Report

VICTORIAN PLANNING AUTHORITY

Expert Air Quality (Odour) Evidence Regarding Existing Landfill and Composting Operations in Relation to Amendment C207 to the Hume Planning Scheme

570-600 Sunbury Road, Bulla, Victoria

August 2017

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USE OF REPORT

The preparation of this expert witness statement has been undertaken for the purpose of providing expert evidence to the Planning Panel regarding the proposed Amendment C207 to the Hume Planning Scheme and it is not intended that this report should be used for any other purpose.

1. INTRODUCTION

Peter J Ramsay was engaged by Harwood Andrews acting on behalf of their client, Victorian Planning Authority (VPA), to provide independent expert advice relating to the odour impact from existing landfill and compost activities with respect to the proposed Amendment C207 (the Amendment). The land considered in this investigation is shown in Figure F1.

The Amendment is designed to incorporate the Sunbury South Precinct Structure Plan (PSP) into the Hume Planning Scheme. The changes brought about by the Amendment would facilitate the development of the Sunbury South Precinct for a range of residential, commercial, industrial and recreational uses.

The PSP identifies buffers required for landfill and organics (composting) facilities located at 570-600 Sunbury Road, Bulla, operated by Hi-Quality and Veolia respectively. The land on which both facilities are located is owned by Hi-Quality.

The landfill buffer described in Schedule 9 to the Urban Growth Zone (UGZ9) in the Amendment and shown on Plan 3 of the Sunbury South PSP is 500 metres. The composting facility buffer is described in UGZ9 as 1300 metres; however, in Plan 3 of the Sunbury South PSP, the size of the buffer is shown as 1300 metres graphically, but described in the legend as “tbc”, which is understood to represent “to be confirmed”.

The size of the landfill buffer and composting facility buffer are the subject of submissions by a number of parties and I have been asked by the VPA to provide my unbiased expert opinion on the appropriate extent of the buffers around the landfill and composing facilities within the area subject to the PSP.

This report details my opinion on the appropriate extent of the landfill and composting facility buffers having regard to odour.

2. SCOPE

I have been requested to provide my opinion, as an environmental expert and EPA appointed auditor for Industrial Facilities, in relation to the Amendment to consider as follows:

- The appropriate extent of the landfill and composting facility buffers having regard to odour;
- The planning controls proposed in UGZ9 to apply within the buffers, in particular the applied zones and Clauses 3.7, 3.8 and 3.9;
- The submissions referred to the Panel in relation to buffers; and
- To undertake a peer review of the odour assessment of the composting facility prepared by GHD on behalf of Hi-Quality Quarry Products Ltd.

In coming to my opinion, I have performed a scope of works which included:

- Review of GHD's investigation of buffer requirements for the operations of the Veolia organics facility, titled *Veolia Buffer Assessment: Odour monitoring and modelling results (August 2017);*
- Review of relevant guidelines and legislation as outlined in section 5 of this report;
- A description of the separation distances recommended by EPA Publication 1518 for the land held by Hi-Quality Quarry Products Pty Ltd;
- Review and consideration of planning controls proposed in Schedule 9 to the Urban Growth Zone (UGZ9), in particular, the applied zones and Clauses 3.7, 3.8 and 3.9; and
- Review and consideration of submissions referred to the Panel in relation to the buffers, in particular submissions 33, 45, 61, 69 and 82 to the Amendment.

3. EXPERT REVIEW DETAILS

3.1 Expert Witness Details

Expert Witness:	Mr Peter J Ramsay
Address:	Level 10, 222 Kings Way, South Melbourne, Victoria, 3205
Company:	Peter J Ramsay & Associates Pty Ltd

3.2 Expert's Qualifications and Experience

I am the Managing Director of Peter J Ramsay & Associates Pty Ltd, based at our head office in Melbourne, Victoria. I am a Chemical Engineer with a Masters of Environmental Science. Prior to establishing Peter J Ramsay and Associates I was Assistant Director of the Victorian Environment Protection Authority and was responsible for Victoria's Air Quality Management Program. I have been appointed as an Environmental Auditor under the Victorian Environment Protection Act 1970 for both Contaminated Land and Industrial Facilities since 1993 and 1991 respectively.

My curriculum vitae is provided in Appendix A.

3.3 Statement of Expertise

In view of my professional qualifications and expertise, I believe I am well qualified to prepare and present this evidence to the Panel.

3.4 Other Significant Contributors to the Report

I have been assisted in the preparation of my report by Mr Nathan Williams and Mr Chris Trim.

3.5 Existence of Private or Business Relationship with the Party Requesting this Report

There is no relationship between myself and the Victorian Planning Authority beyond the commercial arrangement to prepare this expert evidence report.

3.6 Instructions that Defined the Scope of the Report

Written instructions (**Appendix B**) were received from Harwood Andrews on behalf of the Victorian Planning Authority to provide an expert witness report in relation to my consideration of:

- the appropriate extent of landfill and composting facility buffers having regard to odour;

- the planning controls in UGZ9 to apply within the buffers, in particular and Clauses 3.7, 3.8, and 3.9;
- The submissions referred to the Panel in relation to the buffers; and
- A peer review of the odour assessment by GHD.

3.7 Facts, Matters and Assumptions Used

The following facts, matters and assumptions were used in the preparation of this report:

- Regulatory guidelines and other literature;
- The observations and discussions relating to the landfill and composting facilities at 570-600 Sunbury Road, Bulla during a site inspection on 9 August 2017; and
- My experience in air assessments, air quality and dispersion modelling, and odour-emitting facilities.

3.8 Documents and Other Materials Used to Prepare Report

The documentation and materials used to prepare this report included:

<u>Reports and Documents</u>

- Sunbury South PSP and Amendment C207;
- Hume Planning Scheme: exhibited Schedule 9 to the Urban Growth Zone, in particular, the applied zones and Clauses 3.7, 3.8 and 3.9;
- GHD 2017, *Veolia Buffer Assessment: Odour monitoring and modelling results; and*
- Cardno 2015, *Environmental Audit of Landfill Operations, 600 Sunbury Road, Bulla VIC 3428, September 2015.*

<u>Legislation and Guidelines</u>

- Environment Protection Authority 2013, *Guideline – Recommended Separation Distances for Industrial Residual Air Emissions, Publication 1518, March 2013*;
- Environment Protection Authority 2015*, Best Practice Environmental Management – Siting, Design, Operation and Rehabilitation of Landfills, Publication 788.3, August 2015;*
- Environment Protection Authority 2016, *Draft Guideline – Assessing planning proposals near landfills, Publication 1625, June 2016;*
- Environment Protection Authority 2017, *Guideline – Designing, constructing and operating composting facilities, Publication 1588.1, June 2017;*
- Environment Protection Authority 2017, *Guideline – Odour environmental risk assessment for Victorian broiler farms, Publication 1643, January 2017;*
- *Environment Protection Act 1970* (Vic);
- *Planning and Environment Act 1987*; and

- State Environment Protection Policy (Air Quality Management), including gazetted variations.

3.9 Tests or Experiments

No tests or experiments were performed to assist in the preparation of this report.

3.10 Summary of Opinions

My opinions are summarised in Section 11.

3.11 Provisional Opinions

The opinions expressed are not considered to be provisional.

3.12 Limitation

I consider myself qualified to prepare and present the report. I have not addressed questions falling outside my area of expertise, and do not consider it incomplete or inaccurate in any respect.

3.13 Declaration

I have made all the enquiries 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.

4. BACKGROUND

Amendment C207 to the Hume Planning Scheme proposes to incorporate the Sunbury South PSP (C207) into the Hume Planning Scheme.

I have been engaged by the VPA to provide my expert opinion on the appropriate extent of buffer distances between two facilities and sensitive land uses, located within the extent of the Sunbury South PSP based on emissions of odorous air. Specifically, both facilities are located at 570-600 Sunbury Road, Bulla referred to as the Hi-Quality Landfill (the landfill) and the Veolia organics recycling facility (the composting facility) operating to the south of the Hi-Quality Landfill.

The landfill is an operational landfill. It is licensed under EPA license 45279. It is licensed to accept prescribed industrial waste (Category C Prescribed Industrial Waste (PIW), asbestos and materials with polychlorinated biphenyls) and solid inert waste. Based on the material which the landfill is licensed to receive it is understood that the landfill is classified as a Type 2 landfill in accordance with the Landfill BPEM (EPA Publication 788.3). From the information in the most recently available section 53V audit report for the landfill, Environmental Audit of Landfill Operations, 600 Sunbury Road, Bulla VIC 3428, September 2015, it is understood that the landfill had a design airspace for at least 12,000,000 m^3 in 2010.

The composting facility holds a licence from the EPA allowing for green waste, solid domestic food waste and grease trap effluent to be composted onsite. The composting capacity of the premises is 85,000 tonnes per year of waste, including 3,000 tonnes of grease interceptor trap effluent.

I am aware that the EPA has received at least four pollution reports of odour related to the Veolia facility since 2011. This was mentioned in the report prepared by GHD for Hi-Quality Quarry Products Ltd titled Veolia Buffer Assessment, 31/34219, Revision 0, dated 3 August 2017 (the GHD report). I note that there are approximately 12 residences on rural holdings within approximately 1 to 2 kilometres of the Veolia composting facility.

During the consideration of planning scheme amendments; planning authorities, developers and industry inter alia should consider separation distances between commercial and industrial land uses and sensitive receptors. A separation distance, as defined in Environment Protection Authority (EPA) Publication 1518, is a buffer that is applied to an industry to ensure that incompatible land uses are located outside the buffer so as to minimise the impacts of odour and nuisance particulates.

Various terms such as buffer, separation distance, buffer distance, and buffer zone are used by planning authorities and regulators, the intended meaning of each of these terms is understood to be the same and these terms have been considered interchangeable throughout this document.

Appropriate consideration of separation distances during the planning process should result in the following outcomes:

- The protection of human health and wellbeing, local amenity and aesthetic enjoyment;
- The protection of existing industry from encroachment by sensitive uses; and
- The prevention of land adjacent to industry from being underutilised.

The Sunbury South PSP identifies a landfill buffer of 500 m, while the buffer distance for the composting facility is identified as TBC; although there is a graphical representation of the composting facility buffer shown to be 1,300 m.

The landfill and composting facility have the potential to cause adverse impacts on sensitive receptors due to Industrial Residual Air Emissions (IRAEs). IRAEs are intermittent or episodic and unintended noise, odour and/or air pollution. IRAEs may be caused by fugitive or upset conditions such as equipment failure, accidents and abnormal weather conditions.

Even state-of-the-art facilities operating in accordance with best practice guidance will experience upset conditions, which is the reason why separation distances are applied. Separation distances are not a permit to allow for polluting activities, but an acknowledgment of the fallibility of even the best designed and implemented control mechanisms.

In considering the appropriate buffer distances for the landfill and the composting facility the relevant legislation, policy and guidelines have been considered.

5. LEGISLATION, POLICY AND GUIDELINES

5.1 Planning and Environment Act 1987

Section 12(2)(b) of the *Planning and Environment Act 1987* requires a planning authority preparing a planning scheme amendment to take into account any significant effects which it considers the environment might have on any use or development envisaged in the amendment.

5.2 State Environment Protection Policy (Air Quality Management)

Odour is defined in the State Environment Protection Policy (Air Quality Management) (SEPP (AQM)) as an unclassified air quality indicator of local amenity and aesthetic enjoyment of the air environment. The SEPP (AQM) Schedule A specifies an odour criterion of 1 odour unit (OU) at or beyond the boundary of the premises. This is the odour detection threshold at which odours outside the boundary of the facility will be detected by half of the population. This criterion is a design criterion and therefore it only applies to new and expanded sources of emissions. It is therefore not directly applicable in evaluating the impact of existing commercial and industrial facilities. However, it proves a guide to the expected level of fugitive emissions expected from commercial and industrial facilities and the potential amenity impacts on sensitive land uses.

5.3 Recommended Separation Distances for Industrial Residual Air Emissions

EPA Publication 1518 “Recommended Separation Distances for Industrial Residual Air Emissions”, (referred to as “the Guidelines”) recommends separation distances to account for the potential impact of IRAEs on human health and wellbeing, local amenity and aesthetic enjoyment.

IRAEs are unintended emissions which are often intermittent or episodic, including both fugitive emissions and upset conditions. IRAEs include odour and particulate emissions such as dust. An adequate separation distance should allow IRAEs to dissipate without adverse impacts on sensitive land uses. It is important to note that even ‘state of the art’ facilities cannot be guaranteed to operate without IRAEs 100% of the time.

The recommended separation distances have been determined through reviewing a large set of empirical data of odour and dust emissions from a variety of industries. The aim of the Guidelines is to inform planning authorities, as well as responsible authorities, in the preparation and consideration of planning scheme amendments and planning permit applications. I therefore consider it pertinent to consider the Amendment in the context of the separation distances recommended in the Guidelines.

5.3.1 Effect of Separation Distance on Neighbouring Landowners

Applying a separation distance to a facility does not result in a change to the IRAEs released from the premises. All reasonable measures should still be taken by the commercial or industrial facility to prevent the emission of odours and dust beyond the site boundary. The separation distance is intended to account for intermittent or episodic IRAEs.

All industrial facilities will periodically experience upset conditions which are beyond the control of the facility. On such occasions IRAEs can transcend the boundaries of the premises. In order to prevent IRAEs having adverse impacts on sensitive receptors, a separation distance must be maintained around the source of the IRAEs. The separation distance helps to minimize the impact of IRAEs.

5.3.2 Sensitive Receptors

In accordance with the Guidelines a sensitive land use is *"any land use which requires a particular focus on protecting the beneficial uses of the air environment relating to human health and wellbeing, local amenity and aesthetic enjoyment".*

5.3.3 Variation to the EPA Recommended Separation Distances

A variation of the recommended separation distance can be sought if there are considered to be exceptional circumstances at the site that will justify a site specific variation. A site specific variation should not be granted until the relevant land use issues have been resolved to the satisfaction of the EPA.

Table 4 of the Guidelines provides a guide to the criteria that must be considered during the assessment of a site specific variation. Consideration of these criteria is a prerequisite for a site specific variation, but not a guarantee that a variation is justified.

The criteria that may justify a site-specific variation are:

- The industry has formally indicated it will transition out of the area over a specified timeframe;
- Engineering controls have provided a high standard of emission control technology;
- An Environmental Risk Assessment (ERA) justifies a change in the prescribed separation distance;
- The plant is considerably smaller or larger than comparable industries; and
- If the site exhibits exceptional meteorological or topographical characteristics which can affect dispersion.

Detailed site assessments (for example dispersion modelling of odour emissions) should only be undertaken if a variation from the recommended Guidelines values can be justified.

5.3.4 Agent of Change

For the purposes of the Guidelines, the "agent of change" is the proponent of the proposed land use that will give rise to the consideration of separation distances. It is the responsibility of the agent of change to provide evidence that a variation from the recommended separation distance is appropriate. If there is a proposed land use that requires a site specific variation from the recommended separation distances, then the onus is on the person seeking the variation to justify the change.

Furthermore, if a separation distance must be determined on a case-by-case-basis (as specified in Table 1 of the Guidelines) it is the agent of change who should determine the appropriate separation distance to the satisfaction of the EPA.

5.3.5 Interface Land Uses

Sensitive land uses should be prevented within interface land in accordance with the Guidelines. Interface land is located within separation distances between commercial and industrial land uses and sensitive land uses. Interface land uses should neither generate significant IRAEs, nor warrant protection from them.

Table 5 in the Guidelines provides examples of interface land uses, which are to be encouraged within separation distances inter alia carparks, cinema-based entertainment facilities, emergency services and research centres.

5.3.6 Cumulative Effects

The Guidelines state that where a cluster of industries of the same type exists, the cumulative impacts of IRAEs should be taken into consideration. The separation distances specified by the Guidelines do not take into account the effect of cumulative impacts resulting from the co-location of like industries.

Specific guidance from the EPA should be sought when all three of the following criteria are met:

- An existing or proposed industrial development occurs within the proximity of the same type of industrial development;
- The industry will have or has overlapping separation distances; and

- The combined capacity of the individual industries is in excess of the 'scale of operations' listed in the index of the Guidelines.

5.4 Assessing Planning Proposals Near Landfills (Draft Guidelines)

EPA draft publication 'Assessing Planning Proposals Near Landfills' (EPA Publication 1625) provides information and advice on assessing planning permit applications and planning scheme amendments that would lead to development near an operating or closed landfill. Specifically, it advises on the level of assessment a planning or responsible authority should require to inform its decision.

The draft guidelines refer to the Landfill BPEM for guidance on buffers for operating and closed landfills and note that the EPA requires landfills to comply with the BPEM, while further acknowledging that the EPA does not regulate sensitive land uses within landfill buffers as this is regulated through the implementation of appropriate planning policies and controls.

5.5 Best Practice Environmental Management – Siting, Design, Operation and Rehabilitation of Landfills (BPEM)

EPA publication 788.3 'Best Practice Environmental Management – Siting, Design, Operation and Rehabilitation of Landfills' (the landfill BPEM) provides existing and future operators of landfills, planning authorities and regulating bodies with information on potential impacts of landfills on the environment, statement of environmental performance objectives for each segment of the environment and information on how to avoid or minimise environmental impacts, including suggested measures to meet the objectives.

5.5.1 Best Practice Siting Considerations

The landfill BPEM identifies the appropriate siting of a landfill as the primary environmental control and notes that appropriate buffer distance must be maintained between the landfill and sensitive land uses (receptors) to protect those receptors from any impacts resulting from a failure. Failures might constitute discharge from the site of potentially explosive landfill gas, offensive odours, noise, litter and dust.

Buffer distances are set to reflect the potential impacts from landfilling activities and are generally set to manage:

- Odour; and
- Landfill gas impacts

Table 5.2 of the landfill BPEM identifies siting buffer distances required for landfill gas migration, safety and amenity impacts based on the type of landfill. The recommended buffer distance from buildings and structures for a landfill accepting category C PIW or municipal (putrescible) waste (type 2 landfill) is 500 m. Buffers are measured from the sensitive land use to the edge of the closest cell (including closed cells).

In considering any planning scheme amendment or planning permit applications, in accordance with the *Planning and Environment Act 1987*, the planning or responsible authority must have regard for the effects of the environment, including landfill gas, on the development. Responsible and planning authorities need to be provided with sufficient information by the proponent to satisfy them that the proposed development or rezoning will not be adversely impacted by its proximity to the landfill site.

The BPEM further states that where the proposed development or planning scheme amendment would have the effect of allowing development that encroaches into the recommended landfill buffer area or increases the extent of development within the already encroached buffer area, EPA recommends that the planning or responsible authority require an environmental audit be conducted under Section 53V of the *Environment Protection Act 1970*, which must assess the risk of harm to the proposed development posed by the potential offsite migration of landfill gas and amenity impacts resulting from the landfill.

5.6 Designing, Constructing and Operating Composting Facilities

EPA publication 'Designing, constructing and operating composting facilities' (EPA Publication 1588.1) provides information on thermophilic, aerobic composting operators' obligations under laws administered by the EPA and provides suggestions on how to comply. In particular, guidance is provided on locating and siting of composting facilities in section 4 of the guideline.

For a facility with green waste, vegetable organics and grease interceptor trap waste feedstock utilising open air receival, enclosed aerobic composting with secondary odour capture and treatment equipment and open-air maturation, a range of separation distances are recommended based on the size of the plant. For a plant which processes 75,000 tonnes per annum a separation distance of at least 1,200 m is recommended, while for a plant which processes 90,000 tonnes per annum a separation distance of at least 1,400 m is recommended. The Veolia composting facility is licensed to process 85,000 tonnes per annum. A separation distance of at least 1,300 metres is indicated by interpolation for a facility processing up to 85,000 tonnes per annum.

5.7 The State Planning Policy Framework (SPPF)

The SPPF articulates a number of relevant policies regarding encroachment however they are scattered throughout the document. Although there are no prescribed, or recommended distances in this document, the SPPF identifies the need for separation distances between commercial and industrial facilities with potential adverse amenity impacts and sensitive land uses.

The following are excerpts of current key provisions relevant to the Amendment:

- Clause 11 states that 'planning is to prevent environmental problems created by siting incompatible land uses close together'.
- Clause 13.04-2 states that planners should 'ensure, wherever possible, that there is suitable separation between land uses that reduce amenity and sensitive land uses.'
    - The following reference documents are considered to be relevant in achieving this objective:
        - State Environment Protection Policy (Air Quality Management) (discussed in Section 5.2); and
        - Recommended Buffer Distances for Residual Industrial Air Emissions (EPA, 2013) (discussed in Section 5.3).

5.7.2 Zones

Conflicting uses are principally controlled through the application of planning zones which encourage complementary uses and discourage or prohibit conflicting uses in a particular area. These are predominately used when transitioning from industrial to residential areas.

5.7.3 Overlays

A number of overlays may be applied to achieve land use separation. Relevant overlays may include the Environmental Significance Overlay (ESO) and the Design and Development Overlay (DDO).

6. SITE INSPECTION

I inspected the operations at the landfill facility on 9 August 2017, and was escorted by Mr Lance Ingrams, Divisional/Business Development and Planning Manager of Hi-Quality Group and Richard Strates of the Dominion Property Group. We drove by car around the site owned by Hi-Quality Group and this included observations externally of the Veolia Composting Facility.

6.1 Meteorology

The wind was a stiff North-west wind and the weather dry and overcast and felt like 7°C.

6.2 Quarrying Activities and Landfill

Extraction of basalt and sand occurs from the quarrying operations.

Quarrying is still actively occurring but progressively there's placement of waste in the Northern part of the site and Richard advised that the plan is to work South and landfill the Southern Area of the site in the future.

Richard advised me that there have been no complaints relating to odour or dust from the quarrying or landfill activities.

The Hi-Quality landfill is licensed to accept prescribed industrial waste (Category C contaminated soil), asbestos and solid and inert waste.

We first inspected the Northern end of the property where the active landfill cell is. I observed that a new engineered Cell has a basal liner and hence said there will be a piggy back liner on the Southern-western side of the Cell battered (piggy backed) against existing waste.

Lance said there were 5 Cells existing, although they were in the process of changing the nomenclature.

There was no odour detected from the active landfilling operations at the time of the inspection.

Dust emissions were observed from the crushing operations which near to the Western boundary of the quarrying operation.

The quarry is a basalt quarry with clay in the profile towards the surface. Groundwater was observed in the pit at the South-eastern end of the site and depth of groundwater appeared to be approximately 15 metres. Groundwater was observed to be pooling in the pit.

6.3 Veolia

We inspected the Veolia facility from the Boundary of the facility and I took a number of photographs. My observations were:

- The South-eastern end of the compositing building was open and a mechanical sorter be noted protruding from the building. There were wastes stored in the receival area ready for processing.
- Stockpiles were present in the maturation area and an odour could be detected beyond the immediate boundary of the property although this was not particularly strong.

6.4 Odour complaints

Lance advised that one of the neighbours located approximately 1.3 km from the Veolia facility had complained about offensive odours and has attributed these to the operations at Veolia. I was advised that there are approximately 12 residences within 1.3 km of the Veolia facility. The residences are within rural land holdings.

The composting facility is licensed for 85,000 tonnes per annum.

The waste is received into the open receival area are then passed through a mechanical sorter to remove plastics and other materials from the organic waste. The waste is the composited with the compositing building.

7. APPROPRIATE EXTENT OF BUFFERS

7.1 Appropriate Extent of Landfill Buffer

Appropriate buffers for specific industry activities as recommended by the EPA are described in Section 7 of EPA Publication 1518. Table 1 in section 7 includes 'Landfill'. Under 'Recommended separation distance' it refers to the Landfill BPEM.

The Landfill BPEM provides required buffer distances in Table 5.2 and these buffer distances consider the effects of landfill gas migration, safety and amenity impacts.

The Hi-Quality Landfill is a Type 2 Landfill; as it is licensed under EPA License 45279 for receipt of Category C Prescribed Industrial Waste (PIW). This classification is as described in Section 4 and Table 4.1 of the Landfill BPEM.

The relevant required buffer distance from buildings or structures to the landfilling works or closed landfill cells is 500 metres.

7.2 Appropriate Extent of Composting Buffer

Table 1 in section 7 of EPA Publication 1518 includes 'Green waste composting facility'. Under 'Recommended separation distance' it refers to *Separation distances for large composting facilities* (EPA Publication 1495) and *Draft guidelines for separation distances for composting facilities* (EPA Publication 1445). These guidelines have been superseded by EPA Publication 1588.1 *Designing, constructing and operating composting facilities*.

The information regarding appropriate separation distances is identical in both EPA Publication 1495 and EPA Publication 1588.1 and the operation of the composting facility is as described for Reference Facility 1 for both publications.

The recommended separation distance under both publications is for at least 1,200 metres for a facility sized for 75,000 tonnes per annum or at least 1,400 metres for a facility sized for 90,000 tonnes per annum.

The appropriate minimum buffer would be 1,300 metres for a plant sized 85,000 tonnes per annum, calculated by linear interpolation between the recommended minimum separation distances for plants sized at 75,000 and 90,000 tonnes per annum.

8. PLANNING CONTROLS PROPOSED IN UGZ9 AND BUFFERS

8.1 Clause 3.7 of UGZ9

The planning controls proposed in Clause 3.7 would provide controls for applications to subdivide or use land within the Landfill Buffer for sensitive uses.

8.1.1 Consideration of Informal outdoor and recreational sites

The land uses described as sensitive use include informal outdoor and recreation sites.

Informal outdoor and recreational sites should not be interpreted to include public park recreation or public park conservation areas as sensitive uses. Recreational and conservational public open space use is a typical and appropriate interface land use and is explicitly listed as such in Section 10.2 of EPA Publication 1518.

8.1.2 Consideration of the OERA

The planning controls in Clause 3.7 include the requirement for an Odour Environmental Risk Assessment (OERA) prepared by a Suitably Qualified Person (SQP) to the satisfaction of the responsible authority, in consultation with the EPA. They also require the OERA to be prepared in accordance with the SEPP AQM and acknowledge the existing landfill's operations and its potential adverse amenity impacts.

The requirements for assessing the risk of odour impacts within a landfill buffer are discussed in the draft guideline published by EPA, *Assessing planning proposals near landfills* (EPA Publication 1625). However, the methodology for an OERA is not defined in EPA Publication 1625 nor are specific requirements defined in the SEPP AQM, except for the protocols for assessment, which do not provide guidance for assessing the level of risk above the acceptable criterion.

The method for determining the suitability of a SQP for the preparation of an OERA is not specifically defined in either EPA Publication 1625 or Clause 3.8 of the SEPP AQM; and therefore the definition of a SQP remains subjective; except where it is performed within an Environmental Audit where the SQP is Environmental Auditor appointed under the *Environment Protection Act 1970*.

Adverse amenity impacts due to odour when they occur are diffuse and pervasive which makes them extremely difficult to mitigate through design or engineering controls at a sensitive receptor; thus if adverse amenity impact is encountered, remedial works are not practicable.

In view of this, it is prudent to require all sensitive land use proposals within the Landfill Buffer to be accompanied by a 53V (risk of harm) audit under the *Environment Protection Act 1970* which considers odour amenity risk.

8.2 Clause 3.8 of UGZ9

The planning controls proposed in Clause 3.8 of UGZ9 would provide controls for applications to subdivide land, use land, construct a building or carry out works within the Landfill Buffer.

8.2.1 Typographical Error in UGZ9 Clause 3.8

I expect that the first line under heading 3.8 should read, "…carry out works…" rather than "…carry our works…".

8.2.2 Appropriateness of a Landfill Gas Risk Assessment

A tool for determining the appropriate level of assessment of the risk due to landfill gas for proposed planning permit applications or planning scheme amendments is provided in EPA Publication 1625; specifically whether a Landfill Gas Risk Assessment (LFGRA) or 53V (risk of harm) audit under the *Environment Protection Act 1970* is recommended for new developments. For proposed alterations to existing buildings there is the alternative to bypass the risk assessment step if appropriate landfill gas mitigation measures are installed.

The tool which is described in Section 6.3 of EPA Publication 1625 requires input of a proposal score (based on the type of development that the proposal would allow) and landfill score (based on the characteristics of the landfill) to calculate the level of risk.

I assume that the minimum proposal score for any new building would be two, ie. buildings and structures that exclude below ground structures, such as basements or lift shafts.

The landfill score for size would be five, ie. more than 5,000,000 m3 in size; three for type, ie. solid inert waste; and five for age, ie. an operating landfill.

The overall score is proposal score x sum of landfill score (size + type + age), ie 2x(5+3+5)=26.

If the overall score is 11 to 25, EPA recommends the preparation of a LFGRA by an appropriately qualified SQP (as defined in Appendix 5 of EPA Publication 1625); for a score 26 or greater EPA recommends that a 53V (risk of harm) audit under the *Environment Protection Act 1970* is performed by an environmental auditor.

For alterations to an existing building the score would be 13, which would require a LFGRA.

As such, the EPA will likely recommend that a 53V (risk of harm) audit under the *Environment Protection Act 1970* be undertaken for any new building work within the landfill buffer of 500 metres.

The text of Clause 3.8 should reflect the likely recommendation that a 53V (risk of harm) audit under the *Environment Protection Act 1970* will likely be required for any new building works, and a LFGRA for alterations to an existing building.

8.3 Clause 3.9 of UGZ9

The planning controls proposed in Clause 3.9 would provide controls for applications to subdivide or use land within the Composting Buffer for sensitive uses.

8.3.1 Consideration of Informal outdoor and recreational sites

The land uses described as sensitive use include informal outdoor and recreation sites.

Informal outdoor and recreational sites should not be interpreted to include public park recreation or public park conservation areas as sensitive use. Recreational and conservational public open space use is a typical and appropriate 'interface land use' and is explicitly listed as such in Section 10.2 of EPA Publication 1518.

8.3.2 Consideration of the OERA

There is no guidance from EPA regarding a suitable protocol for determining an acceptable level of risk from a composting facility through an OERA.

The odour impact buffer assessment undertaken for the site indicates that the maximum (99.9th percentile) odour impact from the composting facility is likely to impact beyond the 1300 metre Compost Buffer.

As it is extremely difficult to retrospectively apply controls to mitigate odour impact at a sensitive receptor and it appears likely that odour impacts will be present within the Composting Buffer; I recommend that development for sensitive use within the Composting Buffer is prohibited or only allowed if submitted with a 53V (risk of harm) audit under the *Environment Protection Act 1970,* which is able to demonstrate that risk of adverse amenity impact due to odour from the composting facility can be controlled.

9. SUBMISSIONS REFERRED TO PANEL REGARDING BUFFERS

9.1 Consideration of Submissions Regarding Buffers

9.1.1 Submission 33 to Amendment C207

The submitter, Sustainability Victoria, recommends strengthening controls within the Landfill and Composting Buffers to prevent encroachment by sensitive land use.

It is not clear to me that both a 53V Environmental Audit and an OERA are required for development for sensitive land use within the Landfill Buffer. For example Clause 3.7 of UGZ9 requires the preparation of an OERA, whereas Clause 3.8 requires either a LFGRA or a 53V Environmental Audit.

I agree that the planning controls to prevent encroachment should be strengthened, however some flexibility should be provided in case future conditions change; strengthening the requirement for development, subdivision, and change of land use within the buffers to require a 53V Environmental Audit would do this.

I recommend that Clauses 3.7 and 3.9 of UGZ9 should require submission of a 53V environmental audit, rather than allow the option of submission with an OERA.

I recommend that Clauses 3.8 of UGZ9 should require submission of a 53V environmental audit, rather than allow the option of submission with an LFGRA for new building works.

9.1.2 Submission 45 to Amendment C207

The submitter, RCL Group, requests a reduction of the 1,300 metre Composting Buffer proposed in the Sunbury South PSP on the basis that it is excessive. The submitter puts forward an odour contour diagram prepared by GHD which shows an area of odour within approximately 600 metres from the composting facility.

I have not reviewed the odour dispersion modelling from which the contours were generated but more recent odour impact modelling put forward in the GHD in the Veolia Buffer Assessment suggests a greater impact than demonstrated by the modelling referred to in the RCL Group submission, using the most recent odour dispersion assessment.

I view of this, I disagree with the submitter and I do not believe that a 600 metre Composting Buffer has been demonstrated to be suitable.

9.1.3 Submission 61 to Amendment C207

The submitter, Hi-Quality, recommends a reduction of the Landfill Buffer from 500 metres to 250 metres and proposes a Composting Buffer of 600 metres.

The submitter states that active quarry operations will be within 250 metres of the PSP for a limited time, however this does not mention the separation between the Landfilling activity and the PSP, nor is there any other justification for a reduction in size of the Landfill Buffer.

In view of this, I do not consider that the submitter provides a reasonable justification for a reduction in size of the Landfill Buffer from 500 metres to 250 metres.

The submitter states that a 600 metre Composting Buffer should be appropriate but provides no evidence or justification for their belief; as such I disagree with the submitter.

9.1.4 Submission 69 to Amendment C207

The submitter, Metropolitan Waste and Resource Recovery Group, recommends increasing the clarity and strength of planning controls to limit the potential for encroachment by sensitive land use on the Landfill and Composting Buffers.

I agree that the provision of an ESO to the buffer areas is one option to make it clear to the responsible authorities to determine appropriate land uses in the buffer areas.

9.1.5 Submission 82 to Amendment C207

The submitter, EPA, recommends that sensitive land uses be excluded from the quarry and Landfill Buffers, and that the delineation of the Composting Buffer be justified with both desktop modelling and odour surveillance prior to any rezoning for sensitive land use.

I agree with the submitter that any proposed sensitive land use within the Landfill Buffer should require a 53V (risk of harm) Environmental Audit to consider amenity impacts, and that Clause 3.7 of UGZ9 should be revised to reflect this requirement.

548 I agree with the submitter that any proposed new building work within the Landfill Buffer should
549 require a 53V (risk of harm) Environmental Audit to consider landfill gas impacts, and that Clause
550 3.8 of UGZ9 should be revised to reflect this requirement.

551 I agree with the submitter that it would be preferable to obtain an odour assessment in order to
552 determine an appropriate buffer distance from the composting activity, however in the absence
553 of an appropriate site specific assessment, 1,300 metres is the appropriate default value in
554 accordance with current EPA guidelines.

10. PEER REVIEW OF VEOLIA BUFFER ASSESSMENT

This section refers to the report prepared by GHD for Hi-Quality Quarry Products Ltd titled Veolia Buffer Assessment, 31/34219, Revision 0, dated 3 August 2017 (the GHD report).

10.1 Justification for Variation to Standard Buffer

As is stated in Section 9.2 of EPA Publication 1518, “Any proposal to vary from a recommended separation distance should detail why the consequence of IRAEs are such that variation from the recommended separation distance is justified.”.

The GHD report is taken to be a proposal to vary from the recommended separation distance according to EPA Publication 1518, namely, the separation distance recommended for Reference Facility 1 in EPA Publication 1588; which is 1,300 metres.

The GHD report includes an OERA in Chapter 6, although the GHD report does not state so explicitly, I have assumed that the author intends for this Chapter to provide justification for the site specific variation to the recommended separation distance of 1,300 metres.

10.2 Odour Sampling – Source OERs

The odour emission rates measured from the received waste stockpiles show a large range of flux rates from 40 to 624 OU/m2/s from a total of five reported measurements, 3 from September 2016 and 2 from May 2017.

The OERs measured are compared to a value of 4 OU/m2/s which was used in the odour impact assessment for the works approval for the facility. The basis for the estimated flux rate of 4 OU/m2/s is not discussed in the GHD report.

No discussion is provided in the GHD report with regard to the data quality, quality assurance, or quality control of the OER measurements.

It is not clear whether the measured OERs are indicative of actual OERs from the waste stockpile. It is possible that the process used to form a small stockpile by disturbing the sample, increased the rate of odour emission, and that the waiting period of 30 minutes was not sufficient to demonstrate the rate of odour emission from a resting stockpile.

Regardless of the reason, the wide range of the measured OERs and large increase in OER compared to the value used in the works approval impact assessment indicate that the measured data are not reliable and are not suitable for use in the interpretation of environmental impact.

As such the odour dispersion modelling discussed in the GHD report is invalid and should not be used to inform any decisions regarding the actual odour emission rate at the composting facility nor the appropriate extent of the composting buffer.

10.3 Air Dispersion Model

10.3.1 Back Calculation from Downwind Odour Transects

The calculation in Section 5.1 of the GHD report appears to use the data collected from a single measurement to verify itself; the measured value was used to produce a predicted contour, which appears to verify the measured value.

This is circular reasoning and is invalid; and it explains why the measured and predicted mean transect odour concentrations are identical; rather, the predicted odour concentrations used in the back calculation should have been made from the odour emission rates measured from the fresh waste stockpile.

No calculations are provided from which I can verify that the back calculation has been correctly performed and the method does not reference any published standard.

I am not aware of an Australian Standard for back calculation of odour emission rate from field observations, however the German Standard VDI 3940 Part 2, February 2006, provides such a methodology in Section 5.4.1 Estimating odour emissions (reverse calculation).

EPA recommended that the GHD report consider the German VDI odour survey Standard to GHD in its letter of 19 June 2017, however the method described in the GHD report does not reference any published methodology.

As such, the back calculated odour emission rates in the GHD report should not be used to inform any decisions regarding the actual odour emission rate at the composting facility nor the appropriate extent of the composting buffer.

10.3.2 Assumptions for Scenario 2

The assumption of zero discharge of fugitive emission of odorous air from an enclosed green waste receival area is unrealistic; fugitive emissions from an enclosed area could be expected to be 1% to 5% of the emissions from the open area and therefore an assumption of zero fugitive emissions is unrealistic. Also upset conditions need to be considered such as when the biofilter is offline.

The assumptions for Scenario 2 do not explicitly state that additional emission of odorous air from the biofilter were included. As shown by the elevated emissions from the existing biofilter provided in Section 4.2 of the GHD report, the assumption of zero emissions from a biofilter is unrealistic.

As such, the modelled Scenario 2 should not be used to inform any decision regarding the appropriate extent of the composting buffer.

What can be inferred however, is that if the receival area is fully enclosed and fugitive emissions are minimised then odour impacts on sensitive receptors would be reduced.

10.3.3 Modelling of Upset Conditions

The measured emission rates from the biofilter have included upset conditions on both sampling occasions; during both 2016 and 2017 sampling events when only one half of the biofilter was in operation to treat the emissions.

This is an upset condition and the odour emission testing should have been performed with both sides of the biofilter in operation.

As a result the emissions from the biofilter which have been modelled are likely to exceed those from typical operation.

As such, the modelled Scenario 2 should not be used to inform any decision regarding the appropriate extent of the composting buffer.

10.4 Odour Environmental Risk Assessment

10.4.1 Use of Broiler Farm Guidelines

The GHD report references EPA Publication 1643 for assessing impact due to broiler farms, as a guideline for the preparation of an OERA , and uses the same methodology for the OERA in relation to the composting facility and the Compost Buffer.

No justification is provided regarding why the guideline is applicable in this case; except that it is understood (by the author with no reference) that EPA expect to apply it as a template for other industries with similar emissions.

Emissions from a composting facility are subject to a greater frequency of upset conditions due to weather and have a different hedonic tone to emissions from a broiler farm.

It is noted that the design criterion of 1 OU is used to design facilities to avoid amenity impacts occurring beyond the recommended separation distance.

10.4.1.1 Odour Impact Criterion in EPA Publication 1643

EPA Publication 1643 adopts a criterion of 5 OU, as a threshold between low and medium risk event. This is consistent with the criterion as described in note 9 to Schedule A of the SEPP AQM for intensive animal husbandry industries in a rural setting.

The emissions from a broiler farm are not similar to emissions from a composting facility, and the typical rural setting of broiler farms is not as sensitive to odour impacts as an urban setting; hence EPA Publication 1643 is not applicable and could not reasonably be expected to apply to this or a similar situation in the future.

The design criterion for adverse amenity impact based on odour is a 99.9th percentile maximum odour concentration of 1 OU with a 3-minute averaging time; the appropriate odour criterion for assessing a composting facility would be 1 OU, in accordance with Schedule A of the SEPP AQM.

The criterion of 5 OU used to describe low risk from odour impact in EPA Publication 1643 is not intended and should not be used to determine risk to amenity from emissions sources other than broiler farms.

As such, the OERA described in the GHD report is not applicable to the composting emissions and the results of the OERA should not be used to inform any decision regarding the appropriate extent of the composting buffer.

10.4.1.2 Control Over Upset Conditions in Relation to EPA Publication 1643

EPA Publication 1643 is intended for application to odour impacts from broiler farms.

In accordance with EPA Publication 1518, buffer distances are intended to protect sensitive receptors against odour impacts from upset conditions.

Broiler farms operate in enclosed, temperature controlled, ventilated barns; farmers have control over when deliveries are made, when waste is collected, and the operation of the farm is not greatly affected by external weather conditions except in extreme situations.

A composting facility is typically contractually obliged to accept material as delivered by customers, compost produced will be collected only as required by customers; thus the operator of a composting facility (unlike a broiler farmer) has little control over managing inputs and outputs.

The composting facility is affected by weather. Wetter conditions may increase the likelihood of anaerobic conditions in the received waste and may impact the operation of a biofilter.

Therefore a composting facility is subject to a greater frequency of upset conditions in which the actual odour emission rate is likely to be greater than modelled conditions.

As such, the OERA described in the GHD report is not applicable to the assessment of risk from upset conditions at the composting facility and the results of the OERA should not be used to inform any decision regarding the appropriate extent of the composting buffer.

10.5 Expert Opinion on the Conclusions in the GHD Report

The GHD report does not provide a basis from which to determine an appropriate separation distance from the Veolia composting facility to sensitive receptors.

It is not clear that the measured odour emission rates are demonstrative of actual odour emissions from the receival area that would be present from typical operation.

682 The back calculation of odour emission rates was not conducted in accordance with a published
683 methodology and the methodology used has not been explained in sufficient detail to assess its
684 validity.

685 The modelled Scenario 2 as described in the GHD report disregards fugitive emissions from an
686 enclosed building and does not appear to include increased emissions from a new biofilter.

687 The modelled Scenario 1 as described in the GHD report includes emissions from an upset
688 condition at the biofilter which should not be encountered in typical operation.

689 The methodology employed to conduct an OERA is not considered appropriate for assessing
690 odour impacts from a composting facility, on the basis of both odour criterion and consideration
691 of upset conditions; it has not considered the requirements of the SEPP AQM.

692 The conclusion of the GHD report is that a 600 metre buffer zone is appropriate. For the reasons
693 stated above it is my opinion that a reduction of the default buffer zone from 1,300 metres is not
694 justified by the information in the GHD report.

695 The EPA recommended separation distance of 1,300 metres should be applied.

696 In the future, should the receival area of the Veolia facility be totally enclosed there would be a
697 basis to consider a reduction in the separation distance based on the criteria for a variation to
698 recommended separation distances in EPA Publication 1518.

11. CONCLUSIONS

Based on my consideration of the Amendment, the relevant legislation and Guidelines, my review of Clauses 3.8, 3.8 and 3.9 of UGZ9, submissions concerning separation distances, and my peer review of the GHD report; I consider that the potential exists for encroachment of sensitive land use on the existing operations of the landfill and composting facility.

In order to control the potential for encroachment, appropriate buffers should be applied to mitigate potential for conflict between the operators of the landfill and composting facilities and sensitive land uses.

My conclusions are that:

- The recommended landfill buffer with regard to amenity should be retained at 500 metres in accordance with published EPA guidance;
- The recommended composting buffer with regard to amenity should be retained at 1,300 metres in accordance with published EPA guidance;
- The GHD report does not provide appropriate justification for a change from the recommended composting buffer of 1,300 metres; and
- Should the waste receival area at the Veolia composting facility be enclosed then there would be a basis to consider a reduction in the separation distance based on the criteria for a variation to recommended separation distances in EPA Publication 1518.

In order to provide stronger controls to mitigate potential encroachment within the buffers, I recommend:

- Revising the text of Clause 3.7 of UGZ9 to require a 53V environmental audit to consider risk to amenity rather than allow for an OERA for proposed sensitive use;
- Revising the text of Clause 3.8 of UGZ9 to require a 53V environmental audit to consider risk from landfill gas rather than allow for an LFGRA for new building works;
- Revising the text of Clause 3.8 of UGZ9 to require a LFGRA for alterations to an existing building; and
- Revising the text of Clause 3.9 of UGZ9 to require a 53V environmental audit to consider risk to amenity rather than allow for an OERA for proposed sensitive use.

Figures

Figure F1: Site Plan Showing Landfill and Composting Facility

LEGEND

0 500 m

Approximate Scale

Licensed Premises 45279

Activity Boundary of Potential Odour Source

N

570 – 600 Sunbury Road, Bulla, Victoria

Source: *Aerial Photograph Dated 08 February 2017 Courtesy of NearMap Pty Ltd*

PETER J RAMSAY & ASSOCIATES

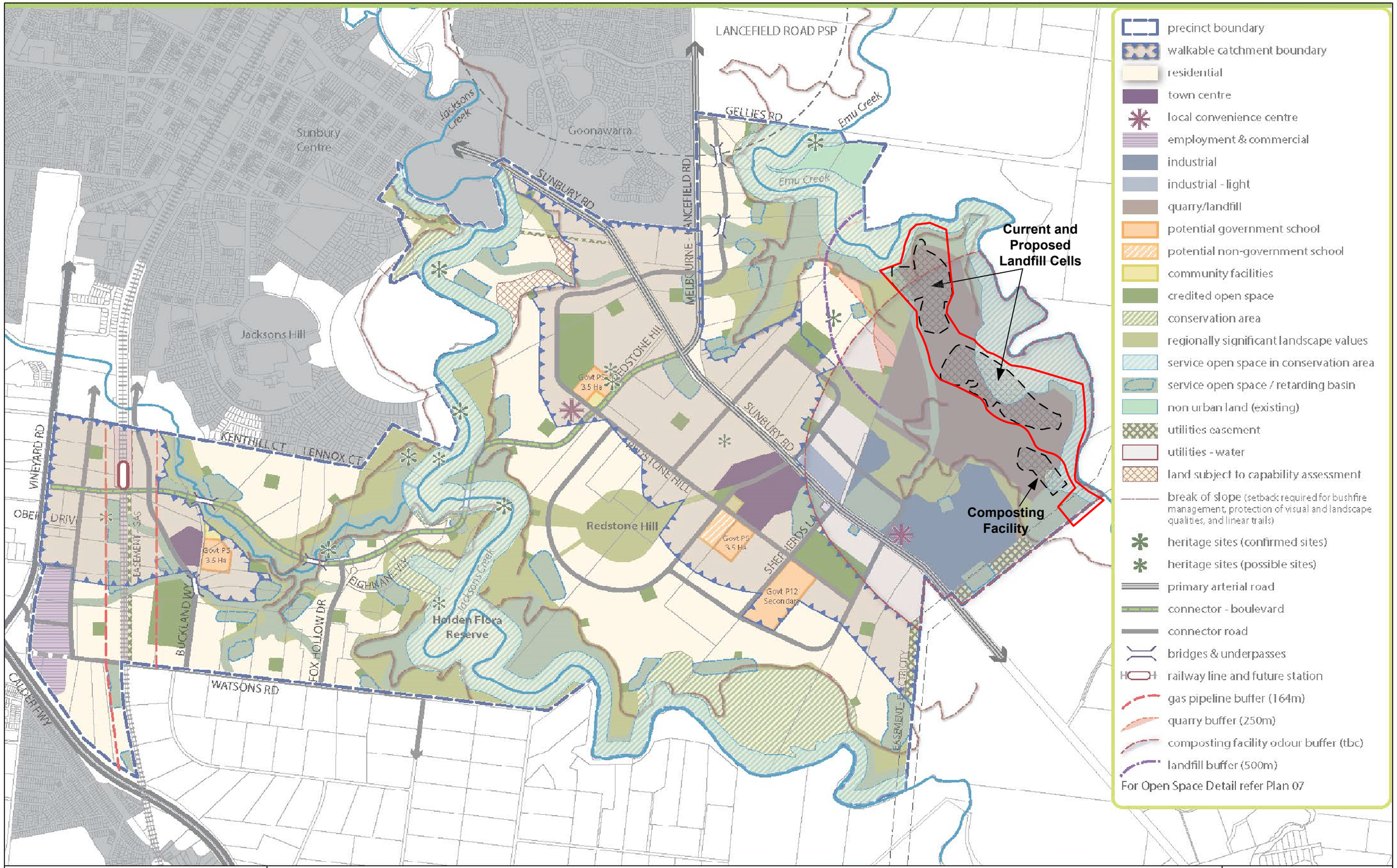

Figure F2: South Sunbury PSP Showing Approximate Landfill and Composting Facility Locations

LEGEND

0 1,200 m

Approximate Scale

South Sunbury, Victoria

Licensed Premises 45279

Activity Boundary of Potential Odour Source

Source: *Adapted from Sunbury South Precinct Structure Plan - November 2016*

N

PETER J RAMSAY & ASSOCIATES

Appendix A

Peter J Ramsay
Curriculum Vitae

PETER J RAMSAY & ASSOCIATES

Peter J Ramsay
Managing Director

Fields of Competence

- Lead environmental auditing of industrial facilities and manufacturing plants
- Environmental auditing of industrial facilities, including landfills, and contaminated sites
- Auditing of environmental management systems
- Expert witness and legal representation
- Contaminated site assessment and remediation
- Environmental improvement plans and pollution reduction programs
- Regulatory permitting
- Environmental risk assessment
- Air quality assessment, regulation, monitoring and modelling
- Cleaner production and waste minimization
- Environmental impact assessment
- EHS management
- Carbon management and corporate environmental advice

Experience Summary

Peter has been Managing Director and Principal Consultant of Peter J Ramsay & Associates Pty Ltd since February 1988. He has over 30 years' experience in pollution control, cleaner production, due diligence audits, environmental auditing, environmental management systems and environmental assessment. Prior to establishing Peter J Ramsay & Associates, Peter was Assistant Director of the Environment Protection Authority, Victoria.

Peter is a Chartered Professional Engineer and a Fellow of the Institution of Engineers Australia. He is appointed as an Environmental Auditor in Victoria for both Industrial Facilities and Contaminated Land, and is accredited for contaminated land auditing in New South Wales, South Australia and Western Australia. In addition Peter is a registered professional engineer in Queensland.

Education

Diploma of Chemical Engineering, RMIT, 1970.

Graduate Diploma of Management, RMIT, 1973.

Master of Environmental Science, Monash University, 1978.

Language Proficiency

(None, Fair, Moderate, Excellent, Native)

- English: Speak/Read/Write - Native/Native/Native

Professional Affiliations and Registrations

- Appointed Environmental Auditor under the Victorian *Environment Protection Act 1970*, for contaminated land and industrial facilities.
- Accredited Contaminated Sites Auditor under the Western Australian *Contaminated Sites Act 2003.*
- Accredited Site Auditor under the New South Wales *Contaminated Land Management Act 1997.*
- Accredited Site Contamination Auditor under the South Australian *Environment Protection Act 1993.*
- Registered Professional Engineer in Queensland
- Fellow of the Institution of Engineers Australia (FIEAust).
- Fellow of The Australian Institute of Company Directors.
- Past Chairman of the Environmental Branch, Victorian Division, Engineers Australia, 1987/88.
- Member of Clean Air Society of Australia and New Zealand.
- Member of Australian Water Association.
- Member of Australian Land and Groundwater Association.
- Member of Waste Management Association of Australia.
- Member of Air and Waste Management Association (USA).
- Member of Australian Environment Business Network.
- Member of Australian Sustainable Business Group.

Key Projects

Statutory environmental audits of land under Australian legislation of contaminated sites, landfills and a range of industrial facilities.

Statutory environmental audits of risk to the environment from landfill operations throughout Victoria.

Statutory environmental audits of risk to the environment from the construction of landfill liners throughout Victoria.

PETER J RAMSAY & ASSOCIATES

Peter J Ramsay
Managing Director

Statutory environmental audits of risk of harm to groundwaters at landfills throughout Victoria.

Auditor verification of monitoring programs

Auditor verification of cell design at landfills throughout Vicotoria.

Auditor verification of hydrogeological assessments for landfills in Victoria.

Auditor verification of rehabilitation plans for closed landfills in Victoria.

Lead auditor for environmental audits of Alcoa aluminium smelters, BHP steel mills and manufacturing facilities.

Management of due diligence audits for mergers and acquisitions for major real estate transactions.

Management of Phase I and II environmental assessments of soil and groundwater at large scale industrial facilities.

Management of remedial projects throughout Australia.

Cleaner production and waste minimisation strategies for industries.

Air quality management and assessment for industry.

Odour control and impact assessment for industrial facilities ranging from poultry farms to manufacturing facilities.

Waste to energy projects and carbon management.

Regulatory permitting for new and existing industrial facilities.

Audits of wastewater treatment facilities and water reuse strategies.

Environmental impact assessment for new facilities.

Environmental Health and Safety (EHS) policies and procedures. Preparing and documenting sound EHS management systems.

Hazard and Operability Studies (HAZOPS) to determine regulatory compliance.

Environmental risk assessment to determine regulatory compliance.

Publications

- Ramsay, P.J. *Sustainable Challenges Facing Business*, Paper presented at the Environment Essentials Conference, Australian Environment Business Network (AEBN), Parkville, 16 September 2004.
- Ramsay, P.J. Property Council of Australia *Guide to Due Diligence*, author of Environmental section of the 2003 (current) edition, Brisbane 2003.
- Ramsay, P.J. Property Council of Australia Publication *Guide to Due Diligence*, Author of Environmental section, Brisbane, 1998.
- Ramsay, P.J. and Van Schoten, M.W. *The Critical Need for Quality Assurance in Contaminated Site Assessment*, Paper presented at the 3rd National Hazardous Solid Waste Convention, Darling Harbour, Sydney, 26-30 May 1996.
- Ramsay, P.J. and Thiele, G.A., *Assessment of Odour Buffer Zones for Wastewater Treatment Plants*, Clean Air, Vol. 29, No. 2, pp. 48-52, 1995.
- Ramsay, P.J. and Wareham, A.E. *The Role of Buffer Zones in Environmental Management*, Symposium on Siting, Engineering and Management of Hazardous Industries, Institution of Engineers Australia, Melbourne, Australia, 13 and 14 April 1983.
- Ramsay, P.J. *Report on Study: Fluoride Levels in Vegetation and Ambient Air in the Portland Area*, Environment Protection Authority, Publication 148, Melbourne, Australia, 1982.
- Ramsay, P.J. *Stationary Source Control in Victoria: The benefits of Licensing and Monitoring*, 50th Annual Conference of Australian Institute of Health Surveyors, Victoria Division, Moonee Valley, Melbourne, Australia, 22 May 1981.
- Ramsay, P.J. *Air Pollution Control of Aluminium Smelters in North America. A Review of Emission Limits and Control Strategies for Aluminium Smelters in North America with implications for Victoria*, Environment Protection Authority, Publication 114, Melbourne, Australia, 1980.
- Hulme, J. and Ramsay, P. *Industrial Pollution and Community Attitudes*, Monash University. Victoria, Australia, 1978.

Appendix B

Harwood Andrews' Letter of Instruction

HARWOOD ANDREWS

Our ref: 4TED 21702183
Contact: Tessa D'Abbs
Direct Line: 03 9611 0117
Direct Email: tdabbs@ha.legal
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10 July 2017

Peter Ramsay
Peter J Ramsay & Associates

Email: peter.ramsay@pjra.com.au

Subject to legal professional privilege

Certified B Corporation

Dear Peter,

Amendment C207 to the Hume Planning Scheme – Sunbury South PSP
Amendment C208 to the Hume Planning Scheme – Lancefield Road PSP

We act for the Victorian Planning Authority (**VPA**) in relation to the above two amendments, which propose to incorporate the Sunbury South PSP and Lancefield Road PSP into the Hume Planning Scheme.

The amendments are listed to be heard at a Panel hearing commencing on 21 August 2017, with the VPA appearing for five days in the first week.

We have been instructed to brief you to:

1. review this letter and the enclosed brief of documents;

2. advise if you are in a position to provide expert air quality (odour) evidence on behalf of the VPA at the hearing:
    a. in support of the amendments as exhibited; or
    b. subject to any issues you consider should be addressed by way of post-exhibition changes; and

3. provide a fee proposal to prepare an expert witness statement and present evidence at the hearing.

We request that you maintain availability during the week of 21 August 2017 pending your consideration of the amendments and consideration of your fee proposal by the VPA.

The Panel has not yet issued directions regarding the circulation of expert evidence, but we anticipate this may be up to 7 business days prior to the hearing.

In the event you are instructed to prepare an expert witness statement, we have enclosed a copy of the Planning Panels Victoria Guide to Expert Evidence in your brief of documents.

Background

The VPA is the planning authority in respect of the amendments. The issues relating to odour arise in relation to Amendment C207 and the Sunbury South PSP.

The Sunbury South PSP identifies buffers required for the landfill and organics facilities located at 570-600 Sunbury Road, Bulla, operated by Hi-Quality and Veolia respectively. The land on which both facilities are located is owned by Hi-Quality.

Copies of the EPA licences for these facilities are included in your brief.

Landfill buffer

The Sunbury South PSP identifies a landfill buffer of 500 metres.

Schedule 9 to the Urban Growth Zone (**UGZ9**), exhibited as part of the Amendment, includes:

- Clause 2.2, which sets out the zones to apply in the PSP area, including within the landfill buffer; and
- Clauses 3.7 and 3.8, which relate to planning permit applications within the landfill buffer.

Composting buffer

The Sunbury South PSP identifies a composting facility odour buffer, with its extent 'to be determined', but shown at 1.3 kilometres from the facility.

The exhibited UGZ9 includes

- Clause 2.2, which sets out the zones to apply in the PSP area, including within the composting buffer; and
- Clause 3.9, which relates to planning permit applications within the composting buffer.

Submissions

The VPA received 94 submissions in response to exhibition of the Sunbury South PSP and 93 submissions in response to exhibition of the Lancefield Road PSP. Of these, 52 submitters have requested to be heard at the Panel hearing. The hearing is anticipated to be scheduled for approximately 8 weeks.

The submissions of most relevance to your evidence are:

- No. 33 – Sustainability Victoria
- No. 45 – RCL Group, which owns 605 Sunbury Road, Sunbury
- No. 61 – Hi-Quality
- No. 69 – Metropolitan Waste and Resource Recovery Group
- No. 82 – EPA Victoria

Copies of all submissions referred to the Panel are included in your brief.

On 6 July 2017, the VPA received a late submission from Veolia, which the VPA intends to also refer to the Panel.

Further assessment and EPA positions

The VPA sought input from the EPA in preparing the PSPs for exhibition and has sought further comments from the EPA following exhibition, particularly in relation to the two buffers. This further correspondence with the EPA is included in your brief.

In relation to the composting buffer, the EPA recommended that a site-specific odour assessment be undertaken. Hi-Quality has engaged GHD to undertake this assessment. Copies of the GHD proposal and EPA's comments on that proposal are included in your brief.

Hi-Quality has advised us that it expects the draft GHD report will be provided to the VPA on 21 July 2017, for review by the VPA and EPA.

Scope

You are requested to consider:

1. the appropriate extent of the landfill and composting facility buffers having regard to odour;

2. the planning controls proposed in UGZ9 to apply within the buffers, in particular the applied zones and Clauses 3.7, 3.8 and 3.9; and
3. the submissions referred to the Panel in relation to the buffers.

You will be requested to undertake a peer review of the odour assessment by GHD when available, for inclusion in your evidence.

Brief

We have provided you with an electronic copy only of the brief of documents at this stage. Please advise if you would like us to provide you with a hard copy.

Your fees

We request that you send your fee proposal directly to the VPA, by email to Sarah McMaster at sarah.mcmaster@vpa.vic.gov.au, copied to Greg Tobin at gtobin@ha.legal and Tessa D'Abbs at tdabbs@ha.legal.

We confirm that you should not commence any substantive work on this matter until you have received confirmation that your fee proposal has been approved.

Our client will remain responsible for your fees. We require that any tax invoices be addressed to the VPA, by email to Sarah McMaster.

Legal professional privilege

We confirm that your professional opinion is sought in the context of us providing legal advice in relation to these amendments. Our advice, and your advice by virtue of you being engaged by us, attracts legal professional privilege. Our client is therefore not required to disclose any advice provided by you to any other party unless that legal professional privilege is waived.

To ensure that legal professional privilege is maintained, we request that you do not advise anyone, other than our client or Harwood Andrews, that you have been requested to provide expert advice in relation to this matter.

We will notify you if legal professional privilege is waived in respect of your advice.

Next steps

If you have any queries or require any further information, please contact Greg Tobin on 5225 5252 or Tessa D'Abbs on 9611 0117.

Yours sincerely,

HARWOOD ANDREWS

Encl.

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21.	PPV appointment letter


PETER J RAMSAY
& ASSOCIATES
www.pjra.com.au