject site is outlined (approximately) in red. Source Plan Melbourne, 2014, State Government of Victoria.

108. I have read the exhibited Explanatory Report prepared by the MPA and find it does not satisfactorily respond to Ministerial Direction No. 9. I find that the intent of Plan Melbourne for much of the PSP area (i.e. State Significant industrial precinct) versus the land use outcomes illustrated in the exhibited draft PSP to be different in the extent of the industrial areas and I would expect, as a minimum, a substantive reason why. Instead, the increase to residential area is explained by the need to establish a ‘critical mass’ for a residential community. I do not find this a sufficiently compelling reason to lose future industrial land identified as state significant, particularly as the Growth Corridor Plans state¹³ that a population of between 8,000 and 10,000 is sufficient to support a new community (the PSP proposes a population of at least 19,000 people). The relevant text from 3.1.1 of the GCPs is replicated here:

Typically, a neighbourhood of approximately 8,000 to 10,000 people is sufficient to support a good range of local service provision, including local shopping, primary health and education, community and recreation services.

109. Plan Melbourne, under the heading *Metropolitan Melbourne Structure Plan – The City Structure Explained* provides the following discussion of ‘places of state strategic significance to Victoria:

PLACES OF STATE STRATEGIC SIGNIFICANCE TO VICTORIA include the expanded central city, national employment clusters, metropolitan activity centres, transport gateways, state-significant industrial precincts and health/education precincts. These are places that all Victorians have an

¹³ See Section 3.1.1 under Principle 1 (Create Diverse and Vibrant New Communities) of the GCPs.

interest in achieving their potential, due to their city-shaping role and their existing and potential contribution to productivity and economic growth.

(Note: My emphasis)

110. Overall, I find there to be inconsistencies between the policy intent of Plan Melbourne and the GCP versus the land use outcomes being proposed in the exhibited draft PSP. I do not say that the proposed outcomes are wrong per se, however; the strategic reasons for the change are not well articulated or communicated in the PSP or the accompanying documentation of Amendment C162. For these reasons I find it challenging to satisfy myself that the PSP is consistent with relevant strategic planning policy intent, particularly in relation to an identified industrial area of 'State Significance' and why standard residential development now occupies a considerable portion of this employment area. Such a change of direction provides little confidence in the purpose of GCP planning.

4.2. LAYOUT OF THE PSP

111. Notwithstanding the above concerns about the strategic basis for the exhibited PSP in its current format, I find, overall that the general make-up of the PSP and its layout to be generally sound in terms of the location of key features such as local convenience retail centres or parks for example.
112. The PSP is challenged by a range of constraints (existing and future) that I have already outlined and I find the PSP to be a somewhat uncomfortable and compromised outcome for the varied range of uses it proposes.
113. The significant constraints, largely man-made, that do or will exist on every border of the PSP area make it extremely challenging to derive a well-balanced and connected outcome. The future residential community it will find itself relatively isolated by the nature of the constraints that surround it, notably the future OMR-E6 alignment, the Melbourne-Ballarat railway line, the quarry and landfill facility to the east and the combination of transmission lines, terminal station and industrial areas to the south of the PSP area. In my experience, these type of constraints typically also create 'mental' barriers to connectivity i.e. they present challenges to movement (real or perceived) by their impact on permeability, their physical form and/or scale.
114. Conversely, the proximity of the site to some major regional road transport infrastructure, such as the Western Freeway and the future OMR-E6 may well provide the PSP with a certain level of commercial attractiveness. This was certainly borne out in the JLL background report.
115. Given the constraints that limit the ability to connect the future residential neighbourhood into a broader residential district it may, as JLL suggested in its report, lead to retention of higher than normal levels of retail expenditure within the PSP area that could help to create a strong town centre. It will be important that many of the essential community services and facilities are also provided early to help create a self-sustaining community and help to avoid a sense of separation.
116. The town centre and broader public transport connectivity appears somewhat reliant upon the delivery of a 'potential future train station and park and ride' facility; however, the WGCP clearly indicates that this cannot be expected in its lifetime e.g. 30-40 years. Judging by the experience of Caroline Springs, this may not be an unrealistic outcome, yet the actual development of the PSP, including the town centre on either side of the railway line may give greater urgency to encourage delivery of a train station earlier.
117. Overall, I find the strategic basis for the proposed PSP, in its current form, to be inconsistent with the intent of the both the Growth Corridor Plans and Plan Melbourne based on the extent of residential development and the introduction of a major town centre.
118. Notwithstanding this, the key issue that I have identified is the proximity of the PSP area to the state significant Deer Park Quarry and the MRL facility on the same site that is identified as being of State Importance. The key planning issues are the potential impact on their ability to continue operating and whether the interface issues have been adequately addressed by the PSP – the agent of change. I consider this in more detail in the following section.
119. Noting the extent to which residential development occupies the exhibited draft PSP area compared to that shown on the GCPs, this also increases the extent to which a sensitive use will encroach closer to the existing quarry and landfill uses on the subject site. Notwithstanding best practice operation and management of these facilities in the future, including implementation of correct

buffers to help limit any potential conflicts, I find that it will be inevitable that the introduction of a new residential community in close proximity to these existing facilities will most likely give rise to potential complaints particularly as local community sensitivities change over time. This has, however; long been part of the challenge of managing urban growth that metropolitan planning strategies have grappled with.

120. The following sections of my report will consider the strategic planning issues relevant to the interface between the PSP area and the subject site.

4.3. HAS THE PSP ADDRESSED EXISTING ADJOINING USES: BUFFERS & SEPARATION DISTANCES

121. There are a number of existing land uses and major utility infrastructure items that have influenced the preparation of the exhibited draft PSP, as acknowledged in the MPA's Background Report¹⁴ (**MPA Background Report**).
122. Notably and with regard to the particular matters I have been asked to consider, the following are relevant:
- The existing Deer Park Quarry (operated by Boral) - and its identification as a resource of State Significance
 - The existing Melbourne Regional Landfill (MRL) – also identified as being of State Importance
 - The existing high pressure gas pipeline (operated by APA Gas Net)
123. In addressing these matters, the MPA Background Report indicates, in summary, that the exhibited draft Schedule 9 to the UGZ identifies restrictions on use and development within the quarry sensitive use buffer along with particular referral requirements to relevant authorities.
124. With regard to the MRL facility, the background report (pages 10 and 11) sets out how the draft exhibited PSP has responded to it:

Melbourne Regional Landfill

The potential future Melbourne Regional landfill expansion is not anticipated to impact on the development of the PSP. The applied zoning and Schedule 9 to the UGZ responds to the potential for adverse amenity from odour from any expanded future landfill by establishing a distance of at least 500m from residential uses to the landfill site. This is expected to be complemented by a 500m distance containing no putrescible fill within the landfill site itself to ensure 1km is established between the landfill and residential uses. Further, a planning permit is required for uses pursuant to Provision 52.10 (Uses with Adverse Amenity potential) within the applied Commercial 2, Industrial 1 and Industrial 3 Zone as per Schedule 9 to the UGZ.

The PSP assumes all landfill gas migration will be retained within the landfill site and that any buffers to mitigate landfill gas migration required by the Best Practice Environmental Management (BPEM) for Siting, Design, Operation and Rehabilitation for Landfills are internalised on the landfill site. Therefore no additional planning controls or referrals have been included in the PSP to mitigate landfill gas migration.

125. This statement is, in fact, potentially inaccurate. The indicative buffer plan included at **Figure 4** of my report indicates landfill gas buffers sitting across part of the PSP area.
126. Relevant to my consideration of the PSP, I believe that the long established nature of the quarry, its potential extraction lifespan alongside the concurrent use of the land since 1999 for landfilling purposes and its planned expansion establish a number of very important strategic planning issues that need careful consideration.
127. The quarry and the landfill facility are identified as being of State Significance and State Importance respectively. They have significant identified future capacity to be quarried and, in turn to provide metropolitan Melbourne with landfill capacity as part of meeting its waste and resource recovery needs.
128. Despite this, the proposed MRL extension outlined in the planning permit application indicates the part of the buffer requirements have been internalised on the subject site, meaning that the potential landfill capacity of the subject site has been significantly reduced.

¹⁴ Mt Atkinson and Tarneit Plains Precinct Structure Plan Background Report, April 2016 by the Metropolitan Planning Authority

129. To understand whether the PSP has responded adequately to these existing uses and planned future operations, I consider the following key issues need to be addressed:
- Has strategic planning for the West Growth Corridor appropriately considered the long established nature of the quarry operations, future extraction capacity and the planned expansion of the MRL landfill waste facility?
 - At a local level, does the Mt Atkinson and Tarneit Plains PSP represent an appropriate planning response in terms of its proximity to an active quarry and landfill operation and their anticipated operational expansion and lifespan?
 - What are the combined impacts, if any, of the high pressure gas pipeline on the anticipated uses in the PSP?
130. I consider these questions within the following sections of my report.

4.4. STRATEGIC PLANNING FOR NATURAL RESOURCES AND LANDFILL FACILITIES IN MELBOURNE'S GROWTH AREAS

131. The use of the subject site for quarrying and, concurrently, a landfill facility are two uses that are of significant importance to the State as both a resource and a crucial service facility for the broader metropolitan area.
132. They are also uses that can potentially generate adverse impacts if inappropriate uses are allowed to encroach upon them.
133. It is pertinent at this point to consider more broadly how strategic planning for Metropolitan Melbourne has addressed this issue during its expansion, particularly in more recent growth corridor planning.
134. Melbourne, like the majority of major westernised cities, has typically used the planning system to ensure that planning reduces unnecessary conflict between competing interests.
135. I refer for example to the 1929 'Plan for General Development' (**1929 Plan**), prepared by the *Metropolitan Town Planning Commission*. This was the first attempt to respond to the growth pressures being placed on metropolitan Melbourne through a strategic plan. While the 1929 Plan was, ultimately, not implemented, it was prepared in recognition that greater order was necessary in order to plan properly for significant population growth, a message that continues to run very true today as Melbourne experiences further significant growth and increases to its population.
136. In the foreword to the 1929 Plan, replicated further below at **Figure 12**, I find the following opening words particularly relevant still today as to why there is a need for sound strategic planning in regard to the full range of demands upon urban areas, including those that support growth and the day-to-day functioning of a city, I include waste management planning as an essential part of planning for the future:

"The unmistakable tendency of cities to grow rapidly in population and expansiveness should forcibly impress upon all legislators and administrators the desirability of taking steps in due time to provide for the necessities of the future."

FOREWARD

The unmistakable tendency of cities to increase rapidly in population and expansiveness should forcibly impress upon all legislators and administrators the desirability of taking steps in due time to provide for the necessities of the future. The lessons to be learnt from the absence of such a policy may be found in the extensive and costly reconstruction schemes which have taken place in many cities. It is now generally realized that if a city is to serve best its true functions it must have guidance and control in development according to a well-considered plan. In this way only can economy in public expenditure as well as efficiency and comfort be enjoyed by the various classes of people who constitute its population. Prudent expenditure at an opportune time will obviate much larger expenditure in days to come. Wise planning in relation to constructive developmental works can provide for many future public needs, and, if not exercised, the result is that impassable barriers are created which will make it impracticable except at huge cost to furnish the community with facilities that can now be predicted as future necessities. The endeavours of the Commission have been directed to the formulation of proposals which, if carried out gradually, it believes will ensure that the requirements of a rapidly growing population are provided for in the most economical manner, and with a view to the welfare of the people generally. Melbourne, it is believed, is destined to become a really great city. It has many noble proportions and outstanding advantages, but if the foundations already laid are to have a worthy superstructure its future must ever be kept in mind. These considerations have been always before the Commission in its work.

Figure 12 – Foreword to the 1929 ‘Plan for General Development’

137. In discussing the land use planning zoning system, the 1929 Plan pointedly includes the following statement when discussing the benefits (of zoning). The opening and final paragraphs are particularly relevant:

The waste which takes place in many phases of city development as a result of the haphazard location of industries, shops, and dwellings can be reduced to a minimum by the operation of a sound scheme of zoning, so that the city and its individual components may expand in their true relation to each other and to a general scheme of city development.

A city-wide scheme of zoning would have a very beneficial effect by stabilizing the value of property. Each particular zone could be located, not only in regard to the necessary amenities, but its area would be regulated in accordance with the probable future demand for space within the district. Under such regulation, a wasteful allocation of land within the metropolis would be prevented, and a greater value would accrue to the lands set aside, because of the more intense use which could be made of it, and the freedom given from conflicting or injurious uses.

In dealing with the zoning problems of built-up cities the question of existing services and their relation to the activities which may be carried on in the particular zones must be studied. Great savings will be possible if a greater use can be made of already established services. Different classes of development call for a variation in the nature of service but if unrestricted development is allowed, little guidance is given to the various service authorities or companies, either as to the nature of the services or the likely demands upon them.

Figure 13 – Extract from the 1929 Plan discussing outcome of ‘haphazard’ location of uses and allowing existing uses to be used to their potential

138. From a strategic planning perspective, I find much of the discussion still relevant today as illustrated by the similar discussion in Plan Melbourne that I previously cited (but replicated again here) that states ‘*Successful cities respond to growth constraints by making better use of what they already have*’.
139. The subject site is a well-established quarry with significant identified capacity to be quarried for a significant number of years. In addition to this, the site has been used as a landfill resource since 1999 and again, has long term identified capacity, as identified in metropolitan waste infrastructure plans (that I will discuss later in my report).
140. In my opinion, this establishes the subject site as an ‘existing asset’ with a reasonable expectation that it will continue to exist for an extensive period of time, consistent with the terms of the planning permit allowing it to be quarried and its designation in metropolitan waste strategies since 2009. Greater use of existing assets, as the 1929 Plan suggests, can result in ‘great savings’, which in my opinion includes avoiding the need to relocate facilities or services unnecessarily and at great expense to the public or to the user.
141. In this regard, I find that good strategic planning should always reasonably try to recognise these important established assets and plan for their long term future as part of any strategy for urban growth consistent with the intent of the 1929 Plan and subsequent metropolitan strategies that I consider further. It is also relevant to highlight that current day waste and resource recovery strategic planning aims to protect existing facilities of state importance (i.e. existing assets) and forms a key policy objective of the poignantly titled ‘Getting Full Value’ State Waste Policy that I turn to later in my report.
142. The *Melbourne Metropolitan Planning Scheme* of 1954 (the **1954 Plan**) was the commencement of the land use planning system that generally applies today. It was produced by the Metropolitan Melbourne Board of Works (MMBW).
143. Using the 1929 Plan and its recommendations as a key influence, the 1954 Plan was prepared to coordinate and manage the growth issues across the whole metropolitan area, believing that the ‘*problems of the metropolitan area could not be effectively coordinated and solved*’ by the individual approach of Councils:

From the inception of the work it was apparent, therefore, that the scope of this planning scheme would require careful consideration. In superimposing on the existing planning powers of the individual municipalities, the preparation by the Board of a planning scheme for the Melbourne metropolitan area, Parliament was obviously actuated by the belief that however competent municipalities might be in preparing planning schemes for their areas, the problems of the metropolitan area could not be effectively co-ordinated and solved by the individual approach of the forty-two municipal Councils whose districts, either wholly or in part, are within the metropolitan boundary. Parliament realised that for an effective solution of metropolitan problems a unified and co-ordinated study of the area as a whole would be necessary, and that until this was done planning by individual municipalities could not be fully effective.

Figure 14 – discussing the need for metropolitan-wide planning, Melbourne Metropolitan Planning Scheme 1954

144. Again, I acknowledge the commentary identifying the need for higher order planning to be coordinated as a means to resolve metropolitan wide problems. I draw relevant comparison to the current day approach to waste and resource recovery being implemented by the Metropolitan Waste and Resource Recovery Group (MWRRG) which is coordinating significant metropolitan wide waste facilities and future needs.
145. Here, I note for example that the City of Melton is opposed to the future expansion of the MRL for a variety of reasons, despite its identified importance to the metropolitan area’s ability to meet its waste management needs. This highlights that challenges to achieving metropolitan solutions still remain.
146. I consider the current waste and resource recovery policy and strategy in more detail later in this report.

147. Within the 1954 MMPS, it discussed waste collection noting that controlled tipping was a 'satisfactory and economical' method of dealing with waste and enabled, amongst other things quarries to be reclaimed. It also noted there was 'ample places' within the metropolitan area where 'garbage' could be disposed. Again, the policy espoused the benefits of a coordinated approach to waste management.

About 90% of the garbage of the city is now disposed of by controlled tipping. With proper control this is not only a satisfactory and economical way of dealing with it, but it enables low-lying land, quarries and clay holes to be reclaimed. Useless and unsightly areas can thus be made of value to the community. There are ample places within the metropolitan area where garbage can be so disposed for at least 100 years, but they are not conveniently situated for all municipalities. To achieve the maximum benefits from this method of disposal it is necessary that there should be greater co-ordination than at present to enable as many municipalities as possible to adopt this economical method, and so that a system of priorities can be established to ensure that areas whose reclamation is most desirable from the community standpoint are reclaimed as soon as possible. In the inner suburbs, in particular, reclamation of excavations and low-lying ground presents an excellent opportunity for securing much-needed recreational space.

Figure 15 – Extract of the 1954 Plan discussing garbage collection policy and the need for a more coordinate approach across municipal areas

148. The 1971 metropolitan planning strategy, '*Planning policies for Metropolitan Melbourne*' (the **1971 Plan**) was a long term strategy to guide the growth of Melbourne for 30 years. It established a 'growth corridor' model. It stated that:

Melbourne should be encouraged to follow a corridor type of development with urban development confined to the "growth corridors", separated from each other by "green wedges" of open country protected from urban development.

149. The green wedges, more typically referred to as the 'non-urban areas' in the 1971 Plan, were established to protect a number of values, including conserving resources. The Introduction to the Plan, included the following outline:

*The published plans are a first step towards making the most efficient and compatible use of the land available, channelling urban development into growth corridors within easy reach of open areas, making the best use of our existing systems, **conserving our resources**, preserving areas for the future and developing in a way to minimise future community costs.*

(Note: my **emphasis**)

150. The 1971 Plan introduced new *Special Extractive Zones*. In the description of this Zone on page 84 of the Plan, it identified the Deer Park quarry as a major area (for basalt rock extraction). The Plan stated that only uses that would not prejudice the 'future' use of land for extractive industry would be permitted.

151. This established two key principles for Melbourne's growth area planning, which were:

- To use non-urban zones, 'green wedges' to protect important mineral resource facilities for the future
- To ensure compatible development was planned in appropriate growth corridors

152. The 1981 metropolitan strategy, *Metropolitan Strategy Implementation* (the **1981 Plan**) largely adopted similar principles to Melbourne's non-urban areas and protecting important mineral resources. Policy 5B(12) (c) for example stating the following Objective under the heading *Natural Conservation*:

To conserve and permanently maintain the rural activities and significant natural features and resources of areas coloured and delineated as non-urban on the strategic framework plan.

153. The 1981 Plan adopted an approach of 'incremental growth'¹⁵, which accepted continued but slower growth in outer areas of the metropolitan area and greater focus on existing areas. The 1981 Plan stated on page 3 that incremental growth would mean, amongst other things:
- *better use of the immense public and private investment that already exists in the metropolitan region, including transport, recreational and cultural facilities and social service networks as well as services such as costly gravity services*
154. Similar to previous metropolitan strategies, I consider this to mean that it called for planning to make best use of existing assets and further recognised that the private sector made 'immense' investment in important services and facilities across the metropolitan area. Today, I consider that this policy would apply to waste and resource recovery also as a facility that the private sector invests in significantly and that provides a vital service to the day-to-day running of the metropolitan area.
155. By 1995, landfilling facilities were acknowledged in policy as requiring protection. The 1995 Plan, *Living Suburbs* (the **1995 Plan**), continued the theme of making the best use of land by recognising a need to protect parts of Melbourne with particular characteristics, including 'tips' (landfill) and mining areas, as per the following extract from Direction 5, Part 2 (page 59):
- Making better use of existing urban land will also mean protecting the many parts of metropolitan Melbourne that have particular characteristics or which support activities incompatible with other urban uses. Examples include airports, tips and sewage treatment plants; mining, agricultural and recreational areas; and areas with high landscape and conservation values.*

The Urban Growth Boundary

156. Melbourne 2030, released in October 2002, was the first metropolitan strategy to introduce the 'Urban Growth Boundary' or **UGB** in response to continued expansion of the City. At Direction 2 (*Better management of metropolitan growth*) it stated:
- Increasingly, metropolitan Melbourne is spilling into areas noted for productive agricultural capacity, environment or conservation features, mineral resources, recreation or landscape values*
157. Policy 2.4 of Melbourne 2030 was titled: *Protect the green wedges of metropolitan Melbourne from inappropriate development*. Within the supporting text it provided the following description of these areas:
- The 12 non-urban areas that surround the built-up urban areas of metropolitan Melbourne and are outside the urban growth boundary are known as green wedges.*
- They are an important legacy of past metropolitan planning. Most of them lie between the 'fingers' of urban growth that follow the major transport corridors. The green wedges accommodate agricultural and recreational uses, as well as a variety of important functions that support Melbourne. These include **major assets** such as airports, sewage plants, quarries and **waste disposal sites – uses that support urban activity but which cannot be located among normal urban development.***
- (Note: my **emphasis**)
158. The importance of waste disposal sites to metropolitan Melbourne is clearly recognised in the above policy where they are described as a 'major asset'.
159. Melbourne 2030 established an interim urban growth boundary in 2002 via Amendment V16. It was finally established under a modified alignment in 2005/6¹⁶.
160. The subject site and the PSP area sat outside the UGB. The PSP area was identified as Green Wedge Zone. They were identified within the *Western Plains Green Wedge*.
161. Technical Report 2 (*Green Wedges and Non-urban Issues*)¹⁷ was prepared as an issues paper to help inform the preparation of Melbourne 2030.

¹⁵ For example, see Part 2, pages 2-3 of the 1981 Plan

¹⁶ Under various amendments and adjustments to the 2002 interim UGB.

¹⁷ PLANNING ISSUES IN MELBOURNE'S GREENWEDGE AREAS An issues paper prepared as a contribution to the development of a Melbourne Metropolitan Strategy, prepared by Alistair Kellock and Associates on behalf of the Department of Infrastructure, September 2000.

162. In the report, it considered many of the benefits of Green Wedge policy and included the following statement:

*Industries such as basalt and sand extraction and subsequent **land fill/waste disposal and operations** have been able to continue operation within close proximity to major markets in Melbourne. This has created efficiencies in the provision of raw materials to the construction industry and useful, if somewhat controversial, sites for refuse disposal. It has also allowed, in time, the conversion of some of these areas for recreation use.*

(Note: my **emphasis**)

163. The report went on to consider the issue of green wedges and uses with potential off-site impacts, noting the significant economic advantage that many of these uses benefited from by being separated from urban development:

Green wedges serving as buffers to other uses with off site effects

The low-density nature of green wedges sometimes attracts activities that have influence beyond their immediate sites. The low-density nature of land in Melbourne's green wedges can act as a buffer to activities in another ownership. Examples include the rural areas abutting the sewage works at Werribee and Carrum; and land surrounding refuse disposal areas, extractive industries, broiler farms, airports, dog kennels, and noisy places of assembly. In Dandenong South, the green wedge provides a buffer for offensive industry in urban areas. Whether these uses are reasonable to allow in the first place will rely on what role a green wedge may play in its particular setting.

These uses are not always without conflict or controversy. The emitting activity may restrict uses on adjoining land in other ownerships, impact negatively on other activities or restrict what may in other circumstances be considered reasonable development. This impact can worsen over time as land uses change, emissions increase, community expectations alter, etc. The Urban Fringe Advisory Committee has partly addressed this question and made suggestions on how to resolve existing or potential conflicts including the apportionment of costs.

Despite the potential for some conflict, the green wedges provide a significant economic advantage for a range of uses with off-site effects. If these uses have to be relocated because urban development is allowed to develop close by, then additional costs may need to be borne by the community for their relocation. For instance, the cost of relocating sewage farms and airports would be horrendous.

164. It is apparent that the above commentary, particularly the final paragraph, remains true to the 1929 Plan in that it recognises that relocating existing facilities and services can be a costly exercise if they are not used to their full potential.
165. The commentary is also particularly relevant about changes to community expectations as it is an inevitable part of urban growth that introducing more intensive urban development alongside uses with potential adverse amenity impacts, irrespective of buffer controls and operating procedures, will lead to likely conflict as residents or occupiers become less tolerant, over time, to existing uses.
166. Amendment VC68 to Growth Area planning schemes on 6 August 2010 increased further the land included in the UGB. This followed the integrated planning processes undertaken following the release of the *Melbourne @ 5 Million* policy statement and culminated in the UGB amendments under the *Delivering Melbourne's Newest Sustainable Communities (DMNSC)* process.
167. It resulted in three key outcomes:
- Revise Melbourne's Urban Growth Boundary and designate land for development;
 - Plan the alignments of the Regional Rail Link (west of Werribee to Deer Park) and the Outer Metropolitan Ring / E6 Transport Corridor; and
 - Define the boundaries and management of grassland reserves in Melbourne's west.
168. With regard to the subject site and the PSP area, Amendment VC68 brought these lands into the UGB and identified some of the land, including part of the PSP area as suitable for urban purposes by virtue of the designation of land as Urban Growth Zone. This signalled a future intent that it would be, generally acceptable for urban purposes.

169. I note that the subject site was retained as Special Use Zone, while the buffer to the quarry (including part of the PSP area) was retained within the Farming Zone (FZ), as it is today.
170. In the report titled *Delivering Melbourne's Newest Sustainable Communities – Report for Public Consultation: Urban Growth Boundary Review* (June 2009), the **DMNSC Report**, Chapter 5 at page 47 set out the following range of issues associated to the quarry and landfill in the Western Growth Corridor:

Safeguarding extractive resources and other uses

*Realising the opportunities to develop transit-oriented development along the Melton rail corridor and create new employment areas east of the alignment of the Outer Metropolitan Ring / E6 Transport Corridor will have the effect of encircling the mix of land uses in the vicinity of the quarry with urban uses in time. **It is recognised that the quarry operations, landfill and related uses have significant regional value and should be protected into the future.** Similarly the two prisons at Ravenhall need to be protected from incompatible land uses. Planning in this locality is also complicated by the proposed route of the Regional Rail Link which bisects the area. The preferred outcome is to ensure that urban land uses likely to be incompatible with current and future operations are not developed within the 500 metre buffer to the quarry tenements. The future of the land surrounding the two prisons should not be determined until a detailed assessment has been undertaken of compatible future land uses and the impact of the Regional Rail Link is considered.*

(Note: My emphasis)

171. This confirms an original intent that the PSP area (i.e. land to the east of the OMR/ E6) was envisaged to be employment land when the UGB was altered in 2010. Evidently, this intent has been eroded since.
172. To understand the background to Amendment VC68, I have considered the technical reports that were prepared. These considered the capacity of land in the growth corridors to accommodate development.
173. Background Technical Report No. 1: *Land capability*¹⁸ informed the designation of the areas being considered for possible inclusion into the UGB – known as 'investigation areas'. These were presented in the DMNSC Report. At Section 4.1.3 of this report (Analysis of constraints and issues) it stated:
- The major constraint in the Melbourne West (Melton-Caroline Springs) Investigation Area is the Boral Resources Quarry. According to Boral Resources Pty Ltd and Council this quarry tenement is approximately 1,000 hectares in size, has resources in excess of 80 million tonnes and has expected 50 year life span remaining. Part of the tenement is being used as concrete plant, a landfill (including biogas collection) and a recycling facility (construction materials) which is a common use for former stone resource quarry sites. This site and the land immediately surrounding the site are unsuitable for urban development, particularly residential. Some industrial uses may be appropriate adjacent to and within buffer areas.*
174. Once again, it was anticipated that industrial uses would interface with the quarry and landfill.
175. Following VC68, the State Government committed to preparing the 'Growth Corridor Plans' in order to guide future urban development within them. I have already discussed the intentions of the Growth Corridor Plan for the PSP area, which designated it 'predominantly' for employment purposes.

4.5. POPULATION GROWTH – IMPACTS ON PLANNING FOR GROWTH

176. The matter of population growth and how this has influenced metropolitan planning strategy is relevant because it can significantly impact the way that land is used, the intensity of the demand and the overall demand on services and utilities that we are planning for, such as waste management and infrastructure needs.
177. Recent metropolitan planning in particular has been severely challenged by upward revision to population projects for Melbourne and this has impacted significantly on the planning response that has been adopted.

¹⁸ Background Technical Report No. 1: Land capability prepared by Parsons Brinkerhoff in conjunction with RM Consulting for the State Government

178. By way of illustration, I refer to the 1954 Plan that anticipated a future metropolitan population for Melbourne of 2.5 million people by 2000¹⁹.
179. This was actually reached between the census period 1966 and 1971²⁰, far in advance of the projections anticipated by the original 1954 MMPS.
180. This is similar to more recent trends since 2002 and the preparation of Metropolitan planning strategies Melbourne 2030 and Plan Melbourne. Population projections have regularly proved to be below actual growth rates and required revision of projections – typically upwards as the population has grown quicker than anticipated.
181. To illustrate this point, Melbourne 2030 was prepared on the basis of an additional one (1) million people over the plan period (2002 to 2030) and advancing the metropolitan population of Melbourne to 4.6 people (based on a high growth scenario).
182. Metropolitan Melbourne, already at a population of 4.2 million people in 2012 had grown to 4.56 million by 2015²¹. The current population is already, therefore, toward the upper end of the growth predicted by Melbourne 2030 almost fifteen years ahead of schedule.
183. Melbourne @5 Million (Melbourne 2030: a planning update) was released by the State Government in December 2008 in response to revised *Victoria in Future (VIF)* population projections. VIF anticipated Melbourne would reach a population of 5 million much faster than previously anticipated and, consequently this led to a reconsideration of where urban growth should occur.
184. Melbourne @5 Million was based on the scenario that over 30 years (from 2006 to 2036), Victoria would grow by 2.3 million people, with 1.8 million additional people in metropolitan Melbourne. This varied from the additional 1 million people predicted between 2002 and 2030.
185. The most recent ABS growth projections suggest that metropolitan Melbourne will now grow to between 7.6 million and 9.8 million by 2061²². Plan Melbourne, the most recent metropolitan planning strategy, adopted a growth figure of 7.7 million (metropolitan population) to 2051 at the time it was released by the State Government in May 2014.
186. Plan Melbourne itself was subject to significantly revised population figures during its drafting, whereby the draft released for public comment (9 October 2013) was based on a population of 6.5 million by 2051. This was subsequently revised upwards by 1.2 million people to the projected metropolitan population of 7.7 million by the final version following the release of revised ABS population projection in late October 2013.
187. The above history of population projections highlights the significant ongoing challenge for strategic planning in Victoria but particularly so for metropolitan Melbourne where much of Victoria's population growth is occurring. For example, in the period from June 2014 to June 2015, the ABS estimated that the Victorian population experienced a net increase of 99,400, of which metropolitan Melbourne grew by 91,600 people to 4,529, 500 representing 92% of Victoria's total growth over the twelve month period.
188. I find a similar pattern with the more recent Victorian State Government policies and infrastructure plans that have been prepared to guide waste recovery strategy and implementation.
189. For example, I refer to the '*Draft Statewide Waste and Resource Recovery Infrastructure Plan 2013-2043*', (September 2013) that was prepared by Sustainability Victoria. I refer to this as the (Draft) **SWRRIP**. It relied upon the then VIF 2012²³ population projections to establish the growth scenario for future waste needs modelling. To illustrate what this means, the SWRRIP anticipated a future Victorian population of 8.7 million by 2051, however the ABS figures released shortly after project the Victoria population to be approximately 9.5 million by the same 2051 date, a difference of 800,000 people.

¹⁹ See *Melbourne Metropolitan Planning Scheme 1954 – Survey and Analysis* report, Part 4 (The People of the Planning Area) by the Melbourne and Metropolitan Board of Works

²⁰ Source: Australian Bureau of Statistics (ABS): '*Australian Historical Population Statistics*', 2014.

²¹ See ABS Regional Population Growth, Australia 2014-2015

²² ABS Population Projections, Australia, 2012 (base) to 2101, 26 October 2013.

²³ Department of Community Development '*Victoria in Future 2012: population and household projections 2011-2031 for Victoria and its Regions*', 2012

190. The final SWRRIP was released by the current State Government on 11 June 2015. Like Plan Melbourne, it appears within its 'Foreword' to have readjusted its demographic forecasting based on December 2013 ABS data²⁴. Despite this, the data sources table in the SWRRIP continues to refer to the same 2012 data that the draft relied upon, being the 'ABS Catalogue Number 3101 — Australian Demographic Statistics', March 2012.
191. Similarly, I note that the Metropolitan Waste Management Group²⁵ released a consultation draft Metropolitan Waste and Resource Recovery Strategic Plan in October 2013. It relied upon ABS Census data from 2011 and the VIF 2012 data.
192. The obvious and most recent outcome of significantly increased population growth and revised projections has been the pressure it has applied to metropolitan Melbourne to accommodate this growth. This pressure has manifested itself in substantive changes to Melbourne's 'Urban Growth Boundary (UGB)' in 2005/6 and again in 2010.
193. Melbourne's GCPs released in June 2012, by the (then) Minister for Planning were based on an ultimate population for metropolitan Melbourne of six (6) million over its 30-40 year plan period.
194. Despite this, I note again the changing dynamic of population projections between the 2012 GCPs and the draft 2013 Plan Melbourne, which saw the projected metropolitan population increase by 500,000 people, only for this figure to be further revised by an additional 1.2 million by the time the 2014 final (Plan Melbourne) was released. Between the GCPs being finalised and the release of the final Plan Melbourne, Melbourne was required to accommodate an additional 1.7 million people. That is growth of 1.7 million people that had been unforeseen only two years prior.
195. Plan Melbourne and the ongoing Plan Melbourne Refresh²⁶ have talked about a permanently fixed urban growth boundary for Melbourne.
196. In my opinion, increased population projections since the current UGB was established alongside other factors such as a possible 'fixed' UGB raise some challenging strategic planning issues.
197. At the very least, an increased population will have consequential demands upon a range of competing land use requirements, such as a need for more jobs, more schools, more open space, more shops and, ultimately, more servicing requirements such as refuse collection and disposal.
198. If the UGB is to be permanently 'fixed' for example, this would combine to increase the intensity of demand upon the land available for urban purposes compared to the demands anticipated when the UGB was fundamentally altered in 2010.
199. With specific regard to the subject site, increased population growth in Melbourne may have two impacts, being:
- Increased demand upon the stone resources available on the land
 - Need for increased landfill capacity to serve metropolitan growth
200. The consequence of such need is that it could require these existing resources and assets (e.g. the landfill capacity) to be utilised to their ultimate capacity; which is a period in excess of 40 years as I have highlighted earlier in this report.
201. I do not suggest that there are fundamental problems with the planning strategies that have been prepared for Melbourne's growth, either land use planning (Plan Melbourne or the GCPs) or waste planning. That said, if population growth projections are met much earlier than anticipated, as demonstrated in historical and recent growth trends, it has the potential to place strain on existing resources and infrastructure if appropriate steps are not taken to best utilise them or, as a minimum, ensure they are not compromised into the future.
202. It is, of course, the role of planning to balance growth alongside the ability to service and manage it efficiently and effectively.

²⁴ The reference in the Foreword refers to footnote 1 which cites population growth forecast source as Australian Bureau of Statistics, Australian Demographic Statistics, December Quarter 2013.

²⁵ Metropolitan Waste Management Group (MWMG) – now the Melbourne Waste Resource Recovery Group (MWRRG) - a statutory authority of the Victorian Government.

²⁶ The State Government is currently updating Plan Melbourne to reflect current State Policy.

203. Once again, this reinforces the long established principle in Victorian metropolitan planning strategies that it will become vitally important to make the best use of existing assets that deliver important services, such as landfill sites, because they may well be required to operate to the full extent of their capacity. Similarly, planning has to recognise that alternative sites for major regional facilities, such as landfills, will be almost impossible to find in or close to the existing metropolitan area and this could have significant servicing efficiency implications if existing facilities are not able to continue or receive adequate protection. Waste planning policy, which I consider later in my report, recognises this potential risk.
204. Overall, what I conclude from this is that strategic planning needs have regard to the long term needs of the metropolitan area and to balance its competing demands. Ensuring essential services can continue to operate will be a key component of this.
205. Planning cannot simply have regard to the here and now and preserving land for future needs, such as employment or services is an important requirement even if the land is not required for a number of years. This would be short-sighted. The GCPs, for example, recognise that industrial uses cannot be retro-fitted into urban areas once sensitive uses are allowed to establish, which is why it supports retention of industrial land over the entire lifetime of the Plan until it is required.

4.6. CONCLUSIONS ABOUT GROWTH AREA PLANNING AROUND LANDFILL FACILITIES AND QUARRIES

206. It is apparent that there are some key recurring issues that metropolitan planning strategies have tried to address since the 1929 Plan was prepared.
207. I consider these to be:
- Planning has consistently recognised a need to make the best and most efficient use of existing assets, including utilities and services necessary to the orderly daily functioning of the city.
 - Need for coordinated land use planning to avoid 'haphazard' uses occurring alongside one another
 - Planning for growth has been regularly challenged by population growth significantly exceeding forecasts which has created uncertainties from a metropolitan planning and growth strategy perspective.
 - There have been a series of deliberate policy attempts to separate uses with potential adverse amenity impacts from sensitive urban uses.
 - Evolution of clear Green Wedge policy to protect a range of values including natural resources.
 - Green wedge policy, while originally focused on mineral resources and extraction industries, evolved to provide protection for airports, landfilling facilities or sewerage treatment plants
 - Strong recognition of important role of facilities such as landfill and quarries perform to the metropolitan economy.
208. In turn, I find that many of these issues identified in early metropolitan planning strategies have greatly influenced the *Objectives of planning in Victoria*²⁷, as establish by the PE Act, which include the following that are relevant to my consideration of the PSP:
- a. to provide for the fair, orderly, economic and sustainable use, and development of land;
 - b. to provide for the protection of natural and man-made resources and the maintenance of ecological processes and genetic diversity;
 - c. to secure a pleasant, efficient and safe working, living and recreational environment for all Victorians and visitors to Victoria;

²⁷ See Part 1, Section 4 of the Planning and Environment Act 1987.

- e. to protect public utilities and other assets and enable the orderly provision and co-ordination of public utilities and other facilities for the benefit of the community;
 - g) to balance the present and future interests of all Victorians.
209. Clearly, Objectives 'b' and 'e' are particularly relevant, as planning seeks to protect important assets as part of the orderly planning of land.
 210. Accordingly, I find that there has been consistent and deliberate policy within successive metropolitan planning strategies to protect important facilities and resources from the pressures of urban encroachment, including landfilling facilities.
 211. Such an approach is consistent with the very reasons why the earliest metropolitan planning strategy, the 1929 Plan, was considered necessary i.e. to prevent incompatible uses being located alongside one another.
 212. The evolution of green wedge policy in the 1970's marked a deliberate attempt to safeguard important values and direct compatible urban development into growth corridors.
 213. Melbourne's green wedge areas contained a range of uses such as quarries, sewerage treatment plants, Melbourne Airport and landfilling facilities. Green Wedge policy recognised the significant economic value that was derived from affording certain uses, such as landfill sites, the separation and buffer distances that a rural environment created.
 214. The 2010 changes to the UGB brought a range of existing quarries and landfill facilities into Melbourne's growth corridors and established the potential for 'urban development' in proximity to them. These included the subject site, along with the Wyndham Landfill and the Wollert Hanson Landfill – the three most significant landfill facilities in the State.
 215. Population growth is continuing to increase at levels that have exceeded earlier but recent projections. Even between the 2012 release of the *Growth Corridor Plans* and the approval of Plan Melbourne in May 2014, population estimates were revised upwards by over 1.2 million people during its preparation. Unless the area of land included for development within the UGB is altered yet further, pressure from population increases may continue to intensify the demands on urban land as well as the resourcing requirements needed to service the increasing population. Consequential impacts may well be increased volumes of waste, energy requirements, demand for more water and public transport services.
 216. Every metropolitan planning strategy since 1929 has called for a better use of existing assets. Indeed, metropolitan growth planning to date has consistently made a concerted effort to provide protection for important resources and other facilities, such as landfill sites, that are of vital importance to the overall day-to-day function of the metropolitan area and its economy. This includes the subject site.
 217. Planning has typically achieved this through a process of separating incompatible uses through zoning and growth corridor planning.
 218. I recognise that updated metropolitan waste policy, strategy and implementation plans are being prepared under the Environment Protection Act 1970 and these will become an important tool for more integrated land use planning decisions. I consider waste management policy in more detail in Section 5 of my report.

4.7. PLANNING AND USES WITH ADVERSE AMENITY POTENTIAL – ENVIRONS CONTROLS

219. In the previous section, I have considered metropolitan wide planning strategies that have provided broader direction about the location of development and how certain types of land uses, such as quarries and airports were safeguarded by the evolution of successive metropolitan planning strategies and policies, such as the 'green wedge' policy.

220. Planning has, since the emergence of the 1929 Plan, been conscious of the need to separate incompatible uses, recognising that there are a range of use and facilities, both public and private that have required a level of land use planning protection in order to safeguard investment in them and ensure that they can be utilised efficiently and to their potential without undue restriction.
221. Melbourne Airport is perhaps the most high profile example of a use that was originally located so to be appropriately separated from an urban population. Melbourne's green wedge policy, in part, evolved to provide protection to this major facility.
222. The Commonwealth Government decided to acquire land at Tullamarine in 1959 for the future Melbourne airport to replace the constrained Essendon Airport. The site was deliberately located well beyond Melbourne's north-western suburbs. Subsequent urban growth and encroachment has continually challenged the 'curfew free status' of Melbourne Airport and is recognised as a fundamental challenge for airport planning both locally and nationally.
223. By way of context, Federal and State Governments formed the National Airport Safeguarding Advisory Group and prepared the *National Airports Safeguarding Framework* (NASF) was prepared by NASAG and approved in May 2012. Pointedly, the NASF discusses why there was a need for policy to respond to continuing urban expansion:
- Sites for airports are scarce and finding new land to replace or expand existing airports is difficult. Existing sites in many cases pre-dated significant urban development. More recently, urban expansion and densification has increased tensions between residential and industrial development and airport operations*
224. I understand that environs controls have been applied to land around Melbourne Airport since 1992. Alongside this, I consider that the State Planning Policy Framework (SPPF) provides strong policy support for the Airport in terms of recognising its significant economic role for Victoria and the need to protect its curfew free status. The major recognised challenge to its 'curfew free' status would be conflict with sensitive uses, such as residential development, if it is not appropriately controlled within the airport environs.
225. Another significant example of a use that is located by geography natural resources include the Port of Melbourne that relies on water access provided by Port Phillip Bay and the Yarra River.
226. Owing to increased pressures on Victoria's trading ports from urban encroachment, Ministerial Direction 14 was gazetted on 31 May 2014²⁸ as a means of affording greater protection against inappropriate development in the 'environs' areas to the ports identified within it.
227. More recently, the *Major Hazard Facilities Advisory Committee* (MHFAC) was established to consider the implications of encroachment on major hazard facilities (MHFs) and to consider, amongst other things how the '*land use planning system can assist in managing risks and any adverse impacts, including the potential role and function of land use buffers*'. The MHFAC has not yet reported its findings.
228. I note the terms of reference (TOA) to the MHFAC that comparison is made to the '*Local Government Buffer Support Program*' as an example of work (by the MWRRG) to develop a suite of controls that can be used by a range of stakeholders to better manage a range of interface areas around waste and resource recovery centres.
229. I understand the MWRRGs Local Buffer Support Program is investigating options for implementing buffers around waste and resource recovery sites into the planning system. It was only commenced in early 2014 and is expected to run until 2017. It is prioritising a number of state important facilities as part of the program to better define buffers and I understand that this includes the MRL facility. Unfortunately, this process is still in its infancy and the outcomes are not yet known in terms of land use planning implications. I find this unfortunate given the planning processes currently occurring in proximity to the subject site.
230. Overall, it is apparent that there is a need for the additional planning controls over the environs areas around uses with potential adverse amenity impacts is an inevitable consequence of allowing urban expansion to occur, particularly where sensitive uses are being contemplated.

²⁸ This followed the consideration of the planning issues by the Port Environs Advisory Committee in 2010, which are set out in its final report.

231. Different sectors of industry and business along with licensing and regulation authorities are only themselves coming to terms with the potential implications of metropolitan Melbourne's significant urban expansion and the potential for sensitive uses to be located in proximity to existing facilities or services. While policy and planning control responses in some areas are long established, such as the Melbourne Airport environs controls, others are just emerging. It is somewhat unfortunate that this is being done on an incremental basis and in response to specific development pressures (i.e. through the PSP forum) but again this is an inevitable consequence of the significant growth pressure that Melbourne has and is continuing to experience. This is not assisted by the lack of clarity on the sequencing of the PSP program, which prevents service and utility authorities and other key services from forward planning in any area with great confidence.
232. Nonetheless, the strategic planning task is clear. Any approval of the PSP needs to be entirely confident that the long term operation of the state significant and important Deer Park Quarry and the landfill operation would not be compromised by the introduction of land uses that could adversely affect their continued operation.

5. WASTE MANAGEMENT CONSIDERATIONS

233. Relevant to my consideration of the PSP, it is necessary to consider the designation of the subject site as a site of state importance as a landfill site. I consider first a brief history of the emergence of metropolitan waste policy. I then consider the relevant policy framework that is referenced in the State Planning Policy Framework.

5.1. EMERGENCE OF WASTE MANAGEMENT POLICY

234. Prior to the enactment of the *Environment Protection Act 1970 (EP Act)*, waste disposal was primarily addressed under the *Health Act 1958*²⁹ and required, amongst other things, each municipal Council to collect and dispose of domestic and industrial waste.

235. Under the Health Act it can generally be summarised that waste collection was, at the time, primarily focused on public health as opposed to the more holistic and integrated approach toward environmental protection we see before us today.

236. In 1971, the State Development Committee (the **SDC**) released a Progress Report³⁰ on the disposal of waste and garbage, which included 58 conclusions and 33 recommendations.

237. Amongst other conclusions, the Committee found that there was a need for better waste planning across whole cities and/ or regions and that moving toward larger regional facilities rather than multiple tips was to be preferred. It also found the sites for future landfill sites to be directly linked to extractive industries. Some of the most relevant conclusions are replicated below.

- *The disposal of refuse generated within the State of Victoria in the most efficient and economic manner has been hampered by fragmentary control and piecemeal planning.*
- *Victoria's future requirements with regard to refuse disposal facilities should be planned and co-ordinated on the needs of whole cities and/or regions.*
- *More efficient and economical disposal of refuse would be achieved by the implementation of regional, or joint disposal schemes, involving a number of participating municipalities.*
- *Regional schemes offer many benefits, in terms of reduced operation and maintenance costs and the better utilisation of natural resources, whilst the combined financial resources available to participating municipalities would enable them to develop more advanced disposal techniques and equipment, which would otherwise be beyond the financial scope of any one municipality.*
- *Regional disposal schemes involving sanitary landfill operations usually provide for the concentrated filling of a single disposal area, which, in principle, is to be preferred to the prolonged filling of a multiplicity of tips.*
- *The present and future availability of sites for sanitary landfill operations are inextricably linked with the operations of extractive industries.*

(Note: My emphasis)

238. In its recommendations, the Report included the following:

- *That the facilities and services required to meet Victoria's future refuse disposal needs be planned and co-ordinated on the basis of the needs of whole cities and for regions.*
- *That all areas deemed to be suitable for the disposal of refuse to be specifically reserved for such purposes under existing planning machinery in order to protect them from encroaching urban development, or other uses which would be inconsistent with refuse disposal operations.*
- *That, when a site is reserved for refuse disposal purposes, even if there is no immediate intention to embark upon disposal operations, prominent notices, mounted on permanent fixtures, be suitably displayed at, and around the perimeter of the proposed disposal site.*

239. These recommendations set in train a series of responses to an increasing waste problem across the metropolitan area, which at the time included many municipalities fast running out of landfill sites.

²⁹ See IV, Division 1, Section 48 of the Health Act 1958

³⁰ Progress Report of the State Development Committee On the Disposal and/ or Destruction of Garbage and Other Rubbish, 1971

240. In 1973, the Local Government Engineers' Association of Victoria (**LGEAV**) conducted a symposium on the "Regionalisation of Refuse Disposal, accepting that a regional approach was the preferred meeting waste disposal needs of metropolitan Melbourne. A **Joint Committee** was then formed between the LGEAV, representatives of the Environment Protection Authority (**EPA**), the President of the Municipal Association of Victoria, the President of the Institute of Municipal Administration. It sought to demonstrate that local government could work together to provide a solution for waste disposal. In its final report of 1974 (May), the Joint Committee obtained agreement with Councils that a regional approach was the best way forward. Four regional groups were formed on an informal basis by local government³¹.
241. The Local Government (Regional Refuse Disposal) Act 1978 was proclaimed on the 1 July 1978³² and made provision for establishing a 'Regional Refuse Group'. Four regions were declared by the Governor in Council in November 1979 covering the western region, the south-eastern region, the northern region and the eastern region.
242. It was recognised that a coordinating body was required to oversee the regions and the Joint Committee, which had largely assumed this role became the Metropolitan Refuse Disposal Consultative Committee (MRDCC), albeit with little statutory power³³.
243. Since the 1971 SDC Review and the move toward a regional approach, there have been consequent reviews of waste management policy and implementation in Melbourne. This included the review by the Natural Resources and Environment Committee (**NREC**) in 1989/90 (see footnote 30); which occurred some 18 years after the SDC review. The Terms of Reference for the NREC inquiry were amongst others to (summarised) consider whether the regional approach was functioning, consideration of a metropolitan waste disposal authority was necessary and the impact of multi-national waste disposal companies on efficiency and waste collection services.
244. The inquiry acknowledged the significant and increasing costs of waste disposal and made the recommendation (Recommendation 22) that:
- Private ownership and operation of landfill tips should be permitted, provided they are well-managed and meet the standard of the proposed Metropolitan Waste Management Council.*
245. It further recognised that (sic) the private sector has a wealth of technical expertise and that for economy and efficiency purposes and to obtain the full benefits of technology – encouragement was to be given for establishing regional facilities.
246. Page 19 of the NREC final report included the following assessment of planning for waste:
- Short-term solutions to regional problems are ultimately inefficient, and not in the best interest of the wider community. What is required instead is a range of fully-considered options, an appraisal of all manner of ways and means (drawn from both local and overseas experience) on which to base effective long term decisions. It has been the task of the NREC Inquiry to examine all of these needs and alternatives in this part of the country, to determine the best strategic mix of services for greater Melbourne over the next two or three decades.*
- (Note: My emphasis)
247. The inquiry found that the regional approach was still not working³⁴ as a key issue:
- The regional changes made in the 1970's have not solved the problems caused by lack of cooperation between some Councils.*
- In my opinion, this reaffirms why metropolitan planning is important so that the needs of the broader region can be considered strategically rather than always allowing local circumstances to influence key decisions. I find that this 'bigger picture' approach is needed in regard to regional facilities, such as landfill facilities.
248. With regard to strategic planning, the 1989/90 Inquiry also found the following issues that were needing to be addressed:

31 See for example the Local Government (Regional Refuse Disposal) Bill 1978 Explanatory Notes

32 See Victorian Government Gazette, Wednesday 14 June 1978

33 See the report 'Waste Management in the Greater Melbourne Areas', May 1990 by the Natural Resources and Environment Committee (NREC),

34 See Section 4.3 (Existing Administration Procedures), page 25 of NREC Final Report (see previous footnote)

The importance of ensuring long-term strategies to avoid high costs and land use conflicts, and to ensure the availability of adequate facilities, and to generate community confidence in future disposal provisions.

249. In discussing the identification of sites for landfill purposes, the Inquiry further found that:

The need for sites for future landfills to be identified and secured for the community well in advance of need. The need for long term planning to achieve this and for it to be based on reliable data and predictions of likely future demand involving close community involvement in the planning

250. Other important reviews influencing waste management policy and strategy in Victoria include:

- The Victorian Auditor General's Office report Municipal Solid Waste Management, 2011 (**VAGO Report**) – predominantly focused on the coordination and oversight roles in waste management. A key conclusion of the VAGO Report found that:

*Significantly, waste generation continues to rise above expectations and little improvement in reducing this rate of increase is envisaged over the remainder of TZW's life, putting at risk the achievement of its outcomes. The reasons for underachievement in relation to municipal solid waste encompass a lack of **effective planning**, leadership, coordination and oversight. This has had consequences for the effective implementation of TZW, and highlights how important effective application of these core principles and practices are to achieving good program outcomes.*

(Note: My **emphasis**)

- Report of the Ministerial Advisory Committee on *Waste and Resource Recovery Governance Reform*, 31 May 2013 (**WRRG Report**)

251. The WRRG Report made the following findings at Section 5.9 (page36) in respect of waste infrastructure planning and strategic planning:

5.9 Waste Infrastructure planning – statutory land-use planning linkages

Waste strategic planning needs to link effectively to the State Planning Policy Framework and Metropolitan Planning to ensure that the location of existing and planned waste facilities are known and planned for in all aspects of state land-use planning. Land-use planning is a critical part of establishing new waste management and resource recovery sites to ensure that buffers for landfills are defined, protected and maintained. Strategic planning for waste must link to the spatial land-use planning for Victoria to effectively build up the hub and spoke model. This will enable the:

- *alignment of transport and waste planning;*
- *protection of existing sites from encroachment;*
- *assessment of sites for potential co-location; and*
- *avoidance of emissions causing environmental and public health harm.*

*The Waste and Resource Recovery Implementation Plans, prepared by the MWMG and RWMGs, are a critical link through to precinct and local scheme levels of planning. The important outcome is that **waste is considered as an essential service** and considered in planning decisions. **Planning at the local scheme, precinct and regional scale must ensure that the location of existing facilities is known, buffers defined, protected and maintained and considered in all aspects of planning.***

(Note: My **emphasis**)

252. Based on my review of the history of waste management policy and practice in metropolitan Melbourne, I conclude:
- Waste management planning began to require a spatial strategy from the early 1970's
 - A move to a managing waste management on a regional basis has been a cornerstone of the adopted approach, both informally and formally, since.
 - The regional approach has resulted in fewer landfill sites but generally requires sites with significant capacity in order to operate efficiently and economically when serving such a geographical area
 - The move to allow private operation of landfill sites at the beginning of the 1990's was recognition of the technical expertise, technology and economic investment that the private sector could bring to waste management in Victoria
 - Long standing recognition that there has been piecemeal and fragmented planning for waste.
 - That sites required for landfilling purposes should be reserved and protected through adequate planning processes – including recognition that sites not immediately required are safeguarded in order to meet long term future needs.
 - Short term planning for waste is inefficient and has not produced ideal outcomes. Longer term strategies can avoid high land costs, avoid land use conflicts and ensure appropriate facilities
 - The operation of regional waste bodies has not been without its problems, including parochial decisions – but recognition that planning for waste must take into account the needs of the whole region and local decisions should not be allowed to interfere with important metro wide outcomes.
 - The 2013 WRRG Report found that waste is an 'essential service'³⁵ and that waste management planning and statutory planning (e.g. under planning schemes) has not yet delivered appropriate integrated outcomes and sufficient protection and controls around key waste facilities. The findings of the report called for, amongst others, precinct planning to *ensure that the location of existing facilities is known, buffers defined, protected and maintained and considered in all aspects of planning*
 - There has been a demonstrated need to elevate waste management strategies firstly to a regional level and now to a coordinated metropolitan level for Melbourne in order to ensure waste management decisions are implemented in the broader interests of the metropolitan area. This mirrors the reasons why there was a need for a metropolitan planning strategy as far back as 1929.
253. In my opinion, the significance of waste management planning and the recognised shortfalls of integrated planning decisions has prompted the emergence of the current and emerging policy framework in order to safeguard the network of waste management facilities that serve the metropolitan area, including the subject site.
254. I find this to be particularly important in terms of creating long term certainty to the market driven industry that requires private operators to invest significant sums of money to develop and operate a waste management facility such as a landfill site. Short term to medium term uncertainty created by encroachment of inappropriate land uses is one of the very reasons why there has been a change in policy adopted through the EP Act and subsequent waste and resource recovering policy.
255. I discuss what these changes mean in respect of the current waste management and resource recovery policy framework in the following section.

³⁵ The words used by the Waste Resource Recovering Group Advisory Committee Report, albeit this is not reflected in any formal way in Victorian legislation or policy. It nonetheless highlights the importance of waste as a service required to support the daily operation of the city.

5.2. CURRENT WASTE MANAGEMENT AND RESOURCE RECOVERY POLICY FRAMEWORK

256. The following sets out the key policy considerations relevant to waste management policy that planning is required to have regard to under Clause 19. 03-5 of the State Planning Policy Framework.

5.2.1. Environment Protection Act 1970 (as amended)

257. The Environment Protection Act 1970 (the **EP Act**) is the principal legislation that sets out Victoria's regulatory framework for environmental protection, including waste management.
258. The EP Act was amended in August 2014 to establish the Victorian Waste and Resource Recovery Infrastructure Planning Framework and to implement many of the actions of the State's Waste Policy *Getting Full Value* (see following section). The framework requires and facilitates the need for strategic planning for waste and resource recovery and requires an integrated planning approach for the State.
259. More particularly Section 50 of the EP Act establishes the scope and content of the Statewide Waste Resource Recovery Infrastructure Plans (SWRRIPs) and the Regional Waste Resource Recovery Implementation Plans (RWRRIPs).
260. The RWRRIPs require a plan to be prepared setting out how waste and resource recovery will be managed over a 30 year period.
261. The move to a 30 year planning period is recognition that waste management planning has been ineffective in using shorter horizons.

5.2.2. Getting Full Value – The Victorian Waste and Resource Recovery Policy

262. *Getting Full Value – The Victorian Waste and Recovery Policy, April 2013 (Getting Full Value)* is the Victorian Government's waste policy. It replaced the 2005 policy 'Toward Zero Waste' (TZW)³⁶. It identifies the waste and resources recovery industry as an important economic asset to the State – with a turnover of over \$2 billion and employing approximately 8,000 people³⁷.
263. Despite the concerted efforts in Victorian waste planning to reduce waste, Getting Full Value acknowledges that waste generation for every Victorian has increased 29% over the last ten years.³⁸ It attributes population growth as one of the main reasons for this increase.
264. I have already highlighted how population projections have been a challenging issue for metropolitan strategic land use planning and, likewise, it would appear that increasing growth has impacted waste management policy, including the identification of land for waste management facilities.
265. Acknowledging this point, Section 2.2.5 of Getting Full Value also recognises the challenges faced by land use planning for current and future facilities, particularly in securing sites in the right locations to viably service existing areas:

2.2.5 Problems with the waste management and resource recovery system

Inadequate systems compound the existing challenges of waste management and resource recovery by limiting how effectively and efficiently environmental, public health and economic problems are addressed.

A lack of coordination is also affecting land use planning for current and future facilities. As our cities grow, securing land for our waste management facilities is a challenge. As population increases, our waste generation increases and as we strive for world's best practice environmental standards, finding and

³⁶ TZW is still referred to in Clause 19.03-5 of Planning Schemes but I would expect it to be replaced with Getting Full Value at the next appropriate review of the SPPF.

³⁷ Figures as per page 8 of 'Getting Full Value'.

³⁸ See Section 2.2.1 of Getting Full Value.

securing land for waste management facilities is likely to become even more difficult.

Successfully securing land close to transport corridors, points of waste generation and end markets, and where possible co-locating activities to achieve economies of scale, relies on coordination across the environment portfolio, land use planning and transport, and local government and industry investors.

266. Section 6 of Getting Full Value is titled 'Infrastructure and Planning'. In it, Section 6.1 highlights some of the challenges facing the availability of long term secure site. It states:

Waste management and resource recovery facilities need secure long-term sites and secure long-term supplies of waste materials to remain commercially viable.

267. The stated policy in Section 6 is that Government will adopt a 'hub' and 'spoke' approach – noting that hubs are major waste resource and recovery facilities, a matter that I will consider later in this report.

268. Getting Full Value also acknowledges the need to set out a long term and holistic approach to planning for waste. Accordingly, Action 6.1.1 (page 36) states the intention that a state-wide waste and resource recovery infrastructure plan is prepared with a 30 year outlook.

269. Under Section 6.2, Getting Full Value states:

Historically, planning for waste and resource recovery infrastructure has been focused on landfills, where development has often relied on relatively short-term planning and opportunistic use of ex-quarries. This has not always matched the time frames of urban land use planning and, as a consequence, conflicts between landfills and incompatible neighbouring land use are common. Development of other infrastructure such as transfer stations and compost facilities has relied on similar short-term planning with similar impacts on communities.

Investment in resource recovery and landfill facilities is significant. A facility needs to remain fully operational and productive over the life of the investment, so that expected returns are achieved. Maintaining full operational capacity and output relies on land and separation distances being secured. A lack of long-term land certainty around siting is a barrier to infrastructure investment.

Waste and resource recovery facilities are important economic infrastructure that support the growth of Melbourne and Victoria's regions. Land use and transport planning needs to accommodate existing and future infrastructure so that the projected mix and volumes of waste materials can be properly managed, to protect and enhance the liveability of our cities, towns and rural areas.

270. There are two key actions in Getting Full Value that I see as particularly relevant to my consideration of the PSP. These are Action 6.2.3 and Action 6.2.6:

6.2.3 Ensure precinct plans developed by planning authorities, including the Growth Areas Authority and local government, provide for sufficient waste and resource recovery infrastructure.

6.2.6 Protect the separation distances of sites and facilities currently within the waste management and resource recovery system from the encroachment of unsuitable uses, such as residential development, including investigating options for ensuring appropriate residential design and siting that protects communities

271. I understand that a direct consequence of Action 6.2.6 is the preparation of Local Buffer Support Program initiated by the MWRRG in 2014, albeit with little further information available publicly at the current time that might be of assistance to my consideration of the PSP.

5.2.3. Statewide Waste and Resource Recovery Infrastructure Plan

272. The *Statewide Waste and Resource Recovery Infrastructure Plan Victoria 2015-2044 (SWRRIP)* was released in June 2015. It is required under Section 50AA of the EP Act.
273. This document, whilst yet to become a reference document in planning schemes, represents the most up-to-date State Government position on waste and resource recovery infrastructure. It is my expectation that the plan will be formally referenced in the planning scheme in due course.
274. Of note, I consider the following to be particularly relevant:
- Section 1.5.2 identifies the waste and resource recovery system as an ‘essential service’
 - Section 1.6.2 states that the SWRRIP provides guidance and information for statutory decision makers exercising discretion under planning (i.e. PE Act and related decisions) and environment regulatory frameworks,
 - Section 1.7.1 defines that within the state network of waste resource recovery facilities is a network of ‘hubs’ that are of ‘State Importance’ – as defined in Section 2.2.1 of the SWRRIP
 - In particular, I find that Section 2.1.4 is relevant to land use planning decision makers:
 - 2.1.4 Providing suitable land for waste and resource recovery activities

Managing waste and material streams is essential to support viable communities. If not done strategically, perverse outcomes will occur. Land use planning plays a fundamental role in this through:

- *ensuring there are appropriate buffers around facilities to protect communities and the environment from potential adverse impacts such as dust, noise and odours*
- *ensuring there is land available for waste and resource recovery activities. Most of the investment in infrastructure over the next 30 years will be made by industry and to attract this investment, industry needs surety that land will be available over the term of the investment*
- *ensuring the appropriate planning controls to prevent the establishment of incompatible land uses near waste and resource recovery facilities which could impact on the functionality of the site.*

It is critical that land use planning and waste and resource recovery planning are integrated to protect the community, environment and public health and the functionality of Victoria’s waste and resource recovery system.

- Section 2.1.7 reaffirms the notion of ‘integrated planning’ as required by the EP Act.
- Section 2.2 outlines Waste and Resource Recovery ‘Hubs’. It defines a hub of state importance as:

State importance

The hub manages or processes a significant proportion of one or more material streams for the state.

- *The type of materials managed or reprocessed at the hub are of economic value to the state’s economy or pose a significant risk to economic, community, environment and public health outcomes if not recovered.*
- *It is an existing hub with established spokes for one or more materials. It is an integral component of the supply and/or processing chain across multiple regions or*

the state. If the functionality of the hub was compromised, it would put pressure on the viability of upstream or downstream industries.

- *The hub has access to generators, markets, ports or transport infrastructure.*
 - *The hub is in a location compatible with waste management and resource recovery activities and has capacity for future waste management and resource recovery activities.*
- Section 2.2.1 outlines the facilities of State Importance and includes the subject site and includes the following outline about why it is important to the State:

Deer Park Precinct TPI Landfill and Boral Quarry

- *This site is the largest MSW landfill in the state and reprocesses significant tonnes of C&D materials and organics.*
- *It is well located close to the metropolitan Melbourne area and major transport routes.*
- *There is potential to expand all activities onsite, including organics reprocessing, using existing buffers subject to meeting planning requirements and EPA approval.*
- *Urban encroachment and balancing community expectations in relation to the operation of the site is a future risk to the functionality of the site. If the site is to be maintained in the long term as a hub then planning needs to ensure the preservation of adequate buffer distances and that incompatible land uses are not established in proximity to the hub and activities on the site are conducted in a manner that does not impact on the community, environment and public health of surrounding land users.*
- *Community engagement is needed to determine the outcomes for this hub including potential benefits to the community of this site remaining available for resource recovery activities, and to reassure the community that activities will have minimal impact on local amenity.*

275. It is significant that the new integrated approach to waste resource recovery planning acknowledges that a site of recognised State Importance is under threat from urban encroachment. In calling for appropriate planning to ensure the ongoing functionality of the site, it is apparent that there is a need to ensure that incompatible uses are not established in proximity to it.
276. In my mind, an appropriate test when considering the introduction of uses in proximity to the subject site is whether they would be of such importance to the State that they would, on balance, be of such net value to outweigh any potential risk that might undermine the functionality and longer term viability of the Deer Park landfill.
277. I do not find sufficient information in the MPA Background Report that demonstrates an understanding of the risks that urban development might pose to the longer term operation of the subject site as a landfill site of state importance.

5.2.4. Metropolitan Waste and Resource Recovery Strategic Plan

278. The *Metropolitan Waste and Resource Recovery Strategic Plan 2009 (2009 Strategic Plan)* provides a strategic framework for the management of all solid waste in the Metropolitan (Melbourne) Region including a schedule of municipal solid waste infrastructure and a metropolitan landfill schedule identifying the location and sequence for the filling and operation of landfill sites. This plan is currently being updated under the Metropolitan Waste and Resources Recovery Implementation Plan, which I discuss below.

279. I highlight that Section 1.2 of the 2009 Strategic Plan states that land use planning was not within its scope, something that has since changed following the EP Act amendments in 2014 that now calls for integrated planning for waste, planning and transport.
280. I also highlight that the 2009 Plan was approved prior to the relocation of the Urban Growth Boundary in 2010 which introduced the potential for urban development around a range of existing quarries and landfill sites in areas around metropolitan Melbourne that had previously been predominantly rural in character e.g. Green Wedge Zone.
281. Appendix N of the 2009 Strategic Plan stated that the landfill capacity of the subject site had been calculated as extending beyond 2040. It establishes that the subject site had been assessed as having long term capacity prior to the relocation of the UGB in 2010 and the ensuing preparation of the GCPs that were finalised in 2012.

5.2.5. The Metropolitan Waste and Resources Recovery Implementation Plan (MWRRIP), Draft (June 2015)

282. The consultation draft Metropolitan Waste and Resources Recovery Implementation Plan (**Draft MWRRIP**) updates the 2009 Strategic Plan. The Draft MWRRIP is a statutory requirement under Section 50B of the EP Act. The draft MWRRIP sets out how the waste and resource recovery infrastructure needs of the greater metropolitan Melbourne region will be met over at least a 10 year period. It aims to implement the strategic directions of the SWRRIP and contains 10 priority actions for the next years to achieve this.
283. Using the words of the Draft MWRRIP it states that:
- ...the Metropolitan Implementation Plan identifies what needs to happen in Melbourne to make sure we have the right infrastructure, in the right place, at the right time.*
284. The plan provides an assessment of existing resource recovery centres as well as identifying future infrastructure needs. Section 5.6 discusses landfill facilities and in particular, Section 5.6.3 (*Determining the capacity of existing metropolitan landfill network*) provides discussion about how the capacity of the existing network is assessed.
285. I understand from the draft MWRRIP that the capacity of the existing network has been determined with a 30 year outlook and is based upon a calculation of:
- *Currently available void space*
 - *Total void space that could be made available (e.g. extension of a quarry that may be used as a landfill site).*
286. The supporting text in this section of the draft MWRRIP states:
- Most of Melbourne's licensed landfills are sited within active and closed quarry voids. MWRRIP, in calculating the potential disposal capacity of a site, has included the entire void space that could potentially become available in the next 30 years, not just the space currently extracted or included in the works-approved area.*
287. In the context of the subject site, I take this to mean that the entire area that is licensed to be quarries has been considered as possible landfill void.
288. Directly related to the above, I find that Section 8 of the draft MWRRIP provides an outline of existing metropolitan waste hubs (as in the hub and spoke model previously discussed).
289. The MRL facility is discussed under the identifier of *Deer Park Precinct* in Table 13. Relevant to the consideration of future need, it states that an implication of not resolving the medium future of this facility is that:

Melbourne would be at risk of having inadequate landfill capacity to manage waste for which there is no current resource recovery alternative.

290. The full assessment of this facility is shown in Figure 15.
291. Compared to the previous 2009 Strategic Plan, the draft MWRRIP has a much greater emphasis on land use planning and integration with the PE Act, pursuant to the directions set out in the SWRRIP.

Map ID	Waste and resource recovery hub	Description of hub location, waste and recovery infrastructure	Strategic assessment for metropolitan Melbourne
3	Deer Park precinct (including Boral Quarry TPI Melbourne Regional Landfill Ravenhall)	<p>Location: Quarry and landfill site generally bounded by Ballarat Railway line, Christies, Middle and Hopkins Roads.</p> <p>Landfill: Putrescible solid inert PTW (Category C contaminated soil and asbestos)</p> <p>Resource recovery: Organics recovery and C&D recovery</p> <p>Buffers: The Landfill BPEM applies a 500 metre landfill buffer to sensitive uses from operating and closed landfill cells on this site.</p>	<p>Description & current role</p> <p>The Deer Park precinct includes a putrescible and solid inert waste landfill currently in the south east corner of the site and Pinegro, an open windrow organics reprocessor, who recently ceased operations and will relocate from the site.</p> <p>The site has good transport connections adjoining the Western Highway, Hopkins and Middle Roads, the Deer Park Bypass, and proximity to the Western Ring Road.</p> <p>The site has a work authority to quarry the entire site but only has planning approval, works approval and licenses to operate a landfill in the lower 1/3 of the site below Riding Boundary Road. Current approved landfill air space will last 5-10 years depending on fill rates. Further planning and works approvals are expected to be progressed with the EPA.</p> <p>Challenges</p> <p>If this site does not continue its landfill operations in the medium term (beyond the current 5 – 10 years of approved airspace), Melbourne is at risk of having inadequate landfill capacity to manage waste for which there is no current resource recovery alternative.</p> <p>Growth area precinct structure planning has commenced for land located to the west of the site as part of the Mt Atkinson and Tarneit PSP. This is expected to deliver a mixed residential, industrial, business precinct with an activity centre and new railway station for approximately 20,000 residents. Land to the south of the site is also subject to growth area planning for future industrial development.</p> <p>Future considerations</p> <p>There is community concern with the site's current operations (particularly odour), and with the potential long term operation of the site as a landfill. However if the entire site is not appropriately acknowledged in current precinct structure planning processes, its long term role may be diminished with implications for the metropolitan waste and resource recovery system.</p> <p>The Deer Park precinct has potential capacity to operate beyond 2026. The site also has the potential to accommodate resource recovery operations over the long term, in line with the strategic directions of the WRRIP.</p>

Figure 16 – Strategic Assessment of 'Deer Park' waste and resource recovering hub as per Section 8 of the MWRRIP.

292. I find Section 7 of the draft MWRRIP particularly relevant to my consideration of the PSP and the subject site. It is titled *Land Use Planning and Transport*.
293. In summary, 7.1.1. states that siting and buffer protection are a priority action for the MWRRIP. Section Section 7.2 reaffirms the need for integrated land use, transport and waste and resource recovery planning to be carried out in an integrated way. This is consistent with the *Objectives* of the Victorian Waste and Resource Recovery Infrastructure Planning Framework, as outlined at Section 50A of the EP Act, wherein it requires waste and resource recovery policy to be '*integrated with land use and development planning and policy*'.
294. I understand that the MWRRG is currently undertaking the *Local Government Buffer Support Program (LGBSP)* which relates to the priority action I refer to above in 7.1.1. of the draft MWRRIP (which is also a response to the Actions set out in Getting full Value). The objectives of the LGBSP are:
- *support and empower metropolitan local government to respond to the land use planning challenges and opportunities set out in Getting full value, Plan Melbourne, the draft Statewide Waste and Resource Recovery Policy (SWRRIP) and the Metropolitan Waste and Resource Recovery Strategic Plan (Strategic Plan)*

- *develop a suite of land use planning policies, tools and controls that can be used by local planning authorities to define protect and maintain buffers to waste and resource recovery facilities*
- *deploy tools for an initial tranche of sites within metropolitan Melbourne deemed to be a high priority by the Getting full value Project Control Board*
- *support and establish an action group of state and local government senior metropolitan planners and waste managers to work with MWRRG and the waste portfolio on implementing buffer controls.*

295. It is prioritising the review of buffer controls at seven priority sites and this includes the subject site. The LGBSP is not at a stage where any draft policy or discussion documents have been available that might inform my consideration of the PSP.

296. The Draft MWRRIP represents the most up to date Government policy and I expect it to largely represent the final MWRRIP. In my opinion, I find the need for better integrated planning only highlights the previous disconnect between waste management planning and strategic land use planning in both Victoria and across the metropolitan area. The onus is now upon the land use planning system to be updated to better reflect the policy shift.

5.2.6. EPA Waste Management Policy (Siting Design and Management of Landfills), 2004

297. The EPA's Waste Management Policy (Siting Design and Management of Landfills) 2004 (**WMP**) sets out the objectives and standards for the operation of landfill facilities in Victoria. It relies on the Best Practice Environmental Management (BPEM) to set specific siting requirements.

298. It establishes a whole of the environment approach with regard to the siting and operation of landfill facilities. Notably, it is the operator of a landfill that is required to meet BPEM.

299. The EP Act requires landfills in Victoria to comply with the relevant waste management policies and State Environment Protection Policies (SEPPs).

5.2.7. Best Practice Environmental Management: Siting, design, operation and rehabilitation of landfills – EPA Guidelines, August 2015

300. The EPA's Best Practice Environmental Management guidelines, 'Siting, design, operation and rehabilitation of landfills', April 2015 (**Landfill BPEM**) represent the most up to date guidance in respect of the siting and operation of landfills, including buffer distances.

301. Notably, Table 5.2 within the BPEM establishes the buffer distance from building or structures for landfill gas migration as 500m. This distance is to be maintained 30 years after the operation of a landfill facility ceases.

302. The MPA references the 500m landfill buffer in its background report, noting that it will be 'internalised' within the Deer Park Quarry/ MRL landfill site as part of the proposed MRL extension. As a result, the MPA found that no further controls were required within the PSP area to provide appropriate buffers to sensitive uses.

303. For the purposes of considering the PSP, I have assumed that the MRL facility will operate to the requirements placed on it in terms of the BPEM. The separate planning permit application for the extension to the MRL will consider the technical issues associated with the future operation and management of the site.

5.2.8. Assessing Planning Proposals near landfills, EPA Draft Guidance, June 2016

304. The guideline was produced by the EPA to assist responsible authorities making decisions in respect of planning permit applications made under the PE Act.

305. It sets out why landfills are important to Victoria's waste management infrastructure and why buffers are required. It recognises a number of offsite impacts may occur from a landfill and states in Section 2.1. that:

Other potential offsite impacts from a landfill, such as noise and dust, will usually fall within the buffer required for landfill gas and odour. Local circumstances may require separate assessments.

306. In my mind this establishes the point that while a buffer distance, such as 500m might be nominated in the BPEM, it is not a point beyond which off-site impacts will not occur. Local environmental conditions, such as prevailing winds, may require more detailed assessment.

307. This section of the guidelines also includes a definition of sensitive land use (in the context of landfill gas and odour):

In the context of landfill gas, any building or structure is considered sensitive, because of the risk of explosion or asphyxiation'.

308. I turn to this matter of 'sensitive use' definitions later in the context of the high pressure gas pipeline that also impacts the PSP area.

309. The guideline indicates that the Landfill BPEM recommends that planning and responsible authorities undertake a Section 53V Audit to assess the risk of landfill gas migration impacting on proposed development.

310. I am not aware that the MPA has undertaken any risk assessment in respect of the PSP area either in terms of potential landfill buffers or quarry buffers.

5.2.9. The Planning Framework – Plan Melbourne and the State Planning Policy Framework (SPPF)

311. From a planning perspective, the current metropolitan strategy, Plan Melbourne, recognises the challenge of achieving a citywide waste management strategy that minimises waste, encourages innovation in resource recovery infrastructure and provides security of land tenure for the industry.

312. Direction 5.8 of Plan Melbourne (at page 150) acknowledges that as the population grows, so will our waste production and need for disposal. Whilst policies seek to minimise waste production, Plan Melbourne recognises:

...that waste management and resource recovery facilities need secure, long-term sites and secure, long-term supplies of waste materials to remain commercially viable. They need access to existing freight corridors between transfer stations, recovery facilities and landfills and markets for end products; and to be buffered from incompatible and sensitive land uses.

The planning system must ensure that waste management and resource recovery sites and infrastructure are protected from incompatible nearby land uses. It must also ensure that waste management and resource recovery systems provide adequate infrastructure for new urban developments in a way that ensures the health and amenity of residents are protected

313. I find that Plan Melbourne could be considered consistent with the integrated approach to waste and resource recovery planning required under the EP Act.

314. It gives policy recognition to waste management and resource recovery infrastructure as an essential part of the urban infrastructure and seeks to give greater protection to waste and resource recovery sites.

315. A key initiative of policy Direction 5.8 (of Plan Melbourne), is to separate waste management and resource recovery facilities from urban encroachment and assess opportunities for new waste facilities. The accompanying discussion of this initiative notes:

A lack of long-term land certainty is a barrier to infrastructure investment. Waste and resource recovery facilities need to remain fully operational and productive over the life of the investment. This relies on land and separation distances being secured, and on appropriate zoning of land within designated separation distances surrounding landfill sites and resource recovery sites.

We will create direct links between waste and resource recovery infrastructure planning and land-use planning by applying a combination of statutory measures and clearer guidance to identify and protect waste and resource recovery sites and separation distances.

316. This language and tone is consistent with that adopted through the various waste and resource recovery policies and strategies that I have considered in my report, as well as long standing metropolitan planning strategies that have recognised the need to protect important existing assets and facilities.
317. It is evident that the onus would now appear to be on the planning system to reflect and incorporate current waste and resource recovery policy in order to better inform land use planning decisions, particularly where land use conflict around facilities of state importance may occur.
318. It also appears evident that further planning controls associated to 'buffers' at identified facilities are most likely to emerge in the near future, otherwise Melbourne will risk compromising many of its important utility and service infrastructure.
319. The current State Planning Policy Framework (**SPPF**), at Clause 19.03-5 - *Waste and Resource Recovery*, provides the bridge from environmental policy to planning policy, albeit it reflects the previous 2005 policy – TZW³⁹. While it also reflects the 2009 Strategic Plan I have previously discussed, the more recent update (that remains in draft) provides much stronger focus on the role of land use planning and the 'integrated' approach.
320. Clause 19.03-5 has the following objective:

To avoid, minimise and generate less waste to reduce damage to the environment caused by waste, pollution, land degradation and unsustainable waste practices

321. Strategies to achieve this objective are:

- *Establish new sites and facilities to safely and sustainably manage all waste and maximise opportunities for resource.*
- *Encourage facilities for resource recovery to maximise the amount of resources recovered.*
- *Provide sufficient waste management and resource recovery facilities to promote re-use, recycling, reprocessing and resource recovery and enable technologies that increase recovery and treatment of resources to produce energy and marketable end products.*
- *Encourage waste generators and resource generators and resource recovery businesses to locate in close proximity to enhance sustainability and economies of scale.*
- *Ensure buffers for waste and resource recovery facilities are defined, protected and maintained.*
- *Site and manage waste disposal and resource recovery facilities in accordance with the Waste Management Policy (Siting, Design and Management of Landfills) (EPA, 2004).*

322. I anticipate that this will be updated to reflect the most up-to-date policy in due course.

³⁹ Victoria's Towards Zero Waste Strategy (Department of Sustainability and Environment, 2005)

5.3. FINDINGS IN RESPECT OF WASTE AND RESOURCE RECOVERY POLICY FRAMEWORK

323. Overall, it is apparent that there is a very considered and deliberate change to waste and resource recovery policy and planning in Victoria, with a clear move toward an integrated approach to bring waste, land use and transport planning together, as set out in the 2014 changes to the EP Act.
324. I find one of the major issues to be that urban encroachment is a key issue facing many of the State's most important waste and resource recovery issues, including the subject site.
325. I highlight, for example, that the SWRRIP describes encroachment or interface issues as one of the main threats at eight of the nine identified state important facilities.
326. Minerals exploration in Victoria is likewise experiencing the same problems of encroachment as waste and resource recovery facilities. This is not a surprise as, typically, landfilling and quarries take place on the same site, such as the subject site or the Wollert Hanson facility.
327. To illustrate this point, I refer to the Final Report entitled '*Inquiry into greenfields mineral exploration and project development in Victoria*' (May 2012) by the Economic Development and Infrastructure Committee (EDIC). It heard, for example, the following type of comments in relation to the '*encroachment of urban development into buffer zones around extractive industry sites and the effects this has on the industry*':

*There is an issue about growth development into the buffer zones and what it does to the development over time. We have seen it in extractive industries, particularly through the Dandenongs and in other parts of Victoria, whereas developments have moved into the buffer zone, they have impacted on the capacity of the industry to continue to operate. We think there needs to be some protection of the buffer zone to ensure that the industry can complete its work program and then close the facility down before ... you allow development.*³¹⁴

*Mr Robert Spence, Chief Executive Officer of the Municipal Association of Victoria (MAV)*⁴⁰

328. This appears to have informed Recommendation 6 of the abovementioned EDIC Final Report that, much like *Getting Full Value*, called for more integrated planning around competing land uses:

That the Victorian Government develops a state-wide integrated, strategic land use policy framework to better manage competing land uses in Victoria. This framework should be subject to periodic review giving consideration to economic, social and environmental factors.

329. I highlight that in the Government's response of 27 May 2013⁴¹, it accepted the above recommendation.
330. This further reflects a strong and ongoing theme reflected in mineral resource and waste planning since the 1970's around the need to ensure appropriately located sites and separation distances for important quarries and waste management facilities and to ensure that facilities remain viable and attract important continued investment.
331. Most recently, this is reflected with the significant change of approach demonstrated between the 2005 Waste Policy (Towards Zero Waste) and the 2013 policy *Getting Full Value*. In 2005, TZW acknowledged land use planning wasn't in its 'scope'. *Getting Full Value*, however; devotes an entire section to infrastructure and planning – along with a series of actions to implement change that will ensure integrated planning as part of longer term planning for waste and resource recovery planning.

⁴⁰ Replicated extract of the submission of Rob Spence, Chief Executive Officer, Municipal Association of Victoria as per the transcript of evidence, 19 September 2011, p. 2, as per page 78 of the Final Report of the *Inquiry into greenfields mineral exploration and project development in Victoria*, May 2012 by the Economic Development and Infrastructure Committee

⁴¹ Economic Development and Infrastructure Committee Inquiry into greenfields mineral exploration and project development in Victoria: Government Response, 27 May 2013

332. This change of emphasis toward integrated planning has principally been advanced under the policies and strategies required by the EP Act, rather than land use planning and the PE Act. Nonetheless, Plan Melbourne has reflected the key issues facing planning around landfill and waste recovery centres and acknowledges a need to better identify and protect facilities along with aligning waste planning and land use planning i.e. integrated planning.
333. Significantly, the UGB alteration in 2010 was made in advance of much of the current waste and resource recovery policy. Similarly, the 2012 Growth Corridor Plans were prepared in advance of the Government's updated waste and resource recovery policy Getting Full Value.
334. Without doubt, the combination of the UGB shift, along with increasing pressures on accommodating population growth within the metropolitan area has placed increased pressures on landfill facilities of state importance via possible urban encroachment. This includes major facilities in Melbourne's growth areas that include the MRL, Wollert Hanson (Whittlesea) and the Werribee Landfill (Wyndham) that were most recently brought inside the UGB.
335. From a strategic planning perspective, I find that there is a growing body of policy and evidence to demonstrate that a range of important urban services and facilities are coming under increasing threat from urban encroachment by uses that are sensitive to uses with potential adverse amenity potential. In turn, this has triggered the need to at least consider or implement new planning provisions or controls such as in the examples of Ministerial Direction 14 (Port Environs), the need to convene the Major Hazard Facilities Advisory Committee or for Government to respond to the recommendations made by the Economic Development and Infrastructure Committee following the *'Inquiry into greenfields mineral exploration and project development in Victoria'*. In a similar way, the MWRRG is currently investigating the appropriate response required of the land use planning system in order to provide appropriate clarity about buffers around waste and resource recovery facilities.
336. While I recognise that waste and resource recovery policy is predominantly focused on the premise of reducing waste going to landfill facilities, it continues to be an essential need in servicing the broader metropolitan area, particularly as it continues to experience significant population growth.
337. Continued and perhaps unforeseen trends in population growth over the last fifteen years have required population forecasts to be updated and quite significantly. For this reason I find it is unlikely that growth pressures are likely to recede in the foreseeable future. Indeed, I find that strategy and policy has sometimes struggled to keep up-to-date with revised population projections, as reflected in the population forecasts used by Getting Full Value that were out of date by the time the SSWRIP was finalised.
338. Plan Melbourne has identified that the UGB is going to be fixed. If population growth continues at levels higher than projected, this will have multiple effects across the metropolitan area, not least on the demand for services and facilities.
339. The State Government, prudently, appears to recognise the challenges that land use planning faces around key waste and resource recovery facilities, however, the Local Buffer Support Program is not advanced sufficiently to provide any further guidance in respect of what changes this might mean to the land use planning system.
340. Generally, Plan Melbourne and the general intent of the Growth Corridor Plans is to acknowledge and provide important natural resource and waste facilities from encroachment for the longer term.
341. There are some very obvious consequences of undermining the location of waste and resource recovery facilities that are recognised in various State Government policies, not least that they cannot continue to operate; that their future is made uncertain by urban encroachment and cannot, for example attract the levels of investment required to invest in technology.
342. I consider next whether the PSP has responded adequately to this broader strategic need to protect the state important landfill facility at the subject site.

5.4. HAS THE PSP RESPONDED ADEQUATELY TO THE ADJOINING MRL AND DEER PARK QUARRY?

343. The PSP Background Report details how buffer and separation distances to the existing quarry and landfill facility have been addressed and refers to land use restrictions and permit requirements under the draft UGZ Schedule 9.
344. In particular, I understand that the MRL operator has agreed to a request from the MPA to internalise the 500m landfill buffer north of Riding Boundary Road. This alone is considered by the MPA to be sufficient to not require further planning controls within the PSP. It disregards the provisional buffers outlined in the relevant planning permit application to extend the MRL.
345. In the context of a landfill facility of acknowledged state importance, I find already that internalised buffers are somewhat of a compromise to the effective future use of this asset, contrary to much of the strategic intent of waste planning and land use policy I have considered in this report which aims to protect and safeguard the location of waste and resource recovery facilities as well as making the best use of existing facilities.
346. I refer, for example, to the extract from the Draft MWRRIP (2015) earlier in my report that notes the longer term capacity of landfill sites was calculated on the potential void that could be achieved based upon the full extent of quarrying, rather than just a calculation of existing licensed landfill areas.
347. This reflects the very deliberate policy shift through the Getting Full Value and the EP Act that longer term planning is required for the waste and resource recovery industry.
348. This broad and holistic metropolitan strategy has relied upon this longer term capacity to schedule future landfill needs and would, I understand, need to be revisited if a significant facility, such as the subject site, was prevented from being extended.
349. In my opinion, a need to revisit the metropolitan waste strategy would become urgent if the MRL facility is not able to be expanded. I refer here to the *Strategic Assessment* of the Deer Park facility contained in the draft MWRRIP (shown earlier in my report at **Figure 15**), wherein it concluded that if the facility could not expand beyond its current operating capacity:
- '...Melbourne would be at risk of having inadequate landfill capacity to manage waste for which there is no current resource recovery alternative.'*
350. Where a facility is identified as being of state importance, I believe the onus should be on the encroaching PSP to clearly demonstrate why the future capacity of the MRL and potentially the Boral quarry should be compromised, particularly in the broader policy context that I have discussed and the importance of the MRL in meeting metropolitan Melbourne's landfill needs. I don't find that the PSP has demonstrated this adequately.
351. The benefit I can see from internalising the 500m BPEM buffer north of Riding Boundary Road appears to be that the operator can ensure that there is no encroachment within it and will retain control of it.
352. By contrast, the Wollert Hanson landfill (in the City of Whittlesea) is a major landfill facility of recognised state importance, as per the SWRRIP. I note that it was not compromised by the preparation of the Wollert PSP under Amendment C187 (still ongoing) and a 500m external buffer was applied in order to consider the nature of appropriate land uses in the PSP. In preparation of the PSP, the City of Whittlesea and the MPA undertook a qualitative risk assessment⁴² to determine the extent of potential impacts on the PSP area before they commenced preparation of the urban structure.

⁴² See Hanson Landfill and Quarry – Qualitative Risk Assessment, 31 October 2012 by Golder Associates. Background report prepared on behalf of the (then) GAA

353. In its Background Report⁴³ that was exhibited as part of Amendment C187, the City of Whittlesea/MPA found the following conclusions in respect of the Wollert Hanson landfill and quarry:
- *Odour impacts are the primary issue affecting development of sensitive land uses within the Wollert PSP area, with impacts potentially exceeding the 500 metre nominal landfill gas and noise separation distances in all directions (with the exception of a small section southwest of Boundary Road and Epping Road).*
 - *Site-specific risk assessments of landfill gas migration will be required for any development or construction (including sub-surface infrastructure) within the 500 metre landfill gas buffer.*
354. I acknowledge that qualitative risk assessment is beyond my area of expertise, yet I consider that the findings in the Wollert PSP Background Report demonstrate that the notion of a hard boundary doesn't prevail where buffer controls exist – effects may still be experienced beyond it. I find this to be similar to noise impacts associated with airport environs controls. For this reason I find that this demonstrates caution should be taken when contemplating whether sensitive uses should encroach 'hard up' to any 'buffers'. Given that there are substantial areas of land available for development in the growth corridors, I find there to be no compelling reason why sensitive uses might need to be put just the minimum distance away from any recognised quarry or landfill of state importance, particularly where there is demonstrated long term capacity for those uses to continue, such as the subject site. It would seem entirely appropriate that less sensitive uses are located around such facilities where it is safe to do so.
355. The exhibited Wollert PSP identified light industrial uses for the entire buffer area, using the Industrial 1 Zone as the underlying zone, as per the exhibited UGZ Schedule 5.
356. In its final report, the Panel considering the Wollert PSP also made the recommendation at Section 3.2⁴⁴ that any application in the quarry and landfill buffer must demonstrate compliance with the BPEM for the Siting Design, Operation and rehabilitation of Landfills:
- Any application to subdivide, use or develop land within the Wollert Landfill and Quarry Buffer and the Odour Buffer as shown of Map 2 of this Schedule, must demonstrate compliance with the Best Practice Environmental Management: Siting Design, Operation and rehabilitation of Landfills (Environment Protection Authority, 2014 – Publication 788.2) to the satisfaction of the Responsible Authority, in consultation with the Environment Protection Authority.*
357. In the context of the approach adopted in the preparation of the Wollert PSP, I am not aware of the same process being followed by the MPA during the preparation of the Mt. Atkinson and Tarneit Plains PSP in terms of preparing any qualitative risk assessment.
358. I also find that the exhibited Mt Atkinson and Tarneit Plains PSP does not contemplate use of the above requirement to satisfy the BPEM siting and design guidelines within any defined buffers. In this regard, I would potentially recommend including this condition as a 'catch all' requirement within the UGZ Schedule 9 rather than attempting to define particular uses and or development conditions that may or may not capture inappropriate uses within the buffer area. Objective 10 of the PSP should also be updated accordingly.
359. If this were to occur, then I would find the principle of the Commercial 2 Zone for part of the quarry buffer to be acceptable because the responsible authority would have the opportunity to assess every application to ensure a satisfactory outcome for a use or development in the buffer area.

⁴³ Precinct Structure Plan Background Report, PSP 1070 Wollert, April 2015 prepared by City of Whittlesea and the MPA.

⁴⁴ Section 3.2 of the Wollert PSP Panel Report: *Management of the landfill and quarry buffer*

5.5. GAS PIPELINE AND INTERFACE WITH PSP AREA

360. I turn now to the presence of the high pressure gas pipeline running alongside the eastern boundary of the PSP area that is noted on several of the draft exhibited PSP plans, including Plan 3 – Future Urban Structure and on Plan 12: Utilities. In my opinion this raises some interesting issues in terms of the range of 'sensitive uses' that can occur alongside it versus the type of sensitive use contemplated by the EPA BPEM for landfill and quarry buffers. There is also overlap between quarry, landfill and gas pipeline 'buffers'.
361. Plan 12 (Utilities) of the PSP includes the delineation of the 'measurement length' with the notation that it is 571m from (what I presume to be) the centre of the gas pipeline itself. Plan 12 is shown in Figure 15 below.



Figure 17 – Plan 12 of the exhibited draft PSP, showing the gas pipeline 'measurement length'.

362. I was unable to find a written description in the exhibited UGZ schedules or the PSP about the particular specifications of the 'measurement length' such as how it might have been calculated, who verifies such a calculation and whether it is fixed or variable.
363. To further investigate this, I reviewed the background study prepared by GHD (on behalf of the MPA) titled: *Mt Atkinson and Tarneit Plains PSPs High Level Utility Servicing and Infrastructure Assessment*, September 2014 (the **GHD Report**). It was commissioned by the MPA to inform the preparation of the PSP. It made the following comment, in Section 5.4.1 (*Spatial Requirements*) about the gas pipeline and its easement and highlighted the need for 'clearances to gas assets within the 'measurement length on either side of the pipeline easement (text directly replicated):

Clearances

Clearances to gas assets need to be maintained for asset integrity reasons, but also in the interest of public safety. This is of particular importance for transmission mains.

An incident whereby a damaged gas main caused an explosion, while unlikely, has the potential to cause enormous damage and loss of life in the vicinity of the pipeline. For this reason, APA GasNet prefers that facilities such as schools, hospitals and high density development are not located in close proximity of their gas transmission mains.

The critical offsets are in regard to the 500mm transmission mains running north-south along Hopkins Road and east-west along Middle Road. The 'measurement length' for both of these pipelines is 571m and as stated above sensitive use buildings are preferred not to be located within this distance from the gas pipeline. The 'measurement length' for the 150mm north-south pipeline along Hopkins Road is 164m and 214m for the 200mm east-west pipeline along Middle Road.

Alternatively, if this is not able to be achieved, transmission mains could be deepened, relocated, concrete encased or relocated to reduce the likelihood of an incident occurring and to protect the main or procedures improved.

364. The MPA's Background Report provides further discussion (see page 11) about the measurement length and what it means in relation to the PSP. I replicate the relevant extract below for ease of reference:

The Future Urban Structure (FUS) has been designed to minimise sensitive uses within the pipeline measurement length. Schedule 9 to the Urban Growth Zone will make specific provision for works within the gas pipeline measurement length and will require notice be given to the persons or bodies identified in the Planning Scheme when a permit application for certain uses is assessed. Specific provisions within the Schedule will require a construction management plan to be submitted and approved by the responsible authority prior to commencement of work.

365. At this point, I am unclear about precisely what a 'sensitive use' means in the context of the above extracts from the GHD report and the MPA Background Report. The GHD report refers to schools, hospitals and high density development; while I can find no further definition or clarification in the PSP or the Background Report to assist me.
366. The term 'sensitive use' is also used in the exhibited UGZ Schedule 9 in relation to contaminated land (Clause 3.4) and in conjunction with the quarry buffers, as for example, the term '*quarry sensitive use buffer*' identified on Plan 2 (Precinct Features) of the PSP or in Objective 10⁴⁵ of the PSP.
367. It is not clear whether the term 'sensitive use' means one and the same in all instances or whether it is applied in a different manner.

⁴⁵ Objective 10 of the exhibited draft PSP states: '*Ensure appropriate planning controls are established for uses located within the quarry sensitive use buffer to ensure the ongoing viability of these uses and the Deer Park Quarry into the future*'.

368. With regard to the matter of the gas pipeline, I note that Clause 6.0 of the exhibited UGZ9 Schedule requires notice to be given for an application to 'use' land for a range of nominated uses within the 'high pressure gas transmission pipeline measurement length' as shown on Plan 12 of the exhibited draft PSP. These uses are:
- *Child care centre*
 - *Cinema*
 - *Education Centre*
 - *Hospital*
 - *Residential aged care facility*
 - *Corrective institution*
 - *Place of assembly*
369. Clause 6.0 of the Schedule is not so specific to define the uses contained therein as 'sensitive uses'.
370. I note a recent attempt to define 'sensitive uses' in the context of land use change alongside gas pipelines in the Wollert Precinct Structure Plan⁴⁶. It adopted a broader range of 'sensitive uses' than above.
371. In the Wollert PSP Panel Report, section 3.8.3 outlined a proposed notice provision for inclusion into the UGZ 5 Schedule to capture the following uses that the MPA used to try and better define 'sensitive uses':
- *Accommodation (other than a dwelling on a lot or a Dependent person's unit),*
 - *Dwelling where density will equal or exceed 30 dwellings per net developable hectare,*
 - *Child care centre,*
 - *Education centre,*
 - *Place of Assembly,*
 - *Retail premises,*
 - *Cinema based entertainment facility,*
 - *Hospital*
 - *Aged Care Facility*
372. I highlight here the inclusion of retail premises and accommodation, which differs somewhat in approach to the Mt Atkinson and Tarneit Plains PSP. I also note that the Panel supported the above approach in the Wollert PSP.
373. I understand that retail can typically be regarded as a sensitive use, and there was discussion about the appropriateness of a neighbourhood activity centre, for example, within the measurement length in the Lara West PSP, as described in the Panel Report⁴⁷. I am aware also that the urban structure in both the Wollert PSP and the Donnybrook Woodstock PSP (subject to Amendment GC28) in the City of Whittlesea have been impacted by the presence of high pressure gas pipelines that have required sensitive uses, including town centres, to be located outside the measurement length of the pipeline.
374. The PE Act does not define sensitive use and nor do the Victorian Planning Provisions (VPPs) in the context of gas pipelines.
375. I am unclear how the MPA has sought to determine the list of 'sensitive uses' in the context of the draft Wollert PSP and I do not suggest that it has any rigour or clear basis to it, however; alongside

46 The Wollert Precinct Structure Plan is the subject of Amendment C187. I have reviewed the Panel Report (Part A Panel Report - Wollert Precinct Structure Plan) DATE

47 See for example, page 36 of the Report of the Panel: Greater Geelong Planning Scheme Amendment C246 Lara West Precinct Structure Plan, 19 July 2013

the approach in the Mt Atkinson and Tarneit Plains PSP, it highlights further uncertainty in approach to the type of acceptable uses in the measurement length.

376. The MPA Background Report refers to Australian Standard AS2885⁴⁸ in relation to the 'measurement length'.
377. AS2885 is an industry standard specific to pipeline operators. It addresses a number of very technical matters beyond my area of expertise, however, I understand that it addresses the design and construction of carbon and carbon manganese steel pipelines and associated piping and components that are used to transmit single-phase and multi-phase hydrocarbon fluids, such as natural gas. It also addresses pipeline safety management (as referred to in the MPA Background Report) and the requirements upon pipeline operators, the 'licensee', to 'reduce residual risk to an acceptable level'.
378. AS2885 was approved on 27 July 2012 and published on 20 September 2012. It superseded the previous 2007 version. I understand the history of a standard applying to gas pipelines dates back to 1972.
379. The measurement length term used in the PSP and MPA Background Report, is defined in AS2885 as:

The measurement length is the radius of the 4.7kW/m² radiation contour for a full bore rupture, calculated in accordance 4.10.

380. From this, I understand that a measurement length is based on a range of factors set out in Appendix Y to AS2885. These include the pipeline length, maximum operating pressure (MAOP), pipeline temperature and pipeline thickness, for example.
381. I further understand this to be the area alongside a pipeline where the heat radiation caused by a full bore rupture could lead to hospitalisation or fatalities. The measurement length is then used by the pipeline operator to define the area in which it must consider all credible threats to the ongoing operational safety of the pipeline.
382. Clause 4.7.4 of AS2885 contemplates 'sensitive uses' in proximity to the gas pipeline. In trying to better understand what this might mean in relation to the Mt. Atkinson & Tarneit Plains PSP, I have noted that AS2885 defines sensitive uses in the following manner:

Sensitive use (S): *The sensitive use location class identifies land where the consequences of a failure may be increased because it is developed for use by sectors of the community who may be unable to protect themselves from the consequences of a pipeline failure. Sensitive uses are defined in some jurisdictions, but include schools, hospitals, aged care facilities and prisons. Sensitive use location class shall be assigned to any portion of pipeline where there is a sensitive development within a measurement length. It shall also include locations of high environmental sensitivity to pipeline failure.*

383. I can perhaps understand why there may be a desire to further define 'sensitive uses' as in the Wollert PSP on the basis that the following words within AS2885 suggest significant potential for variable interpretation. Reliance on the words in AS2885 could manifest in further uncertainty and dispute between landowner, responsible authority and pipeline operator about precisely what uses might be captured by this Requirement:

Sensitive uses are defined in some jurisdictions, but include schools, hospitals, aged care facilities and prisons (my emphasis)

384. I do not consider that any of the land use terms are well defined in AS2885 when compared to the type of definitions used in planning schemes. This is not surprising however, given that AS2885 was never drafted as a land use planning instrument.
385. Evidently, the attempt to define 'sensitive uses' has not yet been resolved satisfactorily yet in the context of gas pipelines and PSPs.
386. Despite this, I am comfortable that the use of the term 'sensitive use' is typically used to try and capture uses where there may be a density of people, including those unable to protect themselves,

⁴⁸ AS 2885.1 Australian Standard: Pipelines - Gas and liquid petroleum Part 1: Design and construction, September 2012

that would be unacceptable if a rupture to the gas pipeline were to occur. Typically, I note that other PSPs include retail activity centres as a sensitive use.

387. Although Mt Atkinson and Tarneit Plains doesn't immediately define sensitive use, the MPA's attempt to capture uses such as cinema or retail (as at Wollert) as a sensitive use is interesting in the context of the Mt Atkinson and Tarneit Plains PSP on the basis that the proposed underlying zone for part of the area affected by the measurement length is 'Commercial 2' in the area identified on the FUS of the PSP as Business/ Large Format Retail.

388. In this location, shop (e.g. supermarket up to 1800m²), restricted retail (up to 40,000m²) and office are as-of-right uses, meaning that it would allow, as a possible scenario, a sensitive or potentially sensitive use (depending on whether retail is considered sensitive) to be established without a use permit if it were simply to occupy a building. I find that all of these uses could, potentially, be operated at a reasonable intensity and generate significant numbers of people on site. I see no difference between these types of uses and a 'place of assembly' that Clause 6.0 of the exhibited PSP nominates as a use it seeks to capture through its notice requirements.

389. Despite these provisions of the exhibited UGZ 9 Schedule, Objective 28 of the exhibited draft PSP seeks to (replicated):

Ensure sensitive land uses are minimised within the measurement length of the high pressure gas transmission pipelines adjacent to Hopkins Road and Middle Road, and that construction is managed to minimise risk of any adverse impacts.

390. I make the observation here that in contrast to the rather ad-hoc approach currently being taken to land use planning alongside gas pipelines across different PSPs, the draft EPA *Guideline 'Assessing planning proposals near landfills'* includes a very clear definition of sensitive land use (in the context of landfill gas)⁴⁹:

In the context of landfill gas, any building or structure is considered sensitive, because of the risk of explosion or asphyxiation'.

391. The term sensitive use in a landfill gas buffer context appears to be far more encompassing than the approach taken to gas pipelines, yet both carry the risk of gas explosions associated to them.

392. The BPEM for the Siting, Design and Operation of Landfills sets out more specifically the risks of encroachment into landfill buffers. In the context of possible gas explosions, it states:

Proposed developments and any works within the recommended landfill buffer can pose a safety risk by potentially providing preferential pathways for landfill gas migration, or providing an environment where landfill gases can accumulate to dangerous levels. All buildings and structures should be considered, including:

- *buildings and structures used for sensitive or non-sensitive uses*
- *change of use*
- *infrastructure installation*
- *installation of pipelines.*

393. As a comment, I find the BPEM Guideline an interesting contrast to the lack of guidance around encroachment into the measurement length of a gas pipeline. Unfortunately, I do not have any further technical advice available to me to determine whether the questions of land uses within the measurement length have been adequately addressed. However, judging by the varied approach in other PSPs, such as Lara West or the Wollert PSP, it is apparent that the matter needs to be better resolved, particularly as these areas are not yet developed

394. I find support for my view that there is currently a policy vacuum that is leading to a variety of ad-hoc approaches to planning alongside gas pipelines in the submission made by the MPA in response to the terms of reference (TOA) handed down to the Major Hazards Facilities Advisory Committee (MHFAC) during its 'targeted consultation' process carried out in November 2015. In an extract from the MPA letter (to the MHFAC) of 13 November 2015, the MPA asked for guidance on the matter of buffers or other planning tools to deal with land use change alongside gas pipelines:

⁴⁹ See Section 2.1,

The MPA considers the Major Hazards Facilities Advisory Committee as an opportunity to develop improved, consistent land use planning practices within the vicinity of these pipelines and requests the Advisory Committee's specific consideration of high pressure gas pipelines as a use with 'adverse amenity potential' under Clause 5(b) of the Terms of Reference. The MPA also seeks the Advisory Committee's recommendations regarding appropriate buffers or other planning tools, or other tools outside planning legislation where relevant.

Additionally, the MPA seeks the Advisory Committee's recommendations on appropriate planning responses to potential future major hazard facilities, for example APA's potential gas-fired power station located in the Northern Quarries investigation area, in the municipality of Whittlesea.

Figure 18 – Extract of MPA letter of 13 November 2015 to the Major Hazard Advisory Committee review

395. I have not seen any comparative technical assessment of risk or the consequential impacts between the type of explosion that could occur as a result of landfill gas versus a high pressure gas pipeline rupture as part of the preparation of the PSP. Consequently, I do not understand if they carry similar risk and consequences or are very different in nature.
396. Notwithstanding this, it would appear that the EPA BPEM regards any structure or building, regardless of use, as a potential risk where a possible explosion may occur as a result of landfill gas. In contrast, an explosion associated to a gas pipeline appears to be concerned only with a more limited range of uses.
397. The PSP is proposing to allow commercial uses, such as 40,000m² bulky goods within the measurement length. As an example, an IKEA store in Australia is typically around 26-28,000m² in area and can generate a significant congregation of people. Based on the draft exhibited PSP, there would be no further need to further consider any risk associated to this type and intensity of use.
398. For these reasons, I would recommend that the planning authority needs to further satisfy itself why this apparent difference in approach is adopted toward the risk of explosion, particularly where there is a combined overlap of possible impact areas within the PSP i.e. the measurement length and the potential landfill buffer overlap over the south eastern corner of the PSP alongside Hopkins Road.

5.5.1. Recommended changes to the PSP in response to Buffers

399. Overall, I find that the potential range of overlapping issues associated with land uses in proximity to the gas pipeline, the quarry and the landfill site raises a number of concerns about introducing any uses that could be considered sensitive in this location, such as bulky goods retailing.
400. The task is made more challenging without understanding the outcome of the MRL landfill extension planning permit application and the extent of any future buffers or separation distances associated to it. Logically, the MRL would be considered first given the level of state importance attributed to its future.
401. This may yet happen as a priority; however, I can only consider the PSP before me. I also find it unfortunate that the Local Buffer Support Program is still in its infancy and cannot inform this process, despite it being one of the reasons for commencing such a process in the first instance in response to the challenges or urban encroachment recognised by Getting Full Value.
402. I have also found there to be inconsistency between the way in which land use planning alongside state important landfill facilities has been addressed in the Wollert PSP and proposed Mt Atkinson and Tarneit PSP. In Wollert, the planning authority undertook a qualitative risk assessment prior to commencing preparation of the future urban structure and established 500m buffers from the boundary of the Wollert Hanson facility. In the Mt Atkinson and Tarneit Plains PSP, no such assessment was carried out and the landfill operator has agreed to requests from the planning authority to internalise buffers. I am unclear why two different approaches have been adopted, however, it provides no clarity or certainty of approach.
403. I further find that the compromises made to internalise the buffer will forego considerable landfill capacity. Ultimately, this fails to make the best use of this existing asset, irrespective of other considerations.
404. Sound planning for the future of the metropolitan area needs to be mindful of future population growth and the likely pressures on all existing service infrastructure and utilities. This will be particularly important if population growth continues to increase at current rates or even higher rates not anticipated by current infrastructure planning. It would be short-sighted, in my opinion, to

assume that future technologies and better practices will reduce the need for landfill capacity in the immediate future. The consequences of failing to plan adequately and providing appropriate facilities are set out very clearly in the State's waste and resource recovery planning policy, but include significant economic outcome and investment uncertainty. Clause 19.03-5 of the SPPF obliges planning to consider waste and resource recovery seriously as part of an integrated planning approach.

405. Given these factors I make the following recommendations in order to address the buffer and separation issues associated to the PSP:

1. Apply a default 500m interim landfill and quarry buffer from the western boundary of the subject site over the eastern edge of the PSP area on Plans 2 and Plan 12 of the PSP. The purpose of this would be to enable the extension of the MRL to be appropriately considered without undue risk of encroachment by sensitive uses. It would also safeguard the medium to long term capacity of the MRL facility as one of State Importance should it be established that the loss of landfill void capacity is not the best overall outcome for the metropolitan area.
2. Convert all land within the quarry and landfill buffer with the applied zone of Commercial 2 Zone to an Industrial Zone, ideally the Industrial 1 or 3 zone. The Industrial 3 Zone is a zone that is drafted as a 'transition zone' between industry types as well as an interface to more sensitive uses. I consider this to be a less sensitive land use zone compared to the Commercial 2 Zone and would also appropriately limit the range of uses within the gas pipeline measurement length.
3. In conjunction with recommendation 2 and adopting the same approach as the Wollert PSP, require that:

Any application to subdivide, use or develop land within the Boral/ MRL Landfill and Quarry Buffer and the Odour Buffer (to be) shown on a revised Plan 12 of the Mt Atkinson and Tarneit Plains PSP, must demonstrate compliance with the Best Practice Environmental Management: Siting Design, Operation and rehabilitation of Landfills (Environment Protection Authority, 2014 – Publication 788.2) and demonstrate that the long term operating capacity of the MRL and Boral Quarry facility would not be prejudiced and all to the satisfaction of the Responsible Authority, in consultation with the Environment Protection Authority. Where necessary, an environmental audit may be required under Section 53V of the EP Act if a building encroaches into the landfill buffer.

4. That Clause 6.1 of Schedule 9 to the UGZ is amended so that notice and review rights apply to any application in the quarry and landfill buffer in order to ensure that the operator of these facilities is made aware of any planning permit application and has the right to review any decision at VCAT.

6. CONCLUSIONS

406. Waste planning is not exciting but it is a necessity of the day-to-day function of our city.
407. There is a long and compelling history of land use planning in Victoria attempting to avoid incompatible uses from encroaching upon one another; however, I find the above extract of the 1929 Plan provides a very appropriate summary of the issues posed today by the Mt. Atkinson and Tarneit Plains PSP.
408. A key objective of nearly every planning strategy that has been adopted for metropolitan Melbourne since 1929 has been the need to ensure that existing assets are used efficiently and make best use of them in order to ensure that investment in key facilities and services is not wasted, stifled or discouraged.
409. Mineral resource extraction was the beneficiary of early growth corridor planning for an expanded metropolitan area that sought to protect natural resources by retaining them in rural areas. 'Green Wedge' planning then extended this protection to a range of important economic functions in the metropolitan fringe that required separation from other sensitive receptors. This included quarry and landfill sites such as the subject site but also Melbourne Airport.
410. Quarries and landfill facilities have few choices about their location and cannot be picked up and moved to the next best location. In the case of the subject site, it has been established as a major site for the extraction of basal since 1964 and the use for landfilling since 1999. Metropolitan waste planning identified the long term role of the MRL extending beyond a 40 year horizon.
411. It is urban expansion, notably the 2010 UGB shift, that has pushed urban development closer to these facilities in former green wedge areas in full knowledge of their existence and important role that they play.
412. In my opinion, the intent of the 2010 UGB was to protect the important buffers around landfill and quarry sites, as evidenced by the technical reports that underpinned that process. Likewise, the subsequent GCPs were prepared offering what I see as reasonable protection to the subject site, including the designation of industrial and employment uses on adjoining areas and signalling intent to limit the encroachment of sensitive uses.
413. Despite this intent, I find it no coincidence that waste planning policy has been required to recognise the shortfalls in the land use planning system in terms of protection around landfills. As a result, the waste planning framework under the EP Act has become more focused on integrated waste, land use and transport planning since the Metropolitan Waste and Resource Recovery Strategic Plan was released in 2009. As urban development within the expanded growth areas has increased so has the potential to adversely impact upon the continued operation of important landfill facilities.
414. I find the PSP, overall, to be inconsistent in terms of the employment focus that the GCP intended for this area. Notwithstanding this, it inevitably raises the potential for 'sensitive uses' to be located in close proximity to the quarry, landfill facility and within the measurement length of the high pressure gas pipeline running along Hopkins Road – the 'combined buffer area'. Prudent planning would suggest that there are many locations within the growth areas where bulky goods retail and small supermarkets might be better located, while it must be recognised that there are few locations for important landfill waste facilities.
415. I find no compelling reason why the PSP should contemplate the introduction of any sensitive uses into any part of the combined buffer at the current time and that a change to the intended applied zoning alongside parts the Hopkins Road frontage to ensure that the entire area is included in the Industrial 1 Zone would be entirely consistent with the approach already adopted in the Wollert PSP and will minimise the longer term potential to impact the viability and continued operation of the quarry and any expanded MRL facility.
416. Furthermore, appropriate requirements can be introduced into the UGZ and PSP to ensure that any sensitive uses that might occur within the Industrial 1 Zone of the combined buffer are appropriately considered and tested by the planning permit application process in order to ensure satisfactory land use outcomes and preserve the ability to operate the subject site.



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