


Annual Environmental Management Report - Clyde Transfer Terminal 2021-2022



**NSW Resource Recovery Annual Environmental
Management Report - Clyde Transfer Terminal**

Issue Date 14/03/2022

Name of operation	Clyde Transfer Terminal
Name of operator	Veolia Environmental Services
Development consent / project approval #	DA 205-08-01
Name of holder of development consent / project approval	Veolia Environmental Services
Mining lease #	NA
Name of holder of mining lease	NA
Water licence #	NA
Name of holder of the water licence	NA
MOP/RMP start date	NA
MOP/RMP end date	NA
Annual Review start date	15th of January 2021
Annual Review end date	14th of January 2022
<p>I, Anae Ressos, certify that this audit report is a true and accurate record of the compliance status of Clyde Transfer Terminal for the period 15 January 2021-14 January 2022 and that I am authorised to make this statement on behalf of Veolia Environmental Services.</p> <p>Note:</p> <p>a) The Annual Review is an 'environmental audit' for the purposes of section 122B(2) of the Environmental Planning and Assessment Act 1979. Section 122E provides that a person must not include false or misleading information (or provide information for inclusion in) an audit report produced to the Minister in connection with an environmental audit if the person knows that the information is false or misleading in a material respect. The maximum penalty is, in the case of a corporation, \$1 million and for an individual, \$250,000.</p> <p>b) The Crimes Act 1900 contains other offences relating to false and misleading information: section 192G (Intention to defraud by false or misleading statement—maximum penalty 5 years imprisonment); sections 307A, 307B and 307C (False or misleading applications/information/documents—maximum penalty 2 years imprisonment or \$22,000, or both).</p>	
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Executive Summary

This Annual Environmental Management Report (AEMR) is the 18th report prepared to detail the environmental performance of the Clyde Transfer Terminal (The Terminal), owned and operated by Veolia Australia and New Zealand (Veolia). This AEMR covers the period from the 15th January 2021 to 14th January 2022 (reporting period).

Veolia has prepared this AEMR in accordance with Consent Condition 58 and 59 of the Development Consent DA 205-08-01 (the Consent) and subsequent modifications, as well as relevant legislative requirements and industry best practices.

This AEMR provides a summary of environmental monitoring conducted at the Terminal and any non-compliances identified against the Consent during the reporting period, as well as the corrective actions, where implemented, to address such non-compliances.

An Independent Environmental Audit (IEA), undertaken in accordance with Condition 60 of the Consent, identified 2 non-compliances against the Conditions of the Consent (hereby referred to as Consent Conditions) during this reporting period which are as follows:

- Condition 50, did not include all the required content of the development consent.
- Condition 114, no specific training program for rail operators to minimise potential noise nuisance was observed.

1. Introduction

1.1 Site Background

The Terminal is located within a portion of the Clyde Rail Yard at 322 Parramatta Road and forms part of Lot 21 of DP10076683 in the Cumberland City Council area (Council). A site layout and location plan is provided in **Appendix A**.

The Terminal was granted ministerial approval in 2003 to operate under the Clyde Waste Transfer Terminal (Special Provisions) Act 2003 (assented 8 December 2003). The Consent was modified (29 April 2019) to permit the Terminal to receive up to 600,000 tonnes per annum (TPA) of mixed waste.

Clyde Waste Transfer Terminal commenced operations in 2004, accepting putrescible waste from the Sydney metropolitan area, which is containerised and loaded onto rail wagons for transportation in the Southern Tablelands (approximately 250 kilometres southwest of Sydney) for treatment, recycling and energy recovery.

1.2 Legislative Requirements

The key environmental legislation for the Terminal includes the *Environmental Planning and Assessment Act 1979* (EP&A Act) regulated by the DPE, and the *Protection of the Environment Operations Act 1997* (POEO Act) regulated by the NSW Environment Protection Authority (EPA), as well as their respective associated regulations.

Legislative instruments governing the environmental performance for the Terminal include the Consent, under the *Clyde Waste Transfer Terminal (Special Provisions) Act 2003* and an Environment Protection Licence (EPL) 11763 issued by the EPA, under the POEO Act. These permits regulate the operational activities conducted at the Terminal.

The table provided in **Appendix B** addresses the compliance against all Consent Conditions. Those relevant to the preparation of this AEMR are provided in **Table 1.1** below.

Table 1.1 Consent Conditions for the preparation of this AEMR

Relevant Condition	Requirement
GENERAL ENVIRONMENTAL MANAGEMENT	
<i>Environmental Monitoring Program</i>	
58	The Applicant shall include a report on the Environmental Monitoring Program in the Annual Environmental Management Report. The report must: (a) Summarise the results from the Environmental Monitoring Program over the previous year

	<ul style="list-style-type: none"> (b) Analyse the results in relation to both past performance, and the relevant standards and performance measures of the development (c) Identify any emerging trends in the data over the life of the development (d) Include a copy of the detailed monitoring results as an attachment.
Annual Environmental Management Report	
59	<p>Between twelve and fourteen months after the issue date of an environmental protection licence for the development; and annually thereafter for the duration of the development, the Applicant shall submit an Annual Environmental Management Report to the Secretary, the EPA and the Community Consultative Committee. The report shall be made available to the public on request to the Application. The report combined with the Annual Return required by the environment protection licence to be submitted to the EPA. The report must:</p> <ul style="list-style-type: none"> (a) Identify all the standards, performance measures, and statutory requirements the development is required to comply with (b) Review the environmental performance of the development to determine whether it is complying with the standards, performance measures and statutory requirements (c) Identify each occasion during the previous year when the standards, performance measures, or statutory requirements have not been complied with (d) where any non-conformance is identified, describe the actions or measures taken to ensure compliance, who is responsible for carrying out the actions, and when the actions were (or will be) implemented (e) include a summary of any complaints made about the development, and indicate the actions taken to address the complaints (f) include a report on the Environmental Monitoring Program as specified in this Consent.
Independent Environmental Audits	
60	<p>Every year following the date of this consent or at periods otherwise agreed to by the Planning Secretary, and until such time as agreed to by the Planning Secretary, the Applicant shall arrange for an independent audit of the environmental performance of the development. The audits shall:</p> <ul style="list-style-type: none"> (a) be conducted pursuant to ISO 14010 – Guidelines and General Principles for Environmental Auditing, ISO 14011 – Procedures for Environmental Monitoring and any specifications of the Planning Secretary; (b) be conducted by a suitably qualified independent person approved by the Planning Secretary; (c) assess compliance with the requirements of this consent; (d) assess the implementation of the EMP (Construction) and EMP (Operation) and review the effectiveness of the environmental management of the development; and (e) be carried out at the Applicants' expense. <p>The audits shall be submitted to the Planning Secretary.</p>

	The Applicant shall comply with all reasonable requirements of the Planning Secretary in respect of any measures arising from or recommended by the audits and within such time as agreed to by the Planning Secretary.
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1.3 Responsibilities

The Environmental Management Representative (EMR) for this reporting period was Anae Ressos (Environmental Coordinator) as per Consent Condition 55.

Environmental monitoring was undertaken by the NSW Resource Recovery technical support personnel - Sara Maddison (former Operations Project Manager), Anae Ressos (Environmental Coordinator) and Mary Wong (Environmental Officer).

The Odour Unit PTY LTD (TOU) was appointed to conduct biannual odour audits.

Hydrometric Consulting Services completed calibrations/servicing of the weather station.

Expert Judgement Pest Management Pty Ltd (Expert) was appointed for pest and vermin control throughout this reporting period and inspections are undertaken on a routine basis. In addition to this, there are routine inspections undertaken by the Terminal's operators, as part of general housekeeping and recorded on relevant Housekeeping and Inspection checklists.

Epic Environmental conducted an IEA in November 2021. The audit team associated with this IEA included Romin Nejad (Lead Auditor), Gary Bagwell (site inspector) and Priya Nair (auditing assistant) approved by the DPE in accordance with Consent Condition 60.

2. Environmental Monitoring and Management

2.1 Monitoring Requirements

The following sections detail the monitoring undertaken throughout the reporting period in accordance with the Environmental Monitoring Program proposed within the Operational Environmental Management Plan (OEMP).

The Environmental Monitoring Program provides details on all monitoring requirements of the Consent and other appropriate regulations to measure and assess the continuing suitability, adequacy and effectiveness of on-site environmental management measures.

Table 2.1 summarises the environmental monitoring program for the Terminal and a monitoring location plan is provided in **Appendix C**.

Table 2.1 - Summary of the environmental monitoring program for the Terminal

Consent Condition	Type of Monitoring	Frequency	Commentary
48 (f)	Odour Audits	Biannual	Condition satisfied, monitoring conducted on 13 May and 25 November 2021
49	Dust monitoring	Following receipt of dust complaint, as required	Not triggered
50	Traffic Monitoring	Monthly	Ongoing basis
60	Independent Environmental Audit	Annual	Condition satisfied, audit conducted in November 2021
91	Meteorological monitoring	Continuous (15 minute intervals)	Ongoing basis
117	Pest and Vermin Inspections	Quarterly	Ongoing basis

2.1.1 Meteorology

Veolia operates an automated onsite weather station (Campbell Scientific Model CR800) to continuously log meteorological data, in accordance with Consent Condition 91. This allows sampling and analysis of the parameters specified in **Table 2.2** below, along with standards and statutory requirements to collect and record this data.

Table 2.2 - Meteorological data parameters and performance measures

Parameter	Performance Measure	Standards	Statutory Requirement
Wind Speed	Data correlated with other environmental monitoring results for Terminal operations and complaint resolution	AM-2 & AM-4	Consent Condition 91
Wind Direction		AM-2 & AM-4	
Sigma Theta		AM-2 & AM-4	
Temperature		AM-4	
Rainfall		AM-4	
Solar Radiation		AM-4	
Evaporation		Penman-Monteith method	

Captured meteorological data provides a general understanding of the ambient air conditions at the Terminal, which in turn allows us to use this data within investigations of potential odour and dust complaints as well as other environmental incidents. Justification for the collection of specific meteorological data is provided below.

Wind Speed, Wind Direction and Sigma Theta

Wind speed, direction and sigma theta (which are used to calibrate turbulence) are logged at 15-minute intervals, the data from which is used to respond to odour and noise complaints, on receipt.

Temperature and Solar Radiation

In combination with wind speed, temperature and sunlight (solar radiation) play an important role in odour and dust emission modelling to predict airflow patterns and atmospheric stability. In the event that a complaint is received, these parameters would be used to conduct assessments to identify whether adverse air quality impacts can be attributed to operations at the Terminal.

Evaporation

Evaporation measures the extent of vaporisation of a liquid into gaseous phase. Water molecules are small and highly polar which can bind to many substances including odorous gases and dust particles. Therefore, evaporation can be used to conduct dispersion modelling in the event of an odour/or dust complaint.

Rainfall

Rainfall data is measured and recorded at 15-minute intervals at the Terminal to provide an understanding of rainfall patterns and to highlight significant rainfall events. Rainfall generally affects the emissions of dust and odours, as it is able to wash particulate matter and dissolves gaseous pollutants out of the atmosphere. Given this, rainfall data is utilised within responses to odour and/or dust complaints.

In addition, the intensity and duration of stormwater events at the Terminal can be used to assess the performance of the stormwater management system.

A summary of monthly rainfall and evaporation rates, as well as minimum and maximum monthly temperatures at the Terminal during this reporting period is presented below in **Figures 2.1** and **2.2** respectively.

Overall, the average rainfall for the Terminal during this reporting period was recorded at 100.4mm per month.

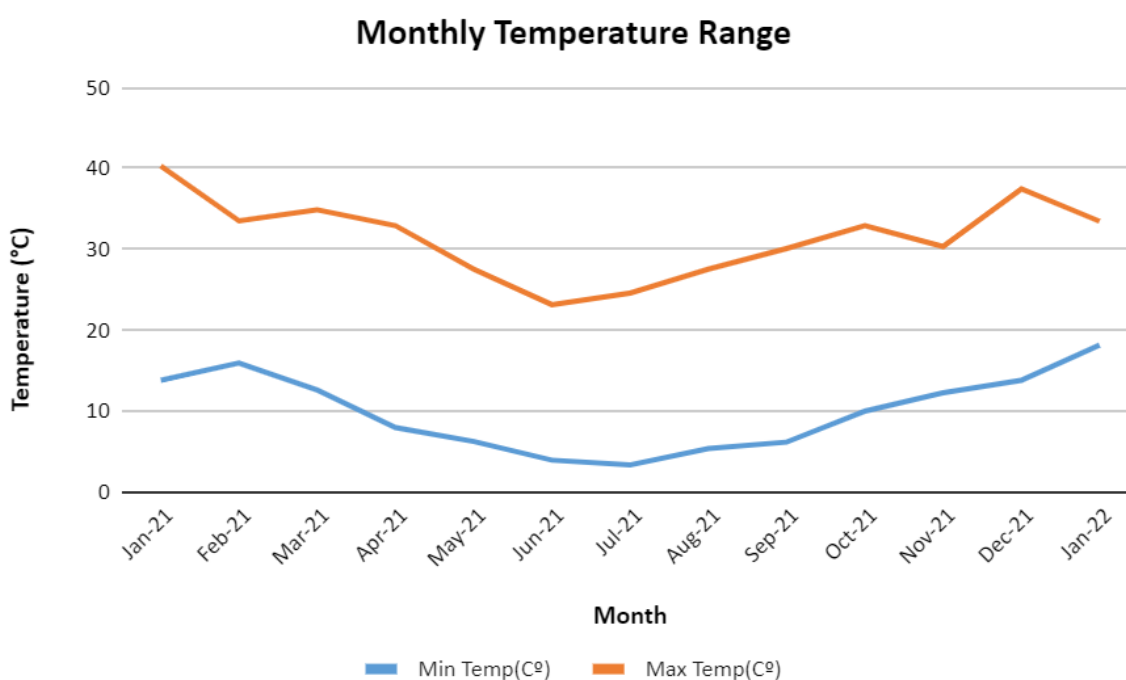


Figure 2.1 - Average Monthly Temperature rates at the Terminal

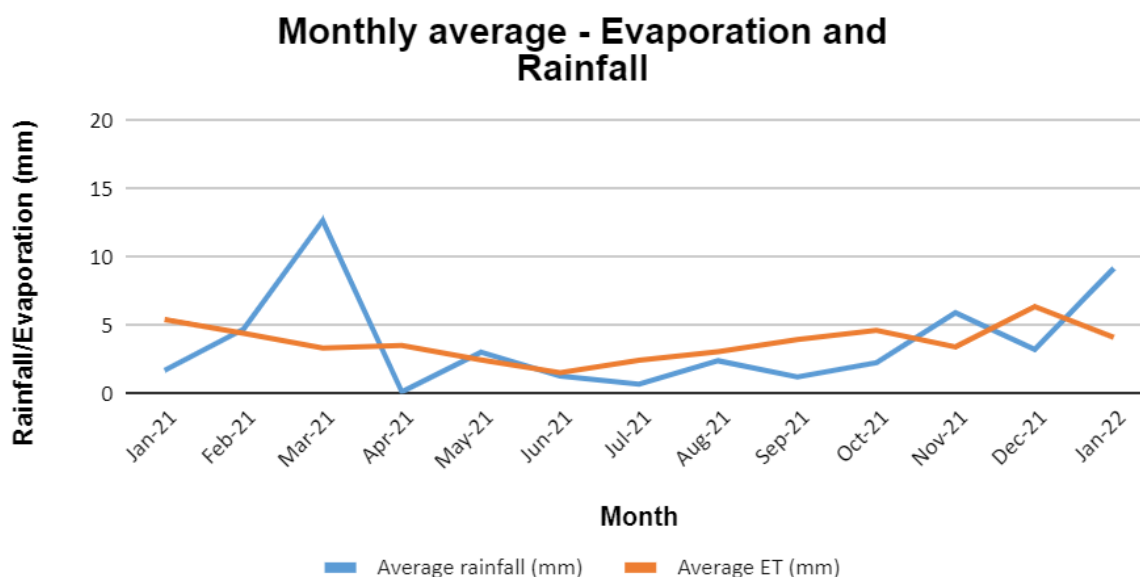


Figure 2.2 - Average Evaporation and Rainfall rates at the Terminal

During the reporting period, no non-compliances relating to the collection of meteorological data occurred. In August 2021, a service of the meteorological station was not conducted due to covid-19 restrictions - field operators resided outside of Greater Sydney and could not enter the region.

Servicing and calibration of the meteorological station was carried out by Hydrometric Consulting Services (HCS). Calibration records for the months of February, May, and October 2021 can be found in **Appendix D1**.

2.2 Air Quality

In accordance with the Consent, the Terminal has adopted performance criteria pertaining to dust and odour emissions, which are summarised in **Section 2.2.1** and **Section 2.2.2** respectively.

Air quality monitoring was carried out as required to determine whether activities conducted at the Terminal impacted ambient air quality. Further details regarding air quality monitoring and management practices undertaken at the Terminal are provided in the following sections.

2.2.1 Dust

To manage dust, Veolia utilises and maintains a dust suppression system in the waste shed. Further controls for areas within close proximity of the waste shed are regularly maintained with the use of the road sweeper and general housekeeping.

In accordance with Consent Condition 49, following the receipt of any dust related complaints, investigations would be undertaken to monitor or implement additional measures aimed to mitigate identified dust impacts on residential or commercial areas, associated with the operation of the Terminal. The NSW EPA (2007 and 2017) air quality parameters that would be measured to determine dust emissions, are provided in **Table 2.3**.

Table 2.3 - NSW EPA air quality impact Dust assessment criteria

Parameters	Performance Measure	Standards	Statutory Requirement
Total Suspended Particulates (TSP) - Annual Average	90µg/m ³	Approved Methods for the Sampling and Analysis of Air Pollutants in NSW	Consent Condition 49
Deposited Dust (DD) - Incremental	2 g/m ² /month		
Deposited Dust (DD) - Cumulative	4 g/m ² /month		

The EIS prediction expected some minor air quality impacts during operation (Maunsell McIntyre, 2001). The level of impact is minimised through effective site control measures so that residents and commercial industries surrounding the site are not impacted at a level likely to cause nuisance.

No dust complaints were received during this reporting period therefore monitoring requirements were not triggered.

2.2.2 Odour

The requirements of Consent Conditions 48(e) and 77 are to ensure site operations meet the EPA's odour goal of less than 2 odour units (OU) at the nearest sensitive receiver (Refer to **Table 2.4**).

Table 2.4 - Odour Emission Performance Criteria

Parameter	Performance Measure	Standards	Statutory Requirement
Odour Emissions	2 OU	German Standard VDI 3940 "Determination of Odorants in Ambient Air"	Consent Condition 48E

		by Field Inspections"	
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To achieve this goal, the Terminal operates an air extraction system within the Terminal's building, which was designed to both ventilate the building, and capture and disperse odour emissions from within the building. In addition, containers used for the transportation of waste are fitted with activated carbon filtration systems on the air exhaust vents.

In accordance with Consent Condition 48, the performance of odour control and ventilation equipment is assessed in biannual odour audits which were conducted by the Odour Unit PTY LTD. Records of the June and November 2021 odour audits are provided in **Appendix D2. Table 2.5** below provides a summary of the odour audit results.

The odour audits were conducted using the ranking scale stipulated within the German Standard VDI 3940 "Determination of Odorants in Ambient Air by Field Inspections". The standard ranking system is based on the following seven-point intensity scale, as follows:

VDI 3940	Intensity Scale
0	Not Detectable
1	Very Weak
2	Weak
3	Distinct
4	Strong
5	Very Strong
6	Extremely Strong

Table 2.5 - Summary of Odour Audit Results 2021

Assessment Location	Wind Direction	13/05/2021	Assessment Location	Wind Direction	25/11/2021
1 - Onsite (North-West)	N	0	1 - Onsite (North-West)	N	0
2 - Onsite (South-East)	N	0	2 - Onsite (South-East)	N	0
3 - Onsite (South-East)	N	0	3 - Onsite (South-East)	N	0

4 - Offsite (Auburn Residential)	N	0	4 - Offsite (Clyde/Auburn Residential)	N	0
5 - Offsite (Auburn Residential)	N	0	5 - Offsite (Auburn Residential)	N	0
6 - Offsite (Auburn Residential)	N	0	6 - Offsite (Auburn Residential)	N	0

Odour audits undertaken on the 13th of May and 25th of November 2021, detected 0 odorants in the Field Ambient Odour-Assessments.

The results of the two odour audits indicate the Terminal complies with Consent Condition 48(e), which states that odour at the Terminal shall not exceed 20U at the nearest receiver.

The Terminal continues to meet the requirements of the *Technical framework: assessment and management of odour from stationary sources in NSW (DEC, November 2006)*. Veolia also maintains a thorough housekeeping regime, combined with odour management controls, which help to minimise the likelihood of odour impacts on surrounding neighbours/receivers.

No odour complaints were received during this reporting period.

2.3 Noise Monitoring

Table 2.6 lists the parameters, respective performance measures, standards and statutory requirements for background noise levels and vehicle emissions limits.

Table 2.6 - Noise Monitoring Requirements

Parameter	Performance Measure (dB(A))	Standards	Statutory Requirement
Day - LAeq (15 minute)	44,40,41	Noise Management	EPL Condition L3.1
Evening - LAeq (15 minute)	38,38,39		
Night - LAeq (15 minute)	39,38,39		
Night - LA1 (15 minute)	56,54,52		
Vehicle Emissions	89	Australian Design Rule (ADR) 28/01	Consent Condition 112

Noise monitoring was undertaken at the Terminal to ensure that waste vehicles entering the Terminal are not emitting nuisance noise emissions.

In the EIS, day and night time scenarios and sound power level designated for the plant equipment, calculated noise levels are predicted to comply with the EPA's intrusiveness and amenity criteria at the closest residential, commercial and industrial premises (Maunsel McIntyre, 2001).

There were no registered noise complaints from either industrial, commercial or residential neighbours throughout this reporting period.

2.3.1 Truck Noise Monitoring

The truck noise monitoring was undertaken on the 24th of November 2021 in accordance with Consent Condition 112 for this reporting period. Noise levels of 105 truck movements out of a daily total of 253 truck movements were measured, equivalent to 41.50% of truck movements. A summary of the results is illustrated in **Figure 2.3**. Further details regarding truck movements at the site are discussed in **Section 2.4.1**.

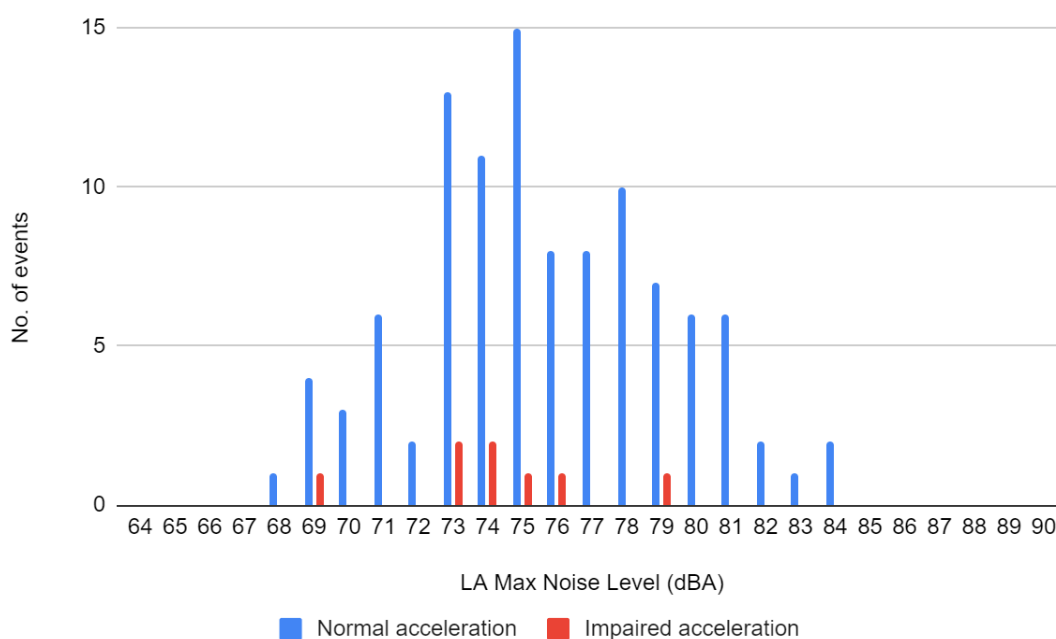


Figure 2.3 -Noise level distribution from Truck Noise Monitoring – 24 November 2021

All trucks monitoring were between 68.8dBA to 84.1dBA, and fell within or below the thresholds of 81dBA to 87dBA for Heavy Goods Vehicles with a GVM > 12 tonne in accordance with the Australian Design Rules (ADR) 28/01.

There were no registered noise complaints from either industrial, commercial or residential neighbours throughout this reporting period.

2.4 Traffic Monitoring

2.4.1 Traffic Movements

Vehicle movements at the Terminal during this reporting period totalled at 81,027 as summarised in **Table 2.7** below.

Table 2.7- Traffic movements per month for 2020/2021 & 2021/2022 reporting periods

Monitoring Period	2020/2021 Truck Movements	2021/2022 Truck Movement
15 to 31 January	4,063	6,618
February	6,821	6,471
March	7,168	7,117
April	6,432	6,800
May	6,256	6,622
June	6,614	6,502
July	6,846	6,388
August	6,233	5,958
September	6,917	5,915
October	7,099	5,944
November	6,833	6,339
December	7,290	7,358
1 to 14 January	3,087	2,995
TOTAL	81,659	81,027

In the EIS, it was predicted that there would be minimal disruption from existing traffic within the site and Parramatta Road (Maunsel McIntyre, 2001).

No noise, odour and traffic complaints were received during this reporting period which demonstrates that the movements of trucks at the Terminal did not contribute to any significant noise/odour/ traffic impacts to the surrounding environment.

2.4.2 Traffic Infringements

As part of Development Modification 5, Condition 119 was modified to enable waste vehicles to turn right from Parramatta Road following the completion of intersection upgrade works. Veolia has been liaising with Roads and Maritime Services and Council to progress these works.

Due to the inability to maintain full compliance with condition 119, a modification was sought and approved by DPE in 2019. Intersection upgrade works at the entrance of the Terminal will enable waste vehicles to turn right from Parramatta Road into the facility. Veolia has been liaising with Roads and Maritime Services and Cumberland Council to progress these works. No construction activities were able to be planned or completed in 2021 due to COVID-19.

In the interim, Veolia continues to implement mitigation measures including ongoing spot monitoring of vehicle movements as described in the TMP.

2.5 Waste Monitoring

The Waste Management Plan (WMP), which forms part of the OEMP, was prepared for the Terminal in accordance with Consent Condition 47, and 62–69, and details the procedures for the acceptance and management of waste at the Terminal.

All waste received at the Terminal is recorded and maintained in the Systems, Applications and Products in Data Processing (SAP) software. The program records vehicle registration, date and time of entry and exit, the gross and tare weight of the vehicle, as well as the nature and origin of waste received by each contractor.

Procedures are in place to reject or separate non-conforming waste upon arrival at the site. These procedures include visual assessments of incoming wastes by weighbridge operators assisted by closed circuit television (CCTV), as well as inspecting the waste as it is unloaded onto the tip floor. No records of non-conforming waste were reported during this reporting period.

Furthermore, data is recorded and tracked for the containers and includes container status, container weight comparisons and carbon filter replacement. This information is maintained daily by Terminal personnel.

2.5.1 Waste Volume Monitoring

The amount of waste accepted at the Terminal in the 2021 calendar year totalled 428,792 tonnes as summarised in **Table 2.8** below.

Table 2.8 - Summary tonnage per month during 2020 and 2021

Monitoring Period	Incoming Waste Volumes 2020 (tonnes)	Incoming Waste Volumes 2021 (tonnes)
January	37,532	36,875
February	37,410	36,888
March	37,303	41,004
April	33,707	38,024
May	32,701	35,995
June	34,483	34,617

July	36,257	33,431
August	32,729	30,718
September	37,766	31,128
October	38,983	32,422
November	37,698	35,106
December	41,689	42,584
TOTAL	438,258	428,792

Table 2.8 indicates that during the 2021 calendar year there was a decrease in waste by 9,466 tonnes compared to the 2020 calendar year. This demonstrates the Terminal operated within the annual waste limit as stipulated within Consent Condition 10.

2.6 Pests and Vermin

Pests and vermin management is undertaken at the Terminal to ensure that the control measures implemented to minimise the potential for birds, rodents, flies and other pests, remain effective. The primary means of controlling pest and vermin activity is through good housekeeping measures, daily inspections, and quarterly pest control services. **Table 2.9** below identifies the housekeeping undertaken at the Terminal to manage pests and vermin.

Table 2.9 - Pest and Vermin Management

Parameter	Performance Measure	Standard	Statutory Requirement
Litter and Odour Control	Visual Inspection and housekeeping	Veolia Business Management System	Vermin and Pest Control Plan-Consent Conditions 51, 115-117
Vermin Habitat			

Pest control was undertaken by Expert throughout this reporting period. In addition, inspections are undertaken on a routine basis by the Terminal's operators, as part of general housekeeping and recorded on relevant housekeeping and inspection checklists.

The checklists provide a record of the visual monitoring undertaken at the Terminal and provide opportunity to identify where additional corrective actions may need to be applied.

During the quarterly pest and vermin control services this reporting period, the external contractor inspected and treated all internal, external areas of the waste shed and site facilities for cockroaches, ants, spiders and rodents. These areas were treated with Roban rodent bait and Cislin 25 spray respectively. The reports can be found in **Appendix D4**.

During the 2021 IEA, the auditors found that Veolia has taken all suitable measures to minimise the attraction and infestation of vermin and pests on site.

2.7 Community Consultation

Under Condition 134 the Terminal is required to establish and maintain a Community Consultative Committee (CCC). This is to ensure the Committee may make comments and recommendations about the Terminal's development, management and environmental plans. Veolia continues to send interested stakeholders biannual Clyde community newsletter which details any site updates.

As COVID-19 restrictions have eased in NSW, Veolia is currently seeking interest from the local Clyde community to attend a dedicated site tour. In the previous reporting period, a tour date was proposed, however, it was postponed due to a lockdown.

3. Environmental Performance

The environmental performance of the Terminal is assessed through the results of environmental monitoring, internal inspections, as well as external environmental audits.

An IEA of the Terminal's environmental performance was undertaken between 6 December to 13 January 2022 by Epic Environmental. The objective of this IEA was to assess the environmental performance of the Terminal and identify any non-compliances against environmental approval issued to the Terminal, as required by Condition 6 of the Consent. The status of each condition of the consent can be found in the Development of Consent table provided in **Appendix B**.

A discussion of the non-compliances identified by the IEA, as well as the corrective actions, where implemented, is provided within this section. A comparison is also made to the non-compliances/regulatory actions and corrective actions implemented in the previous reporting period to present the changes to the environmental performance of the Terminal.

3.1 Previous Non-Compliances

Three non-compliances were identified during the 2020 reporting period and the status of corrective actions to resolve/manage the non-compliances are detailed in **Table 3.1** below.

Table 3.1 - Non-compliances and observations against the Consent in the 2020 reporting period

Consent Condition	Non-compliance/ Observations	Corrective Action and Evidence	Status and Date Completed	Person/Team Responsible
Condition 50	<p>The TMP was reviewed and largely addressed the consent condition, with the exception of Veolia not having:</p> <ul style="list-style-type: none"> - Implemented an enforcement program including the imposition of identified punitive measures against any driver or vehicle owner whenever the above restrictions are breached. - Defined contracts with waste transporters that include conditions addressing entry and exit restrictions and permissible waste transport routes and punitive 	<p>Prepare and lodge a modification to the development consent that removes the requirement for Veolia to enforce punitive measures to non-conforming customers.</p> <p>As part of the modification Veolia will apply for a revised condition that requires Veolia to provide further training with offending drivers and remove access authorisation for drivers that are repeat offenders</p>	<p>Completed. Awaiting DPE's response to confirm whether the newly implemented proactive measures listed below are sufficient to replace punitive measures.</p> <p>Veolia had a meeting with DPE in August 2021 to discuss modifying this condition. DPE indicated they would consider a modification to this condition if Veolia proposed additional proactive measures instead of enforcement of punitive measures.</p>	<p>Operations Project Manager - NSW Resource Recovery / EMR resigned and handed over responsibility to the Environmental Coordinator/EMR and the Environmental Compliance Advisor</p>

	<p>measures for non-compliances.</p> <ul style="list-style-type: none"> - Measures to minimise trucks and other heavy vehicles from entering or exiting the premises between the hours: 10pm and 5am Mondays to Saturdays; 10pm and 7am Sundays and public holidays 		<p>Veolia implemented a trial online driver induction program with certain customers.</p> <p>Veolia will also be regularly sending letters to customers reminding them of the site entry requirements.</p>	
Condition 126 (c)	The Emergency Response Plan was reviewed as part of the IEA and the document largely addressed the requirements of the condition with the exception of an estimate of the cost of implementation	Update the emergency response plan to include an annual cost estimate for implementation of the plan	Completed	Graduate Environmental Engineer - NSW Resource Recovery
Condition 136	The condition requires Veolia to establish and maintain a trust fund to facilitate the functioning of the Community Consultative Committee (CCC). During the audit it was determined Veolia had not established such a fund. Whilst it is understood a community consultative committee has not been able to be established, the requirement for payment to a trust fund as required by this condition has not been removed. Therefore Veolia has not demonstrated reasonable compliance with this condition.	Prepare and lodge a modification to the development consent that removes the requirement for Veolia to establish and maintain a trust fund for a Community Consultative Committee that could not be established.	<p>Completed. Awaiting DPE's response</p> <p>Modification request submitted requesting DPE to consider an amendment to this condition which would remove the requirement for a trust fund (whilst a CCC is not in place). If community interest is regained and a CCC is restarted then the trust fund would be required.</p>	Operations Project Manager - NSW Resource Recovery / EMR resigned and handed over responsibility to the Environmental Compliance Advisor

3.2 Current Non-Compliances

Two non-compliances were identified during the 2021 reporting period and are detailed in **Table 3.2** below, the status of corrective actions to resolve/manage the non-compliance is also provided.

Table 3.2 Non-compliances against the Consent in the 2021 reporting period

Consent Condition	Non-compliance	Corrective Action and Evidence	Status	Person/Team Responsible
Condition 50	<p>The TMP was reviewed and largely addressed the consent condition, with the exception of Veolia not having:</p> <p>b) A monitoring and recording program to identify and record any waste vehicle and its driver that breaches the "left turn only" restriction upon entering or leaving the premises via Parramatta Road. The TMP only provides for sporadic spot checks of trucks entering or leaving the CTT. The auditor understands a continuous monitoring for non-complying trucks would be impossible for Veolia, as the weighbridge does not have a proper line of site to the intersection with Parramatta Road and the 'legal' right turn from Parramatta Road is utilised by trucks that are associated with the neighbouring industrial tenancies.</p> <p>e) An enforcement program including the imposition of identified punitive measures against any driver or vehicle owner whenever the above restrictions are breached. The auditor understands punitive measures would be difficult for a commercial business to enforce. Veolia stated at the time of the IEA that they prefer to re-train offending parties</p>	<p>Prepare and lodge a modification that removes the 'left turn only' restriction.</p> <p>If modification is denied, Veolia seeks to modify conditions 50b) and 50e) requiring continuous monitoring and enforcing punitive measures. Veolia has requested alternative monitoring frequency: monitoring for 4 hours every 3 months, and proposed implementation of proactive corrective measures and re-training of offending drivers instead of enforcement of punitive measures.</p>	Completed. Awaiting DPE's response	Facility Manager - NSW Resource Recovery
Condition 114	The condition requires Veolia to implement an induction program with Pacific National (rail operator) for all train drivers and other rail staff. This program should	Prepare and lodge a modification that replaces the requirement for Veolia to	Completed. Awaiting DPE's response	Environmental Compliance Advisor (NSW/ACT) Facility Manager -

	emphasise noise mitigation measures through "Good Neighbour" rail techniques and shall form an integral part of the operational noise management plan. During the IEA, a training program developed alongside Pacific National was not observed. The NMP did not include specifications for such a training program. It is understood Pacific National has internal training processes for "Good Neighbour" rail techniques that may be sufficient to address this condition, however it was beyond the scope of this IEA to verify that this is the case.	undertake training with rail operators and change this to a requirement for Veolia to verify the existing training programs provided by the rail operators to minimise the risk of nuisance being caused to neighbouring properties.		NSW Resource Recovery
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3.3 Previous Opportunities for Improvement

A total of nine opportunities for improvement were identified during the 2020 IEA. The opportunities for improvement are detailed in **Table 3.3** below.

Table 3.3 Recommendations for Opportunities for Improvements for the 2020 reporting period

Consent Condition	Recommendation	Proposed Actions	Status	Person/Team Responsible
Condition 57	Write to the DPI&E and seek written approval for the monitoring consultant (the Odour Unit) as required under condition 57.	Submit a letter to DPE, requesting a written approval for the odour monitoring consultant (TOU).	Completed	Environmental Management Representative - NSW Resource Recovery
Condition 87	Prepare and lodge a modification to the development consent that removes the requirement for monitoring of the forced ventilation system in accordance with the EPL. As EPL 11763 does not require monitoring of the forced ventilation system, condition 87 should be updated to remove any ambiguity.	Lodge a modification to remove the development consent that removes the requirement for monitoring the forced ventilation system, as EPL does not require monitoring of the forced ventilation system.	Completed. Awaiting for DPE's response	Environmental Management Representative - NSW Resource Recovery
Condition 113	Develop and implement a process to undertake annual verifications of driver induction training completion. The process	Develop and implement a process to undertake annual	An electronic driver induction was	Facility Manager - NSW Resource Recovery

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	could be in the form of annual checks of all drivers against training records provided by the customer	verifications of driver induction training completion.	implemented with certain customers. This process will be implemented across the customer base within the next reporting period.	Environmental Management Representative - NSW Resource Recovery
Condition 114	Prepare and lodge a modification to the development consent that replaces the requirement for Veolia to undertake training with rail operators and change this to a requirement for Veolia to verify the existing training programs provided by the rail operators are suitable to minimise the risk of nuisance being caused to neighbouring properties.	Lodge a modification to replace the development consent that replaces the requirement for Veolia to undertake training with rail operators and change to verify the existing training programs provided by the rail operators.	Completed. Awaiting for DPE's response	Environmental Management Representative - NSW Resource Recovery
Condition 130, 131 and 132	As the previous Auburn Council has now amalgamated into Cumberland City Council, Veolia should re-engage with the current Council with regards to Condition 130, 131 & 132. Specifically, Veolia should identify whether there is any interest from the Council to collaborate on a Duck Creek Riparian Zone improvement project.	Veolia has submitted a letter and awaiting response from Council	Completed	Facility Manager - NSW Resource Recovery Environmental Management Representative - NSW Resource Recovery
S4.3.2 of the OEMP	List of interested parties (i.e., stakeholders) contact details should be prepared for the site. At a minimum this should include: <ul style="list-style-type: none"> - All neighbouring properties; - Relevant local community members; - Respondents to the development consent modifications; and - The Local Councillor. These parties should be invited to any community open day	Completed	Completed	Environmental Management Representative - NSW Resource Recovery
S5.1.2 of the	Remove any reference to Auburn	Completed	Completed	Environmental

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OEMP	Council across the OEMP and associated sub-plans.			Coordinator - NSW Resource Recovery
S5.2 of the OEMP	Prepare and implement a formal management review process in accordance with s5.2 of the OEMP.	Prepare and implement a formal management review process in accordance with s5.2 of the OEMP	Completed	Environmental Coordinator - NSW Resource Recovery
S4.1 of the Dust Management Plan	Update s4.1 of the Dust Management Plan to remove the requirement for certain adverse weather conditions to trigger a risk assessment. Existing mitigation measures are considered suitable for management of dust risks from the site.	Completed	Completed	Environmental Coordinator - NSW Resource Recovery

3.4 Opportunities for Improvement

A total of 11 opportunities for improvement were identified during the 2021 IEA. The opportunities for improvement are detailed in **Table 3.4** below.

Table 3.4 Recommendations for Opportunities for Improvements for the 2021 reporting period

Consent Condition	Recommendation	Proposed Actions	Status	Person/Team Responsible
Condition 54	Provide a copy of the Noise Management Plan to Pacific National and Cumberland Council for review and comment.	A copy of the Noise Management Plan will be provided to Pacific National and Cumberland Council	Completed	Facility Manager - NSW Resource Recovery Environmental Management Representative - NSW Resource Recovery
Condition 63	Prepare and lodge a modification to the development consent that adjusts the condition to contemporary guideline references.	Lodge a modification to adjust the condition to contemporary guideline references.	Completed. Awaiting for DPE's response	Facility Manager - NSW Resource Recovery Environmental Management Representative - NSW Resource Recovery

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				Recovery
Condition 87	Prepare and lodge a modification to the development consent that removes the requirement for monitoring of the forced ventilation system in accordance with the EPL. As EPL 11763 does not require monitoring of the forced ventilation system, condition 87 should be updated to remove any ambiguity.	Lodge a modification to remove the development consent that removes the requirement for monitoring the forced ventilation system, as EPL does not require monitoring of the forced ventilation system.	Completed. Awaiting for DPE's response	Environmental Management Representative - NSW Resource Recovery
Condition 113	Implement the online driver induction process across the CTT customer base.	During the reporting period an electronic induction system was commenced to manage COVID-19 restrictions. The electronic induction system will be implemented across the CTT customer base.	This will be fully implemented in the next reporting period	Facility Manager - NSW Resource Recovery
Condition 136	Prepare and lodge a modification to the development consent that removes the requirement for Veolia to establish and maintain a trust fund for a Community Consultative Committee.	Lodge a modification to remove the requirement for Veolia to establish and maintain a trust fund for Community Consultative Committee	Completed. Awaiting for DPE's response	Facility Manager - NSW Resource Recovery Environmental Management Representative - NSW Resource Recovery
OEMP s4.2.2.1	Update the OEMP to have a 2-yearly retraining program for any site-specific environmental training. Remove the requirement to have site-specific training reassessed twice in the first year.	Veolia will update the plans and resubmit to DPE for approval	Not yet commenced - to be completed in the next reporting period	Environmental Coordinator - NSW Resource Recovery
WMP s4.3	Remove the commitment to identify waste material that is odorous or dusty and prioritise such waste for compaction.	Veolia will update the plans and resubmit to DPE for approval	Not yet commenced - to be completed in the next reporting period	Environmental Coordinator - NSW Resource Recovery

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WMP s4.4.1	Remove the commitment for the weighbridge attendant to have printed material available for provision to drivers.	Veolia will update the plans and resubmit to DPE for approval	Not yet commenced - to be completed in the next reporting period	Environmental Coordinator - NSW Resource Recovery
WMP s4.4.1.1	Update the section of the WMP to reflect the actual process for measures taken in the event of breaches of waste acceptance criteria, including notifying offending companies.	Veolia will update the plans and resubmit to DPE for approval	Not yet commenced - to be completed in the next reporting period	Environmental Coordinator - NSW Resource Recovery
NMP s4.2.3	Remove the requirement for Veolia to have any responsibility for assets that are under the operational control of other organisations.	Veolia will update the plans and resubmit to DPE for approval	Not yet commenced - to be completed in the next reporting period	Environmental Coordinator - NSW Resource Recovery
EMP s2	Update the EMP to include the surface water monitoring program implemented at the CTT.	EMP has been updated to include stormwater monitoring.	Completed	Environmental Officer - NSW Resource Recovery

3.5 Complaints

The Veolia company website contains a general enquiries line whereby a complaint can be lodged and directed to the relevant facility. These contact details are also provided on-site via signage erected at the entrance of the Terminal.

Complaints (either written or verbal) are documented to record the following:

- Nature and extent of the complaint;
- Method by which the complaint was made;
- Name and address of the person lodging the complaint (the complainant);
- Details of all related factors including location, dates, frequency, duration, site conditions and effects of the complaint; and
- Action taken to address the complaint including follow up contact with the complainant.

No complaints were received during this reporting period.

Details of nominated personnel relevant to the complaints handling process for the Terminal are provided in **Table 3.5** below.

Table 3.5 - Details of the Terminal's nominated personnel

Contacts Name	Position
Steve Lawrence	Sydney Facilities Operations Manager
Rod Jones	Clyde Facility Manager
Anae Ressos	Environmental Coordinator / Environmental Management Representative
Nicole Boukarim	Environmental Compliance Advisor (NSW/ACT)
Sioi Matele	Site Leading Hand

3.6 Conclusion

A performance review of the Terminal between 2021 - 2022 reporting period and the outcome of the IEA indicates that Veolia achieved 98% compliance against the conditions for the 2021 IEA. A total of two conditions were identified to be non-compliant, compared to three non-compliances in the previous reporting period. Veolia was found to be 100% compliant with the conditions of the EPL and will continue to maintain that level. Veolia successfully updated the OEMP and associated sub-plans which were approved by DPE this reporting period.

Veolia will address and implement the IEA audit recommendations to improve its environmental compliance performance against the Consent.

Overall, the Terminal operations are satisfying the requirements of the Consent and EPL.

Terms and Definitions

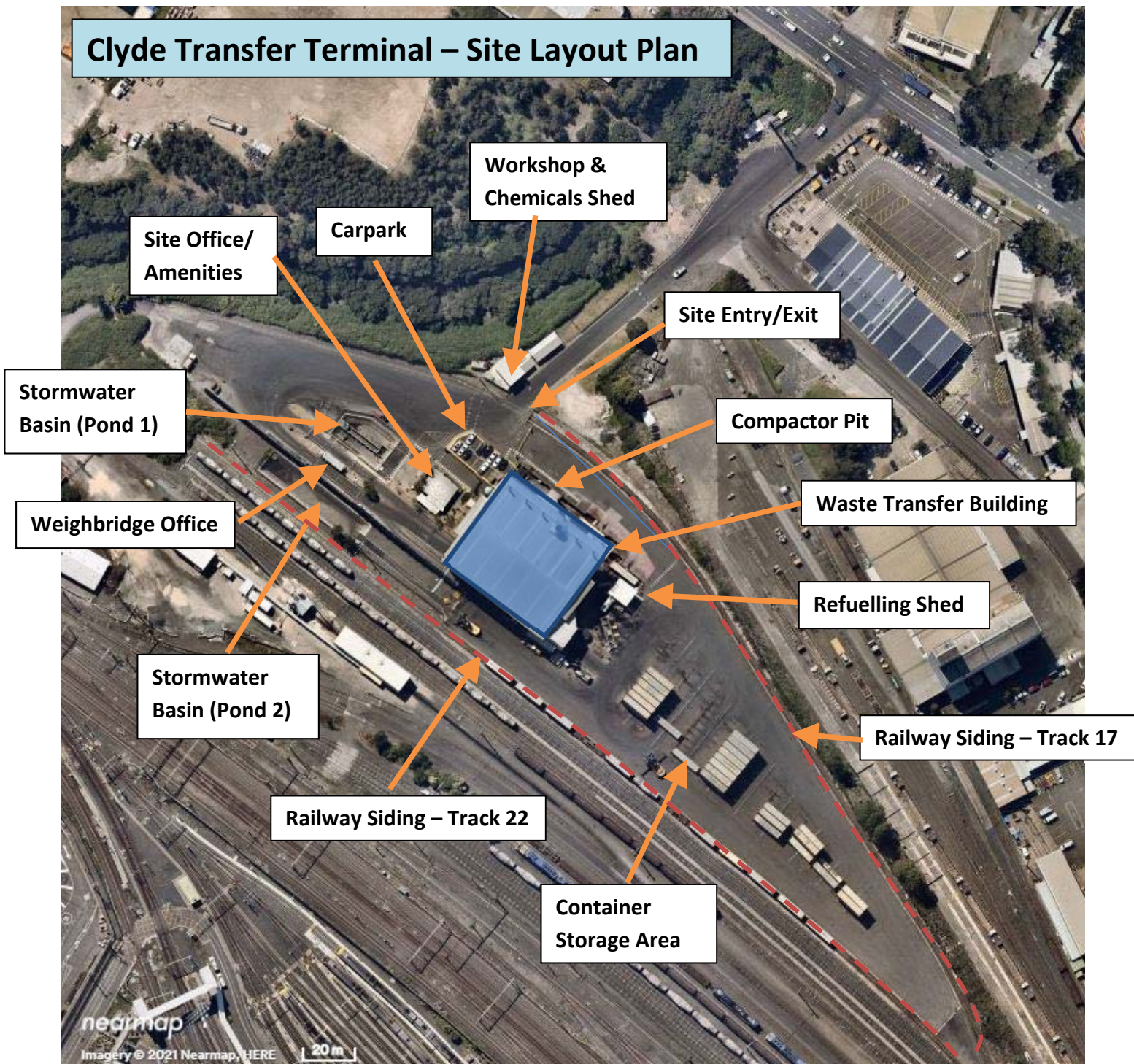
Term	Definition
AEMR	Annual Environmental Management Report
Consent	Development Consent DA 205-08-01 (and subsequent modifications)
DPE	Department of Planning and Environment
EMR	Environmental Management Representative
EPA	NSW Environment Protection Authority
EPL	Environment Protection Licence
IEA	Independent Environmental Audit
OEMP	Operational Environmental Management Plan
Rivo Safeguard	Veolia's online system for reporting and managing incidents, recording audits and regulator enforcement information
SHEQ	Safety Health Environment Quality
TOU	The Odour Unit PTY LTD
The Terminal	Clyde Transfer Terminal
TPA	Tonnes per annum
TMP	Traffic Management Plan
Veolia	Veolia Australia and New Zealand
WMP	Waste Management Plan

Reference Documents

Document Name
DEC (2006). <i>Technical framework: assessment and management of odour from stationary sources in NSW</i> , Department of Environment and Conservation. November 2006
NSW EPA (2014). <i>NSW Waste Classification Guidelines</i> , NSW Environmental Protection Agency. January 1996.
NSW EPA (2007). <i>Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales</i> . January 2007
NSW EPA (2017). <i>Approved Methods for the Modelling and Assessment of Air Pollutants in New South Wales</i> . January 2017.
NSW EPA (2000). <i>NSW Industrial Noise Policy (2000)</i> , NSW Environmental Protection Agency. January 2000.
Maunsell McIntyre (2001). <i>Clyde Transfer Terminal Environmental Impact Statement</i> , Maunsell McIntyre Pty Ltd. August 2001
Epic Environmental (2021). <i>2021 Independent Environmental Audit Report - Clyde Waste Transfer Terminal</i> . February 2022
Veolia (2021). <i>Clyde Transfer Terminal Annual Environmental Monitoring Report 2020-2021</i> . Veolia. March 2021.

Appendix A - Site Location Plan

Clyde Transfer Terminal – Site Layout Plan



Appendix B - Conditions of Development Consent Compliance Table

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Condition Ref	Requirement (Exact Wording)	Audit Findings	Evidence Reviewed	Independent IEA Findings	Unique Identification
	General Conditions				
1	<p>Development shall be carried out in accordance with:</p> <p>(a) DA No. 205-08-01;</p> <p>(b) the EIS prepared for the "Clyde Transfer Terminal" by Maunsell McIntyre Pty Ltd, dated 14 August 2001;</p> <p>(c) the Supplementary EIS prepared for the "Clyde Transfer Terminal" by Maunsell McIntyre Pty Ltd, dated 18 December 2001;</p> <p>(d) all additional information supplied by the Applicant or the Applicant's consultants or subconsultants to the Department or integrated approval bodies pertaining to the development, including:</p> <ul style="list-style-type: none"> · Noise Mitigation Details provided to the EPA by Vipac Engineers & Scientists Ltd by facsimile dated 15 February 2002; · Stormwater Outlet Design, dated 18 February 2002, provided to the Department by Maunsell Australia Pty Ltd; · Information on traffic, odour and noise, dated 9 April 2002, provided to the independent assessor Mr John Court by Maunsell Australia Pty Ltd; · Information on the construction EMP, stormwater drainage, site contamination, landscaping and rehabilitation of Duck River, and the property boundary, dated 10 April 2002, provided to Waterways Authority by Maunsell Australia Pty Ltd; · Information on odour management, Duck River cycleway, and traffic management, dated 10 April 2002, provided to the independent assessor Mr John Court by Maunsell Australia Pty Ltd; · Information on the property boundary, dated 17 April 2002, provided to Waterways Authority by Maunsell Australia Pty Ltd; · Information on modifications to pipeline, pipe outlet, scour protection works, detention basin, weighbridge and noise barrier, dated 19 April 2002, provided to Waterways Authority by Maunsell Australia Pty Ltd; · Information on a proposed community consultative committee and possible community enhancement projects, dated 4 June 2002, provided to the Department by the Applicant; · Information on Parramatta Road plans and odour control procedure, dated 12 June 2002, provided to the Department by Maunsell Australia Pty Ltd; and · Information on odour management, dated 4 July 2002, provided to the Department by the Applicant <p>(e) Modification application MOD-133-11-2006, accompanied by Statement of Environmental Effects Modification to the Terminal Building Forced Ventilation Sydney Clyde Waste Transfer Station, prepared by Environ and dated October 2006, the Odour Mitigation Study Clyde Waste Transfer Terminal Addendum to Final Report, prepared by the Odour Unit and dated July 2006, and Veolia Environmental Services' letter (and attachments) to the Department of Planning dated 15 February 2007,</p> <p>(f) modification application DA-205-08-01-MOD-2 and;</p> <p>(g) modification application DA-205-08-01-MOD-3 and accompanying letter dated 14 December 2009</p> <p>(h) modification application DA-05-08-01-MOD-4 and accompanying Environmental Assessment letter prepared by Veolia Environmental Services (Australia) Pty Ltd and dated 20 January 2014.</p> <p>(i) modification application DA-05-08-01-MOD-5 and accompanying Environmental Assessment prepared by SG Haddad Advisory</p> 	C	1. The findings of this IEA	The auditor did not identify any major issues that would indicate non-compliance with this condition.	
2	<p>In the event of any inconsistency between;</p> <p>(a) the conditions of this consent and any document listed from condition 1(a) to 1(g) inclusive, the conditions of this consent shall prevail to the extent of the inconsistency; and</p> <p>(b) any document listed from condition 1(a) to 1(g) inclusive, the most recent document shall prevail to the extent of the inconsistency</p>	NT	N/A	This is a note only not auditable	
2A	<p>The Proponent shall comply with any reasonable requirements of the Planning Secretary arising from the Department's assessment of;</p> <p>(a) any reports, plans, programs, strategies or correspondence that are submitted in accordance with the conditions of this approval; and</p> <p>(b) the implementation of any actions or measures contained in these reports, plans, programs, strategies or correspondence.</p>	C	<p>1. Letter between DPIE and Veolia</p> <p>2. Evidence of submission of the OEMP</p>	During the IEA the auditor observed correspondence between the DPIE and Veolia regarding the requirement to align the IEA scope with the approved OEMP and sub-plans. The IEA observed evidence that Veolia was complying with the request through resubmission of the updated OEMP and sub-plans.	
2B	The Proponent shall prepare revisions of any strategies, plans or programs required under this approval if directed to do so by the Planning Secretary. Such revisions shall be prepared to the satisfaction of, and within a timeframe approved by, the Planning Secretary	C	<p>1. Letter between DPIE and Veolia</p> <p>2. Evidence of submission of the OEMP</p>	Evidence of updated OEMP and sub-plans being provided to the DPIE was observed during the IEA.	
	Compliance				
3	It shall be the ultimate responsibility of the Applicant to ensure compliance with these conditions	C	The findings of this IEA	The auditor did not identify any major issues that would indicate non-compliance with this condition.	

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Condition Ref	Requirement (Exact Wording)	Audit Findings	Evidence Reviewed	Independent IEA Findings	Unique Identification
4	The conditions do not relieve the Applicant of the obligation to obtain all other approvals and licenses from all relevant authorities required under any other Act.	NT	N/A	This is a note only not auditable	
5	The Applicant shall comply or ensure compliance with all the requirements of the Director-General in respect of the implementation of any measures arising from these Conditions.	C	1. The findings of this IEA	The auditor did not identify any major issues that would indicate non-compliance with this condition.	
6	The Applicant must bring to the attention of the Director-General any matter that may require further investigation, or the issuing of instructions from the Director-General, to enable compliance with these Conditions. The Applicant shall comply or ensure compliance with any instruction issued by the Director-General to enable compliance with these Conditions.	NT	N/A	Veolia advised there have been no issues identified by the Director General during the IEA period. The auditor was unable to be verify this during the IEA and therefore this is NT.	
7	Where the results of any monitoring demonstrate an exceedance of a limit in this consent, the Applicant shall provide, within 30 days of the monitoring, the monitoring results to the Director-General and Auburn Council stating: (a) The reason for the exceedance; (b) Action taken to ensure the limit is not exceeded in the future; (c) Proposed action to ensure the limit is not exceeded in the future; (d) Timetable for implementing the proposed action in (c); and (e) Results of additional monitoring which has been conducted within 7 days of the action taken in (b) and (c) above, to demonstrate compliance with the limit.	C	1. Odour reports 2. Noise monitoring data 3. AEMR	Based on a review of monitoring results no exceedances were identified during the IEA period.	
Waste Volumes					
8	No waste shall be received at the development except waste to be transported by rail from Clyde to the Crisps Creek Intermodal Facility for disposal or treatment at Woodlawn.	C	1. Waste Records 2021	It was confirmed during the IEA all waste received on the site is transported to Woodlawn. The exception to this is small quantities of non-conforming waste (gas bottles or large steel) which is sent to other facilities.	
9	Condition was deleted - Mod 4				
10	The Proponent must ensure that no more than 600,000 tonnes per annum of waste is received at the development in any calendar year.	C	1. Annual Environmental Management Report - Clyde Transfer Terminal 2020 - 2021	Waste records for the IEA period were observed during the IEA and confirmed 438,258 tonnes of waste was processed through CTT.	
10A	The Proponent must ensure that no more than 500 tonnes of waste is present on the terminal floor at any one time, except under the limited circumstances detailed in the Operational Contingency Management Plan for the development, required by condition 54A and approved by the Development Secretary.	C	1. Site inspection	At the time of inspection less than 500 T was observed on the terminal floor. Site personnel interviewed stated the terminal building was cleared of waste at the end of each day. Video evidence observed during the site inspection demonstrated the waste floor is cleared at the end of each day.	
Fit and Proper Person					
11	The applicant must, in the opinion of the EPA, be a fit and proper person to hold a licence under the Protection of the Environment Operations Act 1997, having regard to the matters in s.83 of that Act.	C	1. Environment Protection Licence (EPL)	The EPA has issued an EPL thereby deeming the Licensee a fit and proper person to hold a licence. No regulatory action were noted in the reporting period.	
Obligation to Prevent and Minimise Harm to the Environment					
12	The Applicant is to take all practicable measures to prevent and minimise harm to the environment as a result of the Development.	C	1. Inspection forms completed and online system (Sphera).	A during the IEA site inspection no apparent unauthorised environmental harm was observed. Furthermore records for the weekly and half yearly inspection undertaken by Veolia's personnel were observed during the IEA and included the sufficient checks for actual/potential environmental harm.	

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Condition Ref	Requirement (Exact Wording)	Audit Findings	Evidence Reviewed	Independent IEA Findings	Unique Identification
13	If at any time the Director-General is made aware of the occurrence of any impact from the project that poses serious environmental or amenity concerns, and is due to the failure of measures required by these Conditions or those measures identified in the documentation referred to in Condition 1 to ameliorate the impact, the Director-General may request the Applicant to cease the activities causing the impact.	C	1. Observed the incident management system	No regulatory actions were noted during the IEA period. Veolia stated that no issues have been identified by the Director-General during the IEA period (however this was unable to be verified during the IEA). The online incident system (Sphere) was reviewed during the IEA and two minor incidents occurred that did not result in environmental harm were also noted.	
14	The Applicant may recommence the activities that were ceased, upon written advice by the Director-General that those concerns have been satisfactorily addressed.	NT	N/A	Condition was not triggered within the IEA period.	
Date of Commencement					
15	The date of commencement shall be the date that the Applicant determines to proceed with the development. The Applicant must provide the date of commencement in writing to the Director-General before commencement of the development.	NT	N/A	Condition was not triggered within the IEA period.	
Pre-Construction Compliance Report					
16	At least two weeks prior to commencement of construction (or within such period as otherwise agreed in writing by the Director-General), the Applicant shall submit to the Director-General a report detailing the level of compliance with each Condition of this Consent that relates to pre-construction activities. The report shall include, but not necessarily be limited to: (a) the identification of each relevant Condition (b) the details of any study or report required by the relevant Conditions (c) the level of compliance with each relevant Condition (d) the reasons for any non-compliance (e) any action taken or proposed to make good any non-compliance, and (f) any action taken or proposed to implement the recommendations made in any study or report required by the relevant Conditions	NT	N/A	Condition was not triggered within the IEA period.	
Pre-Operation Compliance Report					
17	At least one month prior to the receipt of containerised waste at the premises (or within such period as otherwise agreed in writing by the Director-General), the Applicant shall submit to the Director-General a report detailing the level of compliance with each Condition of this Consent that relates to pre-operation activities. The report shall include, but not necessarily be limited to: (a) identification of each relevant Condition (b) the details of any study or report required by the relevant Conditions (c) the level of compliance with each relevant Condition (d) the reasons for any non-compliance (e) any action taken or proposed to make good any non-compliance, and (f) any action taken or proposed to implement the recommendations made in any study or report required by the relevant Conditions	NT	N/A	Condition was not triggered within the IEA period.	
Dispute Resolution					
18	The Applicant shall endeavour to resolve any dispute arising out of the implementation of these Conditions.	NT	N/A	Condition was not triggered within the IEA period.	

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Condition Ref	Requirement (Exact Wording)	Audit Findings	Evidence Reviewed	Independent IEA Findings	Unique Identification
19	For any unresolved dispute arising out of the implementation of these Conditions between the Applicant and a public authority, company or person (but excluding any dispute between the Applicant and its contractors and/or subcontractors engaged in the construction or operation of the development), in the first instance either party can refer the matter to the Director-General for resolution and, if not resolved, to the Minister. The Minister's determination of the disagreement shall be final and binding on all parties.	NT	N/A	Condition was not triggered within the IEA period.	
Monitoring Records					
20	The results of any monitoring required to be conducted by the Conditions of this Consent or a licence under the Protection of the Environment Operations Act 1997, in relation to the development, must be recorded and retained as specified in this Consent.	C	1. Odour Audit XXXVII 2. Annual Truck Noise Measurements Report 15	All monitoring records were observed to be maintained on Veolia's internal drive and were observed for 2020 - 2021.	
21	All records required to be kept by this Consent or an environment protection licence must be: (a) in a legible form, or in a form that can readily be reduced to a legible form; (b) kept for at least 4 years after the monitoring or event to which they relate took place; and (c) provided in a legible form to the Planning Secretary or any authorised officer of the EPA as soon as practicable after request.	C	1. Veolia CTT website 2. 2017 IEA 3. 2017 Odour Audit.	All data from 2017 was available on Veolia's internal drives and observed during the IEA.	
22	The following records must be kept in respect of any samples required to be collected: (a) the date(s) on which the sample was taken; (b) the time(s) at which the sample was collected; (c) the point at which the sample was taken; and (d) the name of the person who collected the sample.	C	1. Odour Audit XXXVII 2. Annual Truck Noise Measurements Report 15	Odour monitoring and truck noise measurement reports reviewed during the IEA included the required records.	
GENERAL ENVIRONMENTAL MANAGEMENT					
Site Contamination					
23	The applicant shall obtain an environmental report prepared by a site auditor accredited under the Contaminated Land Management Act 1997 to determine the nature and extent of contamination at the site and any investigation and/or remediation necessary before the land is suitable for commercial/industrial use. Prior to construction the Applicant shall obtain written endorsement from the site auditor for the following aspects of the Site Contamination Management Plan: (a) A plan to manage the disturbance of contaminated soil in a manner that protects sub-surface waters from contamination (b) A plan to manage dust during the construction and operational stages in a manner that protects the health of on-site and off- site personnel.	NT	N/A	Condition was not triggered within the IEA period.	
24	Prior to completion of construction, any amelioration measures required to enable a site audit statement to be issued shall be implemented.	NT	N/A	Condition was not triggered within the IEA period.	
Environmental Management Plan (EMP) (Construction Stage)					
25	The Applicant shall prepare an EMP (Construction Stage) which is specific to the development.	NT	N/A	Condition was not triggered within the IEA period.	
25A	Prior to commencement of construction of the odour control system subject to MOD-133-11-2006, the Applicant shall prepare and obtain approval from the Planning Secretary for a Construction Environmental Management Plan (CEMP) specific to such works. The CEMP, to be submitted to the Planning Secretary and the EPA, shall include (but not necessarily be limited to) measures to be undertaken to minimise environmental impacts during construction with particular emphasis on measures for mitigating odour, dust, noise and traffic impacts on surrounding land uses. The CEMP shall provide details of how the environmental performance of the remediation works will be monitored, what actions will be taken to address identified adverse environmental impacts, and how the relevant requirements of conditions 26 to 38 shall be addressed. The CEMP shall reflect restrictions to construction hours as follows; Monday to Friday from 7am to 6pm, and Saturdays from 8am to 5pm, with no construction work on Sundays and Public Holidays. The CEMP shall be implemented during construction.	NT	N/A	Condition was not triggered within the IEA period.	

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26	The EMP (Construction Stage) shall be prepared in accordance with the Conditions of this Consent, all relevant Acts and Regulations and accepted best practice management procedures.	NT	N/A	Condition was not triggered within the IEA period.	
27	The Applicant must not commence any works until the EMP (Construction Stage) has been completed and submitted to the Director-General.	NT	N/A	Condition was not triggered within the IEA period.	
28	The Applicant shall certify the EMP (Construction Stage) as being in accordance with the Conditions of Consent prior to submitting it to the Director-General.	NT	N/A	Condition was not triggered within the IEA period.	
29	The EMP (Construction Stage) shall be made publicly available.	NT	N/A	Condition was not triggered within the IEA period.	
30	The EMP (Construction Stage) shall include, but is not necessarily limited to, the following plans: (a) Soil and Water Management Plan (b) Construction Noise Management Plan (c) Dust Management Plan (d) Construction Waste Management Plan (e) Site Contamination Management Plan (f) Landscaping Plan	NT	N/A	Condition was not triggered within the IEA period.	
31	The Applicant shall address the elements outlined in Attachment 1 of this Consent when preparing the EMP (Construction Stage).	NT	N/A	Condition was not triggered within the IEA period.	
32	All site personnel (including contractors and subcontractors) during the construction stage must be inducted and trained to ensure compliance with the EMP (Construction Stage).	NT	N/A	Condition was not triggered within the IEA period.	
33	The Soil and Water Management Plan (SWMP) must describe the measures that will be employed to minimise soil erosion and the discharge of sediment and other pollutants to lands and/or waters during construction activities. The SWMP must be prepared in accordance with the requirements for such plans outlined in Managing Urban Stormwater: Soils and Construction (available from the Department of Housing).	NT	N/A	Condition was not triggered within the IEA period.	
34	The Construction Noise Management Plan must address, but is not necessarily limited to, the following issues: (a) compliance standards (b) community consultation (c) complaints handling monitoring/system (d) site contact person to follow up complaints (e) mitigation measures, including details of any noise attenuation measures (f) the design and operation of the proposed mitigation methods demonstrating best practice (g) construction times (h) contingency measures where noise complaints are received (i) monitoring methods and programs.	NT	N/A	Condition was not triggered within the IEA period.	
35	The Dust Management Plan must include, but not necessarily be limited to, control strategies to achieve compliance with dust emission limits in this Consent and any environment protection licence.	NT	N/A	Condition was not triggered within the IEA period.	
36	The Construction Waste Management Plan must include, but not necessarily be limited to, strategies to ensure any waste generated during the construction stage is recycled, reused or disposed of in a lawful manner.	NT	N/A	Condition was not triggered within the IEA period.	

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37	The Site Contamination Management Plan must include, but not necessarily be limited to, the following issues that apply to construction stage activities: (a) A plan to manage the disturbance of contaminated soil in a manner that protects sub-surface waters from contamination (b) A plan to manage dust in a manner that protects the health of on-site and off-site personnel.	NT	N/A	Condition was not triggered within the IEA period.	
38	The Landscaping Plan must include, but not necessarily be limited to: (a) the recommendations of the Visual Assessment Study in the EIS for landscaping and planting of native species, and (b) commitments by the Applicant for an appropriate financial or in-kind contribution towards landscaping the Parramatta Road frontage to soften and screen the access point as viewed from Parramatta Road.	NT	N/A	Condition was not triggered within the IEA period.	
Environmental Management Plan (EMP) (Operation Stage)					
39	The Applicant shall prepare an EMP (Operation Stage) which is specific to the development.	C	Operational Environmental Management Plan for Clyde Transfer Terminal (OEMP) - 2021	Previous OEMP (2010) still the current one as the DPIE has not approved the 2021 OEMP. Comments received from the DPIE on the 2021 version were observed during the IEA and had been addressed by Veolia.	
40	The EMP (Operation Stage) shall be prepared in accordance with the Conditions of this Consent, all relevant Acts and Regulations and accepted best practice management procedures.	C	1. OEMP - 2021	The 2021 OEMP was reviewed as part of the IEA, the auditor did not identify any inconsistencies with the Conditions of this Consent, relevant Acts and Regulations and accepted best practice management procedures.	
41	The EMP (Operation Stage) shall include, but is not necessarily limited to, the following plans: (a) Waste Management Plan (b) Odour Management Plan (c) Dust Management Plan (d) Traffic Management Plan (e) Vermin and Pest Control Plan (f) Stormwater Management Plan (g) Site Contamination Management Plan (h) Incident Response Plan (i) Noise Management Plan (j) Operational Contingency Management Plan	C	1. OEMP - 2021 2. OEMP Sub-Plans - 2021	The scope of the 2021 OEMP and item sub-plans covered the required content listed in this condition.	
42	The Applicant shall address the elements outlined in Attachment 1 of this Consent when preparing the EMP (Operation Stage).	C	1. OEMP - 2021 2. OEMP Sub-Plans - 2021	The 2021 OEMP addresses the relevant elements in Attachment 1 of the consent.	
43	The Applicant must not accept any uncontainerised waste at the premises until the EMP (Operation Stage) has been approved by the Director-General.	NT	N/A	Condition was not triggered within the IEA period.	
44	The Applicant shall certify the EMP (Operation Stage) as being in accordance with the Conditions of Consent prior to seeking approval of the Director-General.	NT	N/A	This IEA included a review of the 2021 OEMP and its sub-plans to certify the documents are in accordance with the consent.	

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45	All site personnel (including contractors and subcontractors) during the operational stage must be inducted and trained to ensure compliance with the approved EMP (Operation Stage).	C	1. Induction 2. Training records	Training records for inducted staff members were provided and reviewed and demonstrated a robust training process at Veolia.	

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46	The approved EMP (Operation Stage) shall be made publicly available on request to the Applicant.	C	1. Veolia CTT website	The OEMP (2010) was observed to be available on the Veolia website.	
47	<p>The Waste Management Plan must address, but is not necessarily limited to, the following issues:</p> <p>(a) Procedures for inspecting and recording each load of uncontainerised waste received at the terminal and for separating and disposing of any component of the waste that is not permitted to be accepted</p> <p>(b) Priority waste handling given to the most offensive wastes, otherwise "first in/first out" waste handling</p> <p>(c) Procedures for cleaning vehicles before they leave the premises in a manner that prevents the tracking of waste from the premises</p> <p>(d) An education program for all drivers of waste vehicles using the site, about waste types permitted to be received at the premises and the need to ensure their vehicle does not track waste from the premises</p> <p>(e) The inclusion of conditions in contracts with waste transporters addressing acceptable waste types and punitive measures for non-compliances</p> <p>(f) An enforcement program to be maintained for the duration of the development which includes the imposition of punitive measures for delivering unacceptable waste types</p> <p>(g) Procedures for minimising wind blown litter from leaving the premises and for regular patrols of surrounding areas to collect any litter that has been carried from the premises</p> <p>(h) Procedures for preventing washdown waters and any other liquid that has been in contact with waste from entering the stormwater system</p> <p>(i) An operational contingency plan to be implemented in the event of equipment failure, industrial action or other situation that prevents the containerisation of waste that has been in the terminal building in excess of 18 hours</p> <p>(j) Fire management procedures including the management of fire water in a manner that will not pollute waters.</p>	C	1. Waste Management Plan (WMP) - 2021	The WMP was reviewed and addressed the requirements of the consent.	

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Condition Ref	Requirement (Exact Wording)	Audit Findings	Evidence Reviewed	Independent IEA Findings	Unique Identification
48	<p>The Odour Management Plan must address, but is not necessarily limited to, the following issues:</p> <p>(a) Procedures for the management of waste at the premises at all times to minimise the generation of odours.</p> <p>(b) Protocols for the operation of the odour control mechanisms for the terminal building, including the forced air extraction and odour filtration system, to minimise the risk of any adverse impact on surrounding commercial and residential areas.</p> <p>(c) Procedures for the maintenance and repair of the forced air extraction and odour filtration system on the terminal building, including the replacement of the dust filters and odour adsorption material</p> <p>(d) Criteria to be utilised to determine when the replacement of dust filters and odour adsorption material for the terminal building is to be carried out.</p> <p>(e) An emission monitoring program designed to determine the odour generation rates from the waste in the terminal building and to establish the capture and removal efficiency of the forced air extraction and odour filtration system and appropriate equipment maintenance schedules for replacement of dust filters and odour adsorption material. The program is to include odour emission monitoring using dynamic olfactometry in such a way as to allow determination of the performance of the odour control system with and without each component of the forced air extraction and odour filtration system in operation.</p> <p>(f) An odour audit program which provides for a comprehensive odour audit of the premises and nearby commercial and residential areas, by an independent, appropriately qualified and experienced person, to be conducted 3-monthly for the initial 24 months of receiving uncontainerised waste at the terminal, and 6-monthly thereafter, unless otherwise approved in writing by the Director- General.</p> <p>(g) An operational contingency plan to be initiated in the event of equipment failure, industrial action or any other situation that prevents the containerisation of any waste that has been in the terminal building in excess of 18 hours. Such a plan shall include suspending the acceptance of further uncontainerised waste at the premises.</p> <p>(h) A testing program designed to determine appropriate maintenance schedules for replacement of odour adsorption material in the pressure relief vents of the waste containers.</p> <p>(i) Procedures for the maintenance and repair of the odour adsorption and pressure relief vents of the waste containers, including the replacement of the odour adsorption material; and</p> <p>(j) A community consultation program on odour. The community consultation program may include a community survey, to be developed in conjunction with the community consultative committee.</p>	C	1. Air Quality Management Plan (AQMP) - 2021	<p>The revised OEMP sub-plans have combined the odour and dust management plan (Condition 48 and 49, respectively) into a single management titled the AQMP.</p> <p>The AQMP reviewed during the IEA, addressed the requirements of this condition.</p>	
49	<p>The Dust Management Plan shall include but not necessarily limited to, control strategies to achieve compliance with any dust emission limits in this consent and any applicable environment protection license. The Dust Management Plan shall adopt the recommendations made by Turnkey Environmental Services Pty Ltd (dated 13 Feb 2006) and provided in Appendix D of the Statement of Environmental Effects Modification to the Termination Building Forced Ventilation System Clyde Waste Transfer Station (Environ, Oct 2006) in relation to the dust suppression spray system at the terminal. The Dust Management Plan shall provide for the monitoring of the performance of the dust suppression system and for improving its performance as it may be necessary. Following the receipt of any dust related complaints, the Planning Secretary may require the Applicant to undertake further investigations, monitoring or implement measures aimed to mitigate identified dust impacts on residential areas associated with the operation of the terminal</p>	C	1. AQMP - 2021	<p>The revised OEMP sub-plans have combined the odour and dust management plan (Condition 48 and 49, respectively) into a single management titled the AQMP.</p> <p>The AQMP reviewed during the IEA, addressed the requirements of this condition.</p>	

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50	<p>The Traffic Management Plan must address, but is not necessarily limited to, the following issues:</p> <p>(a) An education program for all drivers and owners of waste vehicles using the site, about the "left turn only" restrictions on entering and leaving the premises via Parramatta Road</p> <p>(b) A monitoring and recording program to identify and record any waste vehicle and its driver that breaches the "left turn only" restriction upon entering or leaving the premises via Parramatta Road.</p> <p>(c) An education program for all drivers and owners of waste vehicles using the site, about the waste transport routes permitted to be used in the vicinity of the development</p> <p>(d) A monitoring and recording program to identify and record any waste vehicle and its driver that breaches the permitted transport routes</p> <p>(e) An enforcement program including the imposition of identified punitive measures against any driver or vehicle owner whenever the above restrictions are breached</p> <p>(f) Contracts with waste transporters to include conditions addressing entry and exit restrictions and permissible waste transport routes and punitive measures for non-compliances.</p> <p>(g) Measures to minimise trucks and other heavy vehicles from entering or exiting the premises between the following hours: 10pm and 5am Mondays to Saturdays; 10pm and 7am Sundays and public holidays.</p>	NC	1. Traffic Management Plan (TMP) - TMP	<p>The TMP was reviewed during the IEA and addressed the condition, with the exception of:</p> <p>(b) <i>A monitoring and recording program to identify and record any waste vehicle and its driver that breaches the "left turn only" restriction upon entering or leaving the premises via Parramatta Road .</i></p> <p>(e) <i>An enforcement program including the imposition of identified punitive measures against any driver or vehicle owner whenever the above restrictions are breached.</i></p> <p>In terms of (b) the TMP only provides for sporadic spot checks of trucks entering or leaving the CTT. The auditor understands from the site inspection, a continuous monitoring for non-complying trucks would be impossible for Veolia, as the weighbridge does not have a proper line of site to the intersection with Parramatta Road and the 'legal' right turn from Parramatta Road is utilised by trucks that are associated with the neighbouring industrial tenancies. Furthermore, it is understood that Rawsons Road is being closed by the owner and this will increase the number of trucks going into the CTT access road from Parramatta Road.</p> <p>In terms of (e) the auditor understands punitive measures would be difficult for a commercial business to enforce. Veolia stated they prefer to re-train offending parties. Therefore it is recommended a modification to the consent to remove the requirement to enforce punitive damages.</p>	CTT-DA-NC-01
51	<p>The Vermin and Pest Control Plan must address, but is not necessarily limited to, the following issues:</p> <p>(a) Removing all waste from the tipping areas at the end of each day</p> <p>(b) Cleaning up all waste tipping and handling areas at the end of each day</p> <p>(c) Regular cleaning of catch drains and drainage sumps</p> <p>(d) Minimising onsite waste storage and handling</p> <p>(e) Maintaining any bird deterrent measures such as hanging wires</p> <p>(f) Routine inspection and action for potential vector habitats</p> <p>(g) Using commercial vector control specialists</p> <p>(h) Conducting routine litter patrols to collect trash on site, around the perimeter, on immediately adjacent properties and on approach roads.</p>	C	1. Vermin and Pest Control Plan (VPCP) - 2021	The VPCP was reviewed as part of the IEA and addressed the requirements of the condition.	
52	The Stormwater Management Plan must describe the post construction measures to be employed to operate and maintain the stormwater controls at the premises in a manner that minimises the pollution of waters.	C	1. Stormwater Management Plan (SMP) - 2021	The SMP was reviewed as part of the IEA and addressed the requirements of the condition.	
53	The Site Contamination Management Plan must include any actions recommended in the environmental report by the site auditor that apply to operation stage activities.	C	1. Site Contamination Management Plan (SCMP) - 2021	The SCMP was reviewed as part of the IEA and addressed the requirements of the condition.	

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54	<p>The Noise Management Plan shall be drafted in consultation with the rail operator for operation of the rail siding adjacent to the waste packaging terminal for the rail haulage services for Collex. The plan is to be submitted to Auburn Council. The plan must address the objective of mitigating operational rail noise from operations directly attributable to the loading and unloading of containers and associated rail operation on the siding adjacent to the Collex terminal, relating to the movement of containers from the Collex packing terminal. The plan must also identify reasonable noise mitigation strategies:</p> <p>a) Upgrade to hardstand areas utilised for loading and unloading of trains and rail track upgrade where feasible; b) Resurfacing of hardstand area with appropriate noise mitigation materials; c) Track repair and realignment where feasible and appropriate to minimise forklift travel having regard for other rail operations and heritage issues; d) Container management protocols to minimise movement and handling of containers with an emphasis on noise mitigation; e) Identification and utilisation of forklifts to minimise noise impacts and implement measures to minimise use of reversing alarms at night; f) Establishment of a noise complaints procedure; g) Investigating the scheduling of trains outside critical hours subject to metropolitan curfew, Rail Infrastructure Corporation slot management and rail operational considerations; h) Ongoing community consultation; and i) Employee education in noise mitigation practices.</p>	C	Noise Management Plan (NMP) - 2021	<p>The condition requires the NMP to be developed in consultation with the rail operator and the Council. The 2010 NMP was reviewed and provided to the Council and rail operator in 2010.</p> <p>No evidence of the draft NMP being provided to Pacific National or Cumberland Council was observed during the IEA. The NMP was reviewed as part of the IEA and addressed the requirements of the condition.</p>	CTT-DA-OFI-01
54A	<p>Prior to the commencement of expanded operations under DA No. 205-08-01 MOD 5, the Proponent must prepare an Operational Contingency Management Plan (OCMP) to the satisfaction of the Planning Secretary. The OCMP must form part of the EMP (Operation) required by condition 41. The OCMP must:</p> <p>(a) be prepared by a suitably qualified and experience person(s); (b) be prepared in consultation with the EPA; (c) detail the exception circumstances when the amount of waste in the terminal building would exceed 500 tonnes at any one time (d) describe the measures in place to minimise the number of instances of these exceedances; (e) identify all potential impacts arising from these instances; (f) characterise these impacts, such as effects, duration, receptors, level of impact; (g) detail appropriate mitigation measures; (h) describe the monitoring of potential environmental impacts during exceptional circumstances; and (i) describe reporting to the appropriate regulatory authorities</p>	C	WMP - 2021 Business Continuity Plan	The operational contingency management plan were incorporated into the WMP (s4.5.5) and the business continuity plan addressed the requirements of this condition.	
54B	<p>The Proponent must</p> <p>(a) not commence expanded operations until the OCMP required by condition 54A is approved by the Planning Secretary; and (b) implement the most recent version of the OCMP approved by the Planning Secretary for the duration of the development.</p>	C	1. WMP - 2021	The WMP formed part of the scope of the IEA and Veolia demonstrated sufficient level of implementation during the audit.	

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Environmental Management Representative (EMR)					
55	<p>The Applicant shall employ or contract a suitably qualified Environmental Management Representative (EMR) throughout the duration of the development. The EMR shall:</p> <p>(a) be the principle person responsible for overseeing environmental management of the development and supervision of environmental services</p> <p>(b) have the authority to stop work if an adverse impact on the environment has occurred or is likely to occur</p> <p>(c) be responsible for the certification of all environmental management plans and procedures</p> <p>(d) be responsible for considering and advising on matters specified in the Conditions of Consent and compliance with such matters</p> <p>(e) oversee the receipt of, and response to, complaints about the environmental performance of the development</p> <p>(f) be present on-site during any critical construction or operational activity as defined in the relevant Environmental Management Plan</p> <p>(g) be a member of the Community Consultative Committee for the development</p>	C	<p>1. DPIE approval of EMR dated 21/12/18 &</p> <p>2. Position Description for the Operations Project Manager</p>	<p>DPIE approval for the nominated EMR was provided in 2018.</p> <p>The Position Description for the Operations Project Manager (nominated as EMR) includes these responsibilities.</p>	
Environmental Monitoring Program					
56	<p>The Applicant shall prepare and implement a detailed Environmental Monitoring Program for the proposed development. The program shall include, but is not necessarily limited to, all the monitoring required by this Consent, the environment protection licence, the EMP (Construction Stage) and the EMP (Operation Stage) for the development. The program must:</p> <p>(a) Identify the environmental issues to be monitored</p> <p>(b) For each issue, indicate whether its monitoring is required by this Consent, the environment protection licence, the EMP (Construction Stage), the EMP (Operation Stage), or by another instrument</p> <p>(c) Set standards and performance measures for each issue</p> <p>(d) Describe in detail how each issue is to be monitored, who will conduct the monitoring, how often the monitoring will be conducted, and how the results of the monitoring will be recorded and reported to the Director-General and other relevant authorities</p> <p>(e) Indicate the actions taken and procedures to be followed if any non-compliance is detected.</p>	C	<p>1. Environmental Monitoring Program (EMP) - 2021</p> <p>2. WIS-8466-CTT - Exceedances Notification Work Instruction</p>	<p>The EMP was reviewed and it address the requirements of the condition. The Work Instruction is applied where an exceedance is identified.</p>	
57	<p>All monitoring required by this Consent must be:</p> <p>(a) conducted by suitably qualified persons approved by the Director-General</p> <p>(b) conducted in accordance with established standards and protocols</p> <p>(c) reported annually in the Annual Environmental Management Report.</p>	C	<p>1. Odour Audits (2020 - 2021)</p> <p>2. AEMR (2020 - 2021)</p> <p>3. Approval Letter from the Director-General (dated xxx)</p>	<p>All monitoring undertaken at the site is undertaken by personnel or contractors that are suitably qualified. The monitoring records for odour monitoring include detailed method statements that are consistent with Australian Standards (AS/NZS 4392.3:2001).</p> <p>Condition 57(a) also requires the persons undertaking the monitoring are approved by the Director-General. This written approval was provided during the IEA.</p>	

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58	The Applicant shall include a report on the Environmental Monitoring Program in the Annual Environmental Management Report. The report must: (a) summarise the results from the Environmental Monitoring Program over the previous year (b) analyse the results in relation to both past performance, and the relevant standards and performance measures of the development (c) identify any emerging trends in the data over the life of the development (d) include a copy of the detailed monitoring results as an attachment.	C	1. AEMR (2020 - 2021)	The AEMR was reviewed during the IEA and was determined to address the requirement of the condition	
Annual Environmental Management Report					
59	Between twelve and fourteen months after the issue date of an environment protection licence for the development, and annually thereafter for the duration of the development, the Applicant shall submit an Annual Environmental Management Report to the Director-General, the EPA and the Community Consultative Committee. The report shall be made available to the public on request to the Applicant. The report may be combined with the Annual Return required by the environment protection licence to be submitted to the EPA. The report must: (a) identify all the standards, performance measures, and statutory requirements the development is required to comply with (b) review the environmental performance of the development to determine whether it is complying with the standards, performance measures, and statutory requirements (c) identify each occasion during the previous year when the standards, performance measures, or statutory requirements have not been complied with (d) where any non-compliance is identified, describe the actions or measures taken to ensure compliance, who is responsible for carrying out the actions, and when the actions were (or will be) implemented (e) include a summary of any complaints made about the development, and indicate the actions taken to address the complaints (f) include a report on the Environmental Monitoring Program as specified in this Consent.	C	1. AEMR (2020 - 2021)	The AEMR was reviewed during the IEA and was determined to address the requirement of the condition	
Independent Environmental Audits					
60	Every year following the date of this consent, or at periods otherwise agreed to by the Director-General, and until such time as agreed to by the Director-General, the Applicant shall arrange for an independent audit of the environmental performance of the development. The audits shall: (a) be conducted pursuant to ISO 14010 – Guidelines and General Principles for Environmental Auditing, ISO 14011 – Procedures for Environmental Monitoring and any specifications of the Director-General; (b) be conducted by a suitably qualified independent person approved by the Director-General; (c) assess compliance with the requirements of this consent; (d) assess the implementation of the EMP (Construction) and EMP (Operation) and review the effectiveness of the environmental management of the development; and (e) be carried out at the Applicants' expense.	C	1. 2020 IEA (Epic Environmental)	The 2020 IEA prepared by Epic Environmental was reviewed as part of the IEA and addressed the requirements of this condition.	
Monitoring and audit results to be publicly available					
61	The results of all monitoring and auditing required by this Consent must be made publicly available at the same time they are submitted to the Director-General	C	1. Veolia CTT website	Monitoring records were available online at the time of audit.	
WASTE MANAGEMENT					
Waste Receipt and Removal					
62	The Applicant must not cause, permit or allow any waste generated outside the premises to be received at the premises unless permitted to do so by an environment protection licence.	C	IEA of the EPL	No evidence of non-compliance with this condition was observed during the IEA.	

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63	The Applicant must ensure that waste received at the premises is restricted to inert and solid waste as defined in Schedule 1, Part 3 of the Protection of the Environment Operations Act 1997 or is assessed as inert waste or solid waste following the technical assessment procedure outlined in Technical Appendix 1 of the Environmental Guidelines: Assessment, Classification and Management of Liquid and Non-Liquid Wastes (EPA, 1999).	C	1. Site Inspection 2. Records for incoming waste	<p>All the waste is brought under a contract. The weighbridge checks the waste type from the contractor. At the tipping floor, terminal personnel check waste is conformant.</p> <p>The site inspection demonstrated there were sufficient facilities available at the site to remove and dispose of non-conforming waste.</p> <p>It is noted the condition references guidelines that are redundant (i.e. <i>Environmental Guidelines: Assessment, Classification and Management of Liquid and Non-Liquid Wastes</i> (EPA, 1999)). This is because Schedule 1 of the <i>Protection of the Environment Operations Act 1997</i> has pre-classified general solid waste.</p>	CTT-DA-OFI-02
64	<p>No waste shall be removed from the premises except:</p> <p>(a) construction waste arising from activities during the construction stage of the development</p> <p>(b) waste in sealed shipping containers to be transported by rail for disposal at the Woodlawn Bioreactor</p> <p>(c) small quantities of waste not permitted by the EPL to be received at the terminal, that have been separated out from the incoming waste stream through a documented operational procedure of regular waste inspections and associated control measures: these wastes are to be disposed of to a lawful waste facility</p> <p>(d) waste generated from onsite activities such as plant maintenance and repairs, that is not suitable for acceptance at the Woodlawn Bioreactor: these wastes are to be disposed of to a lawful waste facility</p> <p>(e) wastewater generated onsite: these wastes are to be disposed of to sewer</p> <p>(f) leachate generated from the onsite management of waste: these wastes are to be disposed of to sewer or a lawful liquid waste treatment plant</p> <p>(g) recyclable materials generated from the onsite office: these wastes are to be directed to a suitable recycling facility.</p>	C	1. Site Inspection 2. Records for outgoing waste	No evidence of non-compliance with this condition was observed during the site inspection or the records reviewed	
65	The Applicant shall implement the approved Waste Management Plan to the satisfaction of the Director-General.	C	1. WMP - 2021	The WMP formed part of the scope of the IEA and Veolia demonstrated sufficient level of implementation.	
Asbestos Waste					
66	The Applicant will not accept asbestos at the premises. The Waste Management Plan must make provision for identification of asbestos in waste not knowingly received at the premises and for the proper and safe disposal of any asbestos so identified.	C	1. Site inspection, 2. Training records (asbestos training)	Training records were observed that demonstrated the site manager and leading hands were trained in asbestos identification. Posters noted during the site inspection showed there was communication to personnel to assist with the identification of asbestos.	
Waste Management and Record Keeping					

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67	Records shall be made and maintained of each load of waste entering the premises, including the identification of the vehicle, weight, nature and origin of the waste received, and whether the waste was received in pre-packaged shipping containers or for on- site containerisation.	C	1. Waste records for incoming waste 2. Site Inspection	The weighbridge system observed during the site inspection enabled the required records to be inputted into the system. Waste records for incoming waste were observed during the IEA and demonstrated these records were maintained for each load.	
68	Records shall be made and maintained of any waste leaving the premises by motor vehicle, including the identification of the vehicle, and the weight, classification and destination of the waste.	C	1. Waste records for outgoing waste 2. Site Inspection	The weighbridge system observed during the site inspection enabled the required records to be inputted into the system. Waste records for outgoing waste were observed during the IEA and demonstrated these records were maintained for each load.	
69	Records shall be made and maintained of all events involving the removal of any waste received at the premises which is not permitted to be accepted at the premises.	C	1. Waste records for outgoing waste	Records of non-compliant waste received at CTT and transported off-site were observed. This included gas bottles and steel waste.	
ODOUR MANAGEMENT					
70	<p>The Applicant shall install a forced ventilation system in the Terminal Building in accordance with MOD-133-11-2006, the design specified in the report Addendum to Final Report – Odour Mitigation Study – Clyde Waste Transfer Terminal – Collex Pty Ltd prepared by the Odour Unit Ltd and dated July 2006, and drawing N3630/100 tilted Clyde Transfer Terminal Roof and Gallery Level Proposed Ducting Layout Details prepared by Turnkey Environmental Systems Pty Ltd. The system shall include a single air exhaust stack to discharge all air from the waste receive and compaction/loading building, in accordance with the following specifications;</p> <p>Minimum Stack Height (meters above existing ground level) Minimum Stack Height above the top of the roof (meters) Minimum Stack Diameter (meters) Minimum Stack Exit Velocity (m/s) Minimum Stack Exit Volumetric Flowrate (m3/s) Location (X coordinate) Location (Y coordinate) 21 4 2.64 20 109.48 317145 6254129</p> <p>The six original fans drawing air from the building through the odour control system shall be replaced with six fans of at least 18kW capacity (each) as per MOD-133-11-2006. The forced air extraction system installed under MOD-133-11-2006 shall be capable of operating in a proper and efficient manner under continuous duty</p> <p>Any variations of the design and specifications indicated above resulting from the detailed design of the odour control system shall be approved by the Planning Secretary, in consultation with the EPA, prior to the commencement of construction. As part of such approval, the Planning Secretary may require the Applicant to provide information demonstrating that the final design will not result in increased impacts as those predicted in the documents referred to under condition 1(e)</p>	NT	N/A	Condition was not triggered within the IEA period.	
71	Construction of the Terminal Building force ventilation system in accordance with MOD-133-11-2006 shall be undertaken under continuous operation of the original forced ventilation system (as per design approved by the Planning Secretary in correspondence to Collex dated 5 January 2003). Forced ventilation in the Terminal Building, by the operation of the original system or the new system subject to MOD-133-11-2006, shall not be interrupted at any time during the period of transferring odour control systems, unless otherwise approved by the Planning Secretary following a written application for temporary stoppage of the ventilation system during that period. Such application shall provide details of stoppage time required, impacts predicted, and proposed mitigation measures and notification requirements. This condition does not apply at times when waste is not contained within the building.	NT	N/A	Condition was not triggered within the IEA period.	
72	Prior to commencement of construction of the works required under MOD-133-11-2006, the Applicant shall notify the Planning Secretary, Auburn Council, the EPA and the Community Consultative Committee in writing of the date of commencement of construction, details of the main construction activities and anticipated duration of construction and times of the main construction activities.	NT	N/A	Condition was not triggered within the IEA period.	

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73	The Applicant shall implement the approved Odour Management Plan to the satisfaction of the Director-General.	NT	N/A	Condition was not triggered within the IEA period.	
74	The Applicant must not cause or permit the emission of offensive odours from the premises, as defined under section 129 of the Protection of the Environment Operations Act 1997.	C	1. Site inspection 2. Complaint records 3. Weekly inspection records	No noticeable odour was noted outside of the terminal building at the time of the site inspection. The weekly inspection included an item for checking noticeable odour. No odour complaints have been received for the CTT during the IEA period. Complaints are recorded on hardcopy and then transferred to REVO. During the site inspection no discernible odour was noted at the following locations: 1. at Parramatta Road driveway entrance (north, upwind), 2. Berry St near Clyde station (west/ crosswind) or 3. neighbouring Clyde Railway Stabling yard, 144 Marsden Rd, Auburn (south, downwind).	
75	The Applicant shall continuously operate the forced ventilation system subject to MOD-133-11-2006 (and the original forced ventilation system until the system subject to MOD-133-11-2006 becomes operational) whenever waste is contained within the building, unless otherwise approved by the Planning Secretary. As part of such approval, the Planning Secretary may require the Applicant to carry out additional investigations and implement additional measures to mitigation any off-site impacts that may be anticipated or identified from such investigations	C	1. Hardcopy maintenance records for forced ventilation system	Maintenance records of the forced ventilation system were observed and demonstrated the system is functioning (undertaken by Independent Air Flow Services). During the site inspection it appeared the forced ventilation system was operational.	
76	Within three months of the commissioning of the forced ventilation system subject to MOD-133-11-2006, the Applicant shall conduct; (a) odour emission rate sampling and analysis from the single stack (conducted in accordance with Approved Methods for the Sampling and Analysis of Air Pollutants in NSW (EPA, January 2007); and (b) odour dispersion modelling for the stack odour discharge conducted in accordance with the Approved Methods for the Modelling and Assessment of Air Pollutants in NSW (EPA, August 2005) and the Technical Framework – Assessment and Management of Odour from Stationary Sources in NSW (EPA, November 2006).	NT	N/A	Condition was not triggered within the IEA period.	
77	The results of any odour performance testing and modelling conducted in accordance with the conditions of this consent, including those required under condition 77, shall be submitted to the Community Consultative Committee, the EPA, the Planning Secretary and shall be made publicly available, within eight weeks of the testing and modelling having been completed.	NT	N/A	Condition was not triggered within the IEA period.	
78	Following the review of the investigations required under condition 77, or any other odour related investigations and documentation required under this consent, the Planning Secretary in consultation with the EPA may require the Applicant to carry out additional investigations and implement additional measures to mitigate any identified off-site odour impacts.	NT	N/A	Condition was not triggered within the IEA period.	
79	The results of any odour performance testing conducted in accordance with the conditions of this Consent may be submitted to the Director-General together with a proposal to vary the continuous operation of the forced air extraction and odour filtration system. The proposal must be prepared in consultation with the Community Consultative Committee and the EPA. Any variation to the continuous operation of the forced air extraction and odour filtration system must not be carried out except with the written approval of the Director-General.	NT	N/A	Condition was not triggered within the IEA period.	

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Condition Ref	Requirement (Exact Wording)	Audit Findings	Evidence Reviewed	Independent IEA Findings	Unique Identification
80	All odour monitoring and management plans shall be made available to the public on request to the Applicant.	C	1. Veolia CTT website	All odour monitoring records were observed to be published online.	
81	Any containerised waste shall not be exposed to the atmosphere at the site, except via a pressure release mechanism and odour filtration system on a container maintained and operated in accordance with the Conditions of this Consent.	C	1. Site inspection	All waste containers observed during the site inspection were sealed and the pressure release was observed to be directed via a filtration system. Maintenance tags for selected containers observed during the site inspection appeared to be up to date.	
82	The design of the pressure release mechanism and odour filtration system on the waste containers shall be approved by the Director-General prior to the acceptance of any uncontainerised waste at the premises.	NT	N/A	Condition was not triggered within the IEA period.	
83	Any waste that has been packed into containers on the site, shall not be re-exposed to the atmosphere at the site, except via a pressure release mechanism and odour filtration system on a container maintained and operated in accordance with the Conditions of this Consent.	C	1. Site inspection	All waste containers observed during the site inspection were sealed and the pressure release was observed to be directed via a filtration system. Maintenance tags for selected containers observed during the site inspection appeared to be up to date.	
84	Deleted Condition (MOD-133-11-2006)	NT	N/A	Condition has been removed.	
85	Deleted Condition (MOD-133-11-2006)	NT	N/A	Condition has been removed.	
86	Deleted Condition (MOD-133-11-2006)	NT	N/A	Condition has been removed.	
87	The Applicant shall carry out monitoring the forced ventilation system subject to MOD-133-11-2006 (including air emissions monitoring or other) as may be required under any Environment Protection License. The monitoring results shall be reported in the Annual Environmental Management report required under condition 59.	C	1. Clyde Waste Transfer Terminal Odour Audit (XXXVI & XXXVII) 2. AEMR 2020 - 2021	AEMR for the IEA period was reviewed and demonstrated monitoring was undertaken in accordance with the EPL. It should be noted the EPL does not specify monitoring of the forced ventilation system. Maintenance records (prepared by Independent Air Flow Services in December 2021) were observed for the ventilation system.	CTT-DA-OFI-03

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Condition Ref	Requirement (Exact Wording)	Audit Findings	Evidence Reviewed	Independent IEA Findings	Unique Identification
88	Monitoring for the concentration of a pollutant emitted to the air must be done in accordance with: (a) any methodology which is required by or under the Protection of the Environment Operations Act 1997 to be used for the testing of the concentration of the pollutant; or (b) if no such requirement is imposed by or under the Protection of the Environment Operations Act 1997, any methodology which the general terms of approval or a condition of the licence (as the case may be) requires to be used for that testing; or (c) if no such requirement is imposed by or under the Protection of the Environment Operations Act 1997 or by the general terms of approval or a condition of the licence (as the case may be), any methodology approved in writing by the EPA for the purposes of that testing prior to the testing taking place.	C	1. Clyde Waste Transfer Terminal Odour Audit (XXXVI & XXXVII) 2. AEMR 2020 - 2021	Discussions with the odour monitoring consultant (The Odour Unit) have confirmed the methods adopted for ambient odour monitoring are consistent with the methods EPA utilises for its monitoring.	
89	Deleted Condition (MOD-133-11-2006)	NT	N/A	Condition has been removed.	
90	Prior to the installation of the forced ventilation system subject to MOD-133-11-2006, the Applicant shall provide to the EPA, manufacturer's performance guarantees, demonstrating to the satisfaction of the EPA that the equipment will comply with the design parameters specified in this consent and/or the Environmental Protection License.	NT	N/A	Condition has been removed.	

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Parameter	Units of measure	Averaging Period	Method ^a	Frequency
Wind Speed @ 10 m	m/s	1 hour	AM-2 & AM-4	Continuous
Wind Direction @ 10 m	°	1 hour	AM-2 & AM-4	Continuous
Sigma Tels @ 10 m	°	1 hour	AM-2 & AM-4	Continuous
Temperature @ 10 m	K	1 hour	AM-4	Continuous
Temperature @ 2 m	K	1 hour	AM-4	Continuous
Solar Radiation	W/m ²	1 hour	AM-4	Continuous
Rainfall	mm	24 hours	AM-4	Continuous
Evaporation	mm	24 hours	Note ^c	Continuous
Additional Requirements			Method^d	
Siting			AM-1 & AM-4	
Measurement			AM-2 & AM-4	

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Condition Ref	Requirement (Exact Wording)	Audit Findings	Evidence Reviewed	Independent IEA Findings	Unique Identification								
97	Deleted Condition (DA-205-08-01-MOD-3)	NT	N/A	Condition has been removed.									
	AIR MONITORING												
98	Detailed records of operating conditions inside the waste terminal building shall be made coincident with any monitoring for odour or dust required by Conditions of this Consent.	C	1. Odour Audit XXXVI	Operating conditions in the terminal building at the time of monitoring are documented within the odour audit report.									
	WATER MANAGEMENT												
99	Except as may be expressly provided by a licence under the Protection of the Environment Operations Act 1997 in relation of the development, section 120 of the Protection of the Environment Operations Act 1997 must be complied with and in connection with the carrying out of the development.	C	1. Site Inspection 2. SMP - 2021	No evidence of potential stormwater contamination was observed during the site inspection. The documented SMP was reflected and adequately implemented during the audit.									
100	Any water that comes into contact with waste at the premises must be directed to the leachate collection system.	C	1. Site Inspection 2. SMP - 2021	All leachate waste observed to be directed to a leachate collection system which was taken off-site as liquid waste (observed in the outgoing waste records).									
101	The approved Soil and Water Management Plan must be implemented prior to and for the duration of the construction stage of the development.	NT	N/A	Condition was not triggered within the IEA period.									
102	Stormwater pollution controls must be implemented prior to and for the duration of the operation of the development. The controls shall be consistent with the Stormwater Management Plan for the catchment. Where a Stormwater Management Plan has not yet been prepared the Scheme shall be consistent with the guidance contained in Managing Urban Stormwater: Council Handbook (available from the EPA). The controls shall incorporate minimum levels of treatment in the following table: <table><tr><th>Development component</th><th>Minimum level of stormwater treatment</th></tr><tr><td>Undeveloped sections of access road</td><td>Existing overland flow to Duck River</td></tr><tr><td>Roof water</td><td>On-site detention</td></tr><tr><td>Gatehouse and weighbridge area, carpark, access road and container loading area adjacent to the compaction units</td><td>First flush system, GPT, oil and grease separation, on-site detention</td></tr></table>	Development component	Minimum level of stormwater treatment	Undeveloped sections of access road	Existing overland flow to Duck River	Roof water	On-site detention	Gatehouse and weighbridge area, carpark, access road and container loading area adjacent to the compaction units	First flush system, GPT, oil and grease separation, on-site detention	C	1. Site Inspection 2. SMP - 2021	The SMP reviewed during the IEA addressed this condition. The site inspection was consistent with the SMP.	
Development component	Minimum level of stormwater treatment												
Undeveloped sections of access road	Existing overland flow to Duck River												
Roof water	On-site detention												
Gatehouse and weighbridge area, carpark, access road and container loading area adjacent to the compaction units	First flush system, GPT, oil and grease separation, on-site detention												
	SITE CONTAMINATION												
103	The Site Contamination Management Plan must be implemented to the satisfaction of the Director-General, prior to and for the duration of the development	C	1. SCMP - 2021	The SCMP formed part of the scope of the IEA and Veolia demonstrated sufficient level of implementation.									
	NOISE MANAGEMENT												
104	The Applicant shall implement the approved Construction Noise Management Plan, to the satisfaction of the Director-General.	NT	N/A	Condition was not triggered within the IEA period.									
105	The Applicant shall implement the Noise Management Plan, to the satisfaction of the Director-General.	C	1. NMP - 2021	The NMP formed part of the scope of the IEA and Veolia demonstrated sufficient level of implementation.									
106	All construction work at the premises that creates audible noise at residential premises must only be conducted between 7:00am and 5:00pm on Mondays to Fridays and between the hours of 8:00am and 5:00pm on Saturdays. There shall be no construction activities on Sundays or public holidays. The allowable construction times may be varied by an environment protection licence.	NT	N/A	Condition was not triggered within the IEA period.									
107	The delivery of construction material outside the hours of construction permitted by this Consent is not permitted except when required by police or other authorities for safety reasons; and/or because the operation, personnel or equipment are endangered. In such circumstances, notification is to be provided to the EPA and affected residents at least 24 hours prior to the delivery, or within a reasonable period in the case of an emergency.	NT	N/A	Condition was not triggered within the IEA period.									

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Condition Ref	Requirement (Exact Wording)	Audit Findings	Evidence Reviewed	Independent IEA Findings	Unique Identification
108	Deleted Condition (DA-205-08-01-MOD-3)	NT	N/A	Condition has been removed.	
109	Deleted Condition (DA-205-08-01-MOD-3)	NT	N/A	Condition has been removed.	
110	Deleted Condition (DA-205-08-01-MOD-3)	NT	N/A	Condition has been removed.	
111	Deleted Condition (DA-205-08-01-MOD-3)	NT	N/A	Condition has been removed.	
112	<p>The Applicant shall implement a Heavy Vehicle Noise Monitoring Management Program for the development to the satisfaction of the Planning Secretary. This program must;</p> <p>(a) monitor heavy vehicle noise on site, in accordance with the methods outlined in the “Truck Noise Monitoring – Proposed Test and Management Plan” prepared by Heggies and dated 26 May 2008;</p> <p>(b) be undertaken quarterly for a year starting in October 2008, and annually thereafter, unless otherwise agreed by the Planning Secretary</p> <p>(c) measure at least 25% of the heavy vehicles visiting the site;</p> <p>(d) identify heavy vehicles exceeding the relevant noise criteria specified in Australian Design Rule 28/01, or its successor, and ensure that the owners of these subsequently comply with the relevant noise criteria</p> <p>(e) report the number of non-compliant heavy vehicles identified and the actions undertaken to address these non-compliances in the Annual Environmental Monitoring Report; and</p> <p>(f) be amended, should the monitoring activities not achieve the aim of the program to the satisfaction of the Planning Secretary</p>	C	<p>1. EMP - 2021</p> <p>2. Annual Truck Noise Measurements (Report 14 & 15)</p>	The EMP for the site includes an annual noise monitoring program and noise limits for heavy vehicles. The Annual Truck Noise Measurements Clyde Transfer Terminal was reviewed and addressed the requirements of this condition.	
113	<p>The Applicant shall implement an induction program for all drivers of trucks that deliver waste to the waste terminal with the objective of mitigating noise impacts of trucks entering and leaving the waste terminal, including driving procedures and throttle management. The program is to be designed in consultation with Auburn Council and is to emphasise the importance of noise emission control, driving and operating practices and procedures for night time activities.</p>	C	<p>1. Online induction program</p> <p>2. Training records</p>	<p>The auditor observed during the IEA, that Veolia had rolled out a trial online driver induction program with certain customers. This online program was intended to be rolled out to all customers later in the year. The online induction program provides the ability for Veolia to have up to date training records from its customers.</p> <p>At the time of IEA, the auditor observed records of drivers having completed training being maintained by Veolia.</p>	CTT-DA-OFI-04

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Condition Ref	Requirement (Exact Wording)	Audit Findings	Evidence Reviewed	Independent IEA Findings	Unique Identification
114	The Applicant shall, in conjunction with the rail operator, implement an induction program for all train drivers and other rail staff dedicated to transporting containers to and from the Collex terminal area by train to Woodlawn. The program is to emphasise noise mitigation measures through "Good Neighbour" rail techniques such as notch control, idling practices, shunting speeds and engine control and shall form an integral part of the operational noise management plan.	NC	1. Email from Veolia to Pacific National 2. Safety Interface Agreement	<p>The condition requires Veolia to implement an induction program with Pacific National (rail operator) for all train drivers and other rail staff. This program should emphasise noise mitigation measures through "Good Neighbour" rail techniques and shall form an integral part of the operational noise management plan.</p> <p>During the IEA no training program developed with Pacific National was observed. The NMP did not include specifications for such a training program. It is understood Pacific National has internal training processes for "Good Neighbour" rail techniques that may be sufficient to address this condition, however it was beyond the scope of this IEA to verify this.</p> <p>During the IEA, the auditor observed record of an email from Veolia to Pacific National requesting training evidence being supplied. To date no response has been received by Veolia. At the time of the IEA the auditor observed a Safety Interface Agreement between Veolia and Pacific National. The Safety Interface Agreement outlines relevant safety aspects and each party's responsibilities in relation to training. The safety interface agreement reviewed during the IEA did not include specific requirements around training processes for a "Good Neighbour" or noise mitigation.</p>	CTT-DA-NC-02
VERMIN AND PEST MANAGEMENT					
115	The design of the terminal building and associated waste handling facilities shall incorporate such reasonable measures to eliminate or minimise the potential for birds, rodents, flies and other pests to congregate at the development. Consideration shall be given to incorporating the following measures: (a) sealing surfaces to prevent moisture and odour absorption (b) elimination of crevices where waste, moisture and vermin can accumulate (c) providing screening of the ventilation openings in the building (d) eliminating horizontal surfaces where birds can congregate (e) minimising horizontal ledges where dust and litter can accumulate (f) using fencing and netting to prevent wind-blown litter from escaping.	NT	N/A	Condition was not triggered within the IEA period.	
116	The Vermin and Pest Management Plan must be implemented for the duration of the operation of the development, to the satisfaction of the Director-General.	C	1. VPCP-2021	The VPCP formed part of the scope of the IEA and Veolia demonstrated sufficient level of implementation.	
117	The Applicant must take all practicable measures to prevent the attraction and infestation of the premises with vermin and pests.	C	1. Pest contractor inspection records 2. VPCP - 2021	All reasonable and practical measures for preventing the attraction of vermin and pests was observed during the IEA.	
TRAFFIC MANAGEMENT					

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Condition Ref	Requirement (Exact Wording)	Audit Findings	Evidence Reviewed	Independent IEA Findings	Unique Identification
118	All access to the development shall be via a sealed access road from Parramatta Road. No vehicle shall enter or exit the development via the internal road connecting the Clyde Marshalling Yards to Rawson Street	C	1. Site Inspection	During the site inspection it was observed all vehicles were entering and exiting via the sealed access road from Parramatta Road. This requirement was also reflected in the site induction and traffic management plan.	
119	No vehicle is permitted to turn right into the site off Parramatta Road until the intersection upgrade works have been completed to the satisfaction of Cumberland Council and Roads and Maritime Services (RMS).	C	1. Site Inspection	During the site inspection no vehicles were observed to be turning right into the site off Parramatta Road. This requirement was also reflected in the site induction and traffic management plan. It is noted however through discussions with Veolia, the upgrades to the intersection (e.g. traffic lights) proposed under this condition may cause greater traffic impacts due to the number of vehicles that turn right at the intersection to access neighbouring properties	
119A	Prior to the commencement of construction of the intersection upgrade works, the design of the intersection must be prepared in consultation with and to the satisfaction of Cumberland Council and RMS. The intersection design must accommodate the largest vehicle associated with the development as follows: (a) turning right into the development from Parramatta Road (e.g. 12.5 metre rigid waste trucks); (b) turning left into the development from Parramatta Road (e.g. semi trailers); and (c) turning left out of the development onto Parramatta Road (e.g. semi trailers).	NT	N/A	Condition was not triggered within the IEA period.	
119B	All intersection works must be to the full cost of the Proponent and at no cost to RMS or Cumberland Council	NT	N/A	Condition was not triggered within the IEA period.	
119C	The intersection upgrade works along Parramatta Road/private access road must be designed to meet RMS requirements, and endorsed by a suitable qualified practitioner. The design requirements must be in accordance with AUSTRROADS and other Australian Codes of Practice. The certified copies of the civil design plans must be submitted to RMS for consideration and approval prior to the release of the Construction Certificate by the Principle Certifying Authority and commencement of road works	NT	N/A	Condition was not triggered within the IEA period.	
119D	The Proponent is required to enter into a Work Authorisation Deed (WAD) for the intersection works.	NT	N/A	Condition was not triggered within the IEA period.	
119E	Within 6 months of commencement of right-turn movements into the site, a road safety audit (RSA) must be undertaken for the intersection of Parramatta Road and the private access road by a suitably qualified, independent professional. The results of the RSA, including a program for the implementation of any audit recommendations, must be submitted to Cumberland Council and RMS for consideration and review within 60 days of completion of the audit.	NT	N/A	Condition was not triggered within the IEA period.	
120	No vehicle exiting the development shall turn right onto Parramatta Road.	C	1. Site Inspection	During the site inspection no vehicles were observed to be turning right from the site off Parramatta Road.	
121	The Traffic Management Plan must be implemented for the duration of the operation of the development, to the satisfaction of the Director-General.	C	1. TMP - 2021	The TMP formed part of the scope of the IEA and Veolia demonstrated sufficient level of implementation.	
122	Prior to the commencement of construction activities, the Applicant shall demonstrate to the satisfaction of the Director-General, it has reasonable arrangements in place in respect of its use of the right of carriageway, concerning traffic sharing, protection of underground and above-ground services in the vicinity of the carriageway and the potential impacts on the existing weighbridge.	NT	N/A	Condition was not triggered within the IEA period.	
123	Deleted Condition (DA-205-08-01-MOD-5)	NT	N/A	Condition has been removed.	
124	The Applicant shall fund a traffic study, to be conducted by an independent, suitably qualified person. The study is to be completed and submitted to the Director-General within 14 months from commencement of operations, review the operation of the access road in the first 12 months of the development and recommend any future actions to ensure sufficient future capacity of the access road. The Applicant shall provide a reasonable financial contribution towards any upgrade of the access road recommended by the study.	NT	N/A	Condition was not triggered within the IEA period.	
EMERGENCY MANAGEMENT					
Emergency Management Plan					

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125	In relation to activities, which in the event of a disruption to operations may result in significant pollution being emitted, the Applicant must: (a) conduct an assessment to determine the potential internal and external causes of disruption of operations at the premises; (b) determine how these disruptions would impact on operations; and (c) identify the pollution that would result due to the disruption of operations and what impact the pollution would have on the health of the community and the environment.	C	1. Emergency Response Plan (ERP) - 2021	The ERP includes an identification of the events that could result in a significant pollution event.	
126	In relation to matters identified in the previous condition, the Applicant must prepare an Emergency Management Plan. The Plan shall address, but not necessarily be limited to: (a) identification of threats to the environment and/or public health that could arise in relation to the construction and operation of development. These threats may include fire, overflow, power or other utility failure, natural disaster etc; (b) identification of strategies to minimise and ameliorate the effects of any water pollution identified from the groundwater and surface water monitoring programs; (c) an estimate of the cost of implementation; (d) actions to effectively respond to the disruption of operations so the risk of pollution is minimised; (e) a communications strategy for alerting relevant agencies and the potentially affected community in the event of the disruption to operations leading to significant pollution; and (f) ensuring that all relevant employees are familiar with the emergency management plan.	C	1. ERP - 2021	The ERP was reviewed as part of the IEA and the document addresses the requirements of the condition.	
127	The Applicant shall consult with the NSW Fire Brigades and install a fire main and hydrants as required by the Fire Brigades. The system shall comply with AS 2419.	NT	N/A	Condition has been removed.	
LANDSCAPING					
128	The Applicant shall implement the Landscaping Plan in consultation with Auburn Council and to the satisfaction of the Director- General.	NT	N/A	Condition was not triggered within the IEA period.	
DEVELOPMENT SETBACK					
129	The Applicant shall not construct any new buildings, hardstand, storage areas or vehicle manoeuvring areas within 30 metres of the Duck River Mean High Water Mark (as measured horizontally), to allow for the establishment of a viable riparian zone and multi- purpose recreation path.	NT	N/A	Condition was not triggered within the IEA period.	
RIPARIAN RESTORATION					
130	The Applicant shall prepare at its own expense a site specific Riparian Zone Management Plan to address the issues contained in Auburn's draft Duck River Riparian Management Plan. The Plan shall be submitted to Auburn Council's Director Service Planning prior to the issue of the Occupation Certificate, or as otherwise agreed to by Auburn Council. Any riparian restoration activities undertaken by the Applicant shall, where appropriate, be consistent with but not necessarily limited to the activities listed in Attachment 3.	C	1. Email to Cumberland Council	During the IEA an email from Veolia to the Cumberland Council was observed. This email invited Cumberland Council to collaborate on the Duck River riparian management. No interest on collaboration has been expressed to date.	
DUCK RIVER ACCESSWAY					
131	The Applicant shall facilitate as appropriate and as required by the Director-General, the provision of a 3.0 metre wide reinforced concrete multi-purpose recreation path along the landward side of a 30 metre riparian/public open space dedication zone between the proposed development and Duck River, extending from Parramatta Road to the base of the Clyde railway bridge, along the edge of the development.	C	1. Email to Cumberland Council	During the IEA an email from Veolia to the Cumberland Council was observed. This email invited Cumberland Council to collaborate on the Duck River riparian management. No interest on collaboration has been expressed to date.	
LAND DEDICATION					
132	The Applicant shall facilitate as appropriate and as required by the Director-General and/or contribute to the dedication to Auburn Council of land incorporating the riparian restoration zone and multi-purpose recreation path between the proposed development and Duck River, extending from Parramatta Road to the base of the Clyde railway bridge, along the edge of the development.	C	1. Email to Cumberland Council	During the IEA an email from Veolia to the Cumberland Council was observed. This email invited Cumberland Council to collaborate on the Duck River riparian management. No interest on collaboration has been expressed to date.	
HERITAGE					

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Condition Ref	Requirement (Exact Wording)	Audit Findings	Evidence Reviewed	Independent IEA Findings	Unique Identification
133	The Applicant shall contribute to the development and installation of heritage interpretation signage in consultation with Auburn Council, regarding the heritage significance of the Clyde Marshalling Yards and in particular Track 22 and associated pre-use of the area occupied by the development. The heritage signage is to be approved by Auburn Council and installed within 6 months of commencement of the approved use or as otherwise agreed to by Auburn Council.	NT	N/A	Condition was not triggered within the IEA period.	
COMMUNITY LIASON					
Community Consultative Committee					
134	The Proponent must make all reasonable attempts to establish and maintain a Community Consultative Committee generally in accordance with the Community Consultative Committee Guidelines for State Significant Projects, unless otherwise agreed to in writing by the Planning Secretary. The Proponent must submit a report to the Department every 12 months documenting its progress in establishing and maintaining the Community Consultative Committee over time.	C	1. Veolia CTT website 2. Email distribution list 3. Newsletter	Since receipt of the conditions of consent Veolia has attempted to establish a Community Consultative Committee with little success. Therefore alternative measures have been proposed and approved by the DPIE, including: <ul style="list-style-type: none"> • Publishing the community information phone line and email address on the Veolia's Corporate Website on the Clyde Transfer Terminal webpage. • Inviting community members to an Open Day at Clyde Transfer Terminal. • Creation of an email distribution list to engage with interested stakeholders on a routine basis communicating updates on activities on site. • Sending Clyde Transfer Terminal's Annual Environmental Monitoring Reports (AEMR) to Cumberland Council. 	
135	The Applicant shall, at its own expense: (a) provide appropriate facilities for meetings of the Committee; (b) nominate a representative to attend all meetings of the Committee; (c) provide to the Committee regular information on the progress of the work and monitoring results; (d) promptly provide to the Committee such other information as the Chairperson of the Committee may reasonably request concerning the environmental performance of the development; and (e) provide reasonable access for site inspections by the Committee.	NT	N/A	Condition was not triggered within the IEA period.	

Clyde Transfer Terminal
2021 Independent Environmental Audit
Determination of a Development Application for State Significant, Development Consent
(2021-2022)

Condition Ref	Requirement (Exact Wording)	Audit Findings	Evidence Reviewed	Independent IEA Findings	Unique Identification
136	The Applicant shall establish a trust fund to be managed by the Chairperson of the Committee to facilitate functioning of the Committee, and pay \$2000 per annum to the fund for the duration of the development. The payment shall be indexed according to the Consumer Price Index (CPI) at the time of payment. The first payment shall be made by the date of the first Committee meeting. The Applicant shall also contribute reasonable funds for payment of the independent Chairperson, to the satisfaction of the Director-General.	C	1. IEA Interview 2. Meeting minutes between Veolia and DPIE	<p>The condition requires Veolia to establish and maintain a trust fund to facilitate the functioning of the Community Consultative Committee. During the IEA it was determined Veolia had not established such a fund. Whilst it is understood a community consultative committee has not been able to be established, the requirement for payment to a trust fund as required by this condition has not been removed. Therefore Veolia has not demonstrated reasonable compliance with this condition.</p> <p>The auditor was supplied meeting minutes from a meeting with the DPIE in August 2021. From the meeting it was concluded the DPIE would consider an amendment to this condition which would remove the requirement for a trust fund (whilst a CCC is not in place). If community interest is regained and a CCC is restarted then the trust fund would be required..</p>	CTT-DA-OFI-05
COMMUNITY ENHANCEMENT PROGRAM					

Clyde Transfer Terminal
2021 Independent Environmental Audit
Determination of a Development Application for State Significant, Development Consent
(2021-2022)

Condition Ref	Requirement (Exact Wording)	Audit Findings	Evidence Reviewed	Independent IEA Findings	Unique Identification
137	<p>Prior to the commencement of construction, or as otherwise approved by the Director-General in consultation with Auburn Council, the Applicant shall take all reasonable steps to negotiate an agreed outcome with Auburn Council for an appropriate level of contribution (financial or in-kind) towards mitigating the social and community impacts resulting from the construction and operation of the development.</p> <p>The contribution shall provide, but not necessarily be limited to, the following:</p> <p>(a) the payment of \$50,000 (unless otherwise agreed to by the Director-General) to Auburn Council as a contribution to the drafting of a masterplan for the entire Clyde Marshalling Yards</p> <p>(b) appropriate monetary lump sum contributions to be negotiated with Auburn Council for the purposes of:</p> <ul style="list-style-type: none"> ¼ the widening of the Western Overbridge; ¼ establishing a vegetated riparian restoration zone along the eastern bank of Duck River from Parramatta Road to the Clyde railway bridge; ¼ establishing a multi-purpose recreation path adjacent to the riparian zone from Parramatta Road to the Clyde railway bridge; and ¼ the development and installation of heritage interpretation signage along the multi-purpose recreation path regarding the heritage significance of the Clyde Marshalling Yards and in particular Track 22 and associated pre-use of the area occupied by the development. <p>(c) ongoing or as otherwise agreed to financial contributions proportional to the tonnage throughput of the terminal for the purpose of local community enhancement projects and/or activities in accordance with a community enhancement plan to be prepared by Auburn Council to reflect community priorities and needs.</p> <p><i>Should such a negotiated outcome not be reached, the Applicant shall abide by the requirements of the Director-General concerning community enhancement contribution in light of an independent investigation to establish such contribution.</i></p> <p><i>Such investigation is to be carried out by an independent person(s) to be appointed by the Director-General in consultation with the Applicant and Auburn Council.</i></p> <p><i>The commencement of any construction on-site shall not proceed unless the above outcomes have been agreed or otherwise approved by the Director-General in consultation with Auburn Council.</i></p>	NT	N/A	Condition was not triggered within the IEA period.	
Elements to be addressed in the Environmental Management Plan (Construction Stage) and the Environmental Management Plan (Operation Stage)					

Appendix C - Environmental Monitoring Locations Plan

Appendix D - Monitoring Data

Appendix D1 - Meteorological Data

Hydrometric Consulting Services Pty Ltd

ABN 16 091 437 071

15 February 2021

Mary Wong
Veolia Environmental Services (Australia) Pty Ltd

Re – Quarterly service of weather stations

Dear Mary,

As per our service agreement, on the 10/02/21 HCS undertook the service, calibration and maintenance of the weather stations located at the Horsley Park and Clyde sites. Field readings were obtained by a combination of a Kestral 3500, compass, Monitor Solar Radiation field unit and HS TBRG calibration device. Details are as follows:

Horsley Park 10/02/21

Sensor	Actual (field)	Logger
Temperature – 10m*	18.0	18.5
2m*	18.0	17.6
Relative Humidity*	80	82
Wind Speed	0.4 m/s at ground	0.9 m/s at 10 metres
Wind Direction	230	230
Solar Radiation	300	280
TBRG	10mm	20 tips
Battery/Solar	14.3	

* Note 1: Field reading is not inside the radiation shield.

Note 2: Ignore rainfall tips logged at approximately 0700 EST as these were testing.

Additional Items

1. Solar panel and components cleaned. All components were very dirty.
2. Installation sprayed for insects.
3. Guy wires checked.

Clyde 10/02/21

Sensor	Actual (field)	Logger
Temperature – 10m*	21.1	21.5
2m*	21.1	21.3
Relative Humidity*	63	62.8
Wind Speed	0.0 m/s at ground (poor exposure at ground)	0.0 m/s at 10 metres
Wind Direction	240	240
Solar Radiation	380	410
TBRG	10mm	21 tips
Battery/Solar	13.2	

* Note 1: Field reading is not inside the radiation shield.

Note 2: Ignore rainfall tips logged at approximately 0830 EST as these were testing.

Additional Items

1. All components cleaned.
2. Installation sprayed for insects.
3. Hedge trimmed.
4. New logger program uploaded for new phone numbers.

Both sites are now polled weekly by HCS and data is downloaded and available on the HCS website.

Should you require any further information on this report please do not hesitate to contact me on 0402 134 092.



Glen Murphy

Hydrometric Consulting Services Pty Ltd

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Putney NSW 2112

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www.hydrometric.com.au

Hydrometric Consulting Services Pty Ltd

ABN 16 091 437 071

27 May 2021

Mary Wong
Veolia Environmental Services (Australia) Pty Ltd

Re – Quarterly service of weather stations

Dear Mary,

As per our service agreement, on the 26/05/21 HCS undertook the service, calibration and maintenance of the weather stations located at the Horsley Park and Clyde sites. Field readings were obtained by a combination of a Kestral 3500, compass, Monitor Solar Radiation field unit and HS TBRG calibration device. Details are as follows:

[Horsley Park 26/05/21](#)

Sensor	Actual (field)	Logger
Temperature – 10m*	13.4	14.1
2m*	13.4	13.2
Relative Humidity*	78.7	79.1
Wind Speed	0.9 m/s at ground	1.6 m/s at 10 metres
Wind Direction	170	170
Solar Radiation	21	20
TBRG	10mm	20 tips
Battery/Solar	12.9	

* Note 1: Field reading is not inside the radiation shield.

Note 2: Ignore rainfall tips logged at approximately 0720 EST as these were testing.

Additional Items

1. Solar panel and components cleaned. All components were very dirty.
2. Installation sprayed for insects.
3. Guy wires checked.

[Clyde 26/05/21](#)

Sensor	Actual (field)	Logger
Temperature – 10m*	17.0	17.7
2m*	17.0	16.7
Relative Humidity*	58	52
Wind Speed	1.3 m/s at ground (poor exposure at ground)	1.5 m/s at 10 metres
Wind Direction	190	195 Fluctuating
Solar Radiation	340	355
TBRG	10mm	21 tips
Battery/Solar	13.2	

* Note 1: Field reading is not inside the radiation shield.

Note 2: Ignore rainfall tips logged at approximately 0845 EST as these were testing.

Additional Items

1. All components cleaned.
2. Installation sprayed for insects.

Both sites are now polled weekly by HCS and data is downloaded and available on the HCS website.

Should you require any further information on this report please do not hesitate to contact me on 0402 134 092.



Glen Murphy

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Hydrometric Consulting Services Pty Ltd

ABN 16 091 437 071

28 October 2021

Mary Wong
Veolia Environmental Services (Australia) Pty Ltd

Re – Quarterly service of weather stations

Dear Mary,

As per our service agreement, on the 27/10/21 HCS undertook the service, calibration and maintenance of the weather stations located at the Horsley Park and Clyde sites. Field readings were obtained by a combination of a Kestral 3500, compass, Monitor Solar Radiation field unit and HS TBRG calibration device. Details are as follows:

Horsley Park 27/10/21

Sensor	Actual (field)	Logger
Temperature – 10m*	16.8	16.1
2m*	16.8	16.1
Relative Humidity*	75	77
Wind Speed	1.8 m/s at ground	1.85 m/s at 10 metres
Wind Direction	190	190
Solar Radiation	280	280
TBRG	10mm	20 tips
Battery/Solar	14.3	

* Note 1: Field reading is not inside the radiation shield.

Note 2: Ignore rainfall tips logged at approximately 0640 EST as these were testing.

Additional Items

1. Solar panel and components cleaned. All components were very dirty.
2. Installation sprayed for insects.
3. Guy wires checked.

Clyde 27/10/21

Sensor	Actual (field)	Logger
Temperature – 10m*	17.0	18.8
2m*	17.0	19.2
Relative Humidity*	58.9	59.3
Wind Speed	0.5 m/s at ground (poor exposure at ground)	0 m/s at 10 metres. New bearings required.
Wind Direction	220	220
Solar Radiation	500	530
TBRG	10mm	21 tips
Battery/Solar	12.9	

* Note 1: Field reading is not inside the radiation shield.

Note 2: Ignore rainfall tips logged at approximately 0730 EST as these were testing.

Note 3: New bearings required in wind speed sensor.

Additional Items

1. All components cleaned.
2. Installation sprayed for insects.

Both sites are now polled weekly by HCS and data is downloaded and available on the HCS website.

Should you require any further information on this report please do not hesitate to contact me on 0402 134 092.

A handwritten signature in black ink, appearing to read 'Glen Murphy'.

Glen Murphy

Hydrometric Consulting Services Pty Ltd

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Appendix D2 - Odour Monitoring Data



VEOLIA (AUSTRALIA) PTY LTD

Clyde Waste Transfer Terminal

Odour Audit XXXVII

Final Report

June 2021

THE ODOUR UNIT PTY LTD

ABN 53 09 116 5061
ACN 091 165 061

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Project Number: N1473L

Report Revision		
Revision Number	Date	Description
Draft report	22.06.2021	Issued for internal review
Final report	02.07.2021	Final report issued to the client
Report Preparation		
Report Prepared By: J. Schulz, I. Farrugia & M. Assal		Approved By: M. Assal
Report Title: Veolia (Australia) Pty Ltd Clyde Waste Transfer Terminal – Odour Audit XXXVII		

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APPENDIX B: Weather Data Calibration Reports (November 2020 – May 2021)

APPENDIX C: Field Ambient Odour Assessment Plot and Field Sheets (13 May 2021)

LIST OF ABBREVIATIONS AND DEFINITIONS

FAOA	Field Ambient Odour Assessment
HCS	Hydrometric Consulting Services
the Draft OEMP	The draft version of the <i>Operational Environmental Management Plan</i> dated 6 November 2020
the February 2010 OMP	Odour Management Plan dated February 2010
the Odour Audit	Odour Audit XXXVII covering the six months between 19 November 2020 to 13 May 2021
the September 2017 Container Preparation Document	Waste container preparation requirements for the Site
the September 2017 NSW RR Container Document	<i>NSW Resource Recovery – Container Maintenance</i> dated 15 September 2017
the Site	Veolia Clyde Transfer Terminal
TOU	The Odour Unit Pty Ltd
TTB	Transfer Terminal Building
Veolia	Veolia (Australia) Pty Ltd

UNITS OF MEASUREMENTS

°C	degrees Celsius
m/s	metres per second

1 INTRODUCTION

The Odour Unit Pty Ltd (**TOU**) was commissioned by Veolia (Australia) Pty Ltd (**Veolia**) to undertake the thirty-seventh (**XXXVII**) Odour Audit at the Clyde Transfer Terminal (**the Site**) on Thursday, 13 May 2021. The visit for this odour audit was undertaken by a TOU Odour Consultant and is the thirty-seventh (37th) to be carried out since the commissioning of the forced air extraction system within the waste transfer terminal.

1.1 ODOUR AUDIT PERIOD

Odour Audit XXXVII covers the six months between 19 November 2020 and 13 May 2021 (**the Odour Audit**).

1.2 ODOUR AUDIT REQUIREMENTS

The Odour Audit requirements originate from the *Conditions of Consent – 48(f)* and are outlined below:

“48. The Odour Management Plan must address, but is not necessarily limited to, the following issues:

(f) An odour audit program which provides for a comprehensive odour audit of the premises and nearby commercial and residential areas, by an independent, appropriately qualified and experienced person, to be conducted 3-monthly for the initial 24 months of receiving un-containerised waste at the terminal, 3-monthly for the 12 months following commissioning the odour control system subject to MOD-133-11-2006, and 6-monthly thereafter, unless otherwise approved in writing by the Director-General.”

As with previous Odour Audits, Odour Audit XXXVII focused on issues relating to general housekeeping, fugitive odour emissions from the transfer building, ground level odour impacts, meteorological monitoring, complaints handling, and actions on past odour audit recommendations. Specifically, the Odour Audit approach included:

- A general inspection and smoke testing of the transfer building;
- The inspection of the container packing area and site access roads;
- The examination of the complaint register;
- The review of the on-site meteorological data log and equipment maintenance/calibration;
- The analysis of relevant documentation relating to odour management; and
- The undertaking of an off-site downwind Field Ambient Odour Assessment (**FAOA**) survey.

1.3 PREVAILING WEATHER CONDITIONS

At the time of the Odour Audit visit, it was moderate (2.0 metres per second (**m/s**) to 3.0 m/s) wind speeds with the local wind direction blowing predominately from the north-west. The skies were clear and the ambient temperature during the Odour Audit visit was approximately 20 degrees Celsius (**°C**).

No rainfall was observed during the Odour Audit visit.

2 ODOUR AUDIT FINDINGS

2.1 ASSESSMENT OF GENERAL HOUSEKEEPING

2.1.1 Transfer Terminal Building

During the Odour Audit visit, there were approximately 120-150 tonnes of waste on the floor. This tonnage is considered to be within the normal operating range of the Transfer Terminal Building (TTB). The TTB floor area not covered by waste material was observed to be reasonably clean, with little evidence of leachate or aged material. General housekeeping procedures of the TTB were good, as found during several truck-unloading sequences. It was also observed that the TTB's front-end loaders cleared the floor area of waste on a regular basis, minimising the exposed area of waste.

As with previous audits, and consistent with TOU's experience at other waste transfer stations, there was a weak to distinct level of odour observed within the TTB. A photo of the waste on the floor as found during the Odour Audit visit is shown in Photo 2.1.

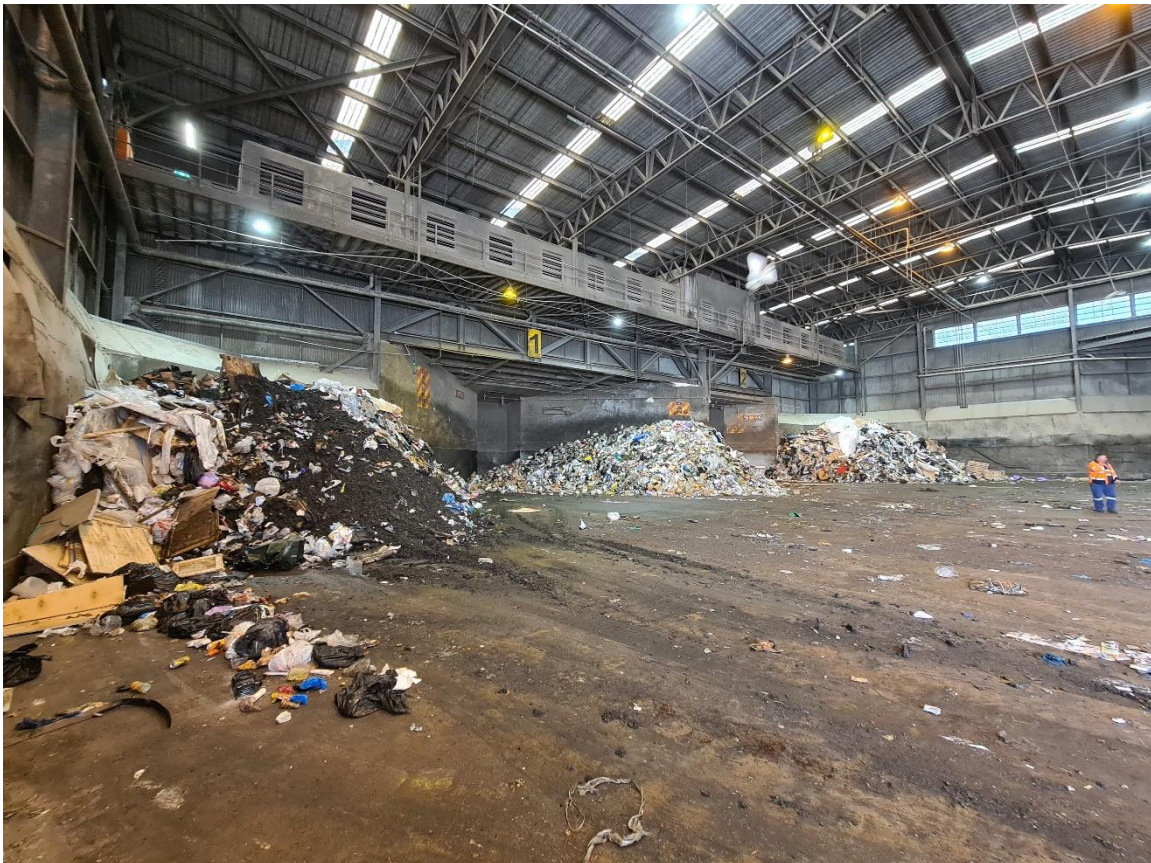


Photo 2.1 – TTB waste on-floor as found on 13 May 2021

2.1.2 Container Packing Area and Site Roadways

The container packing area and site roadways were found to be clean and well managed with no evidence of waste or exposed leachate. Like previous odour audits, the container compacting/train packing area had a weak to distinct odour that was intermittently detectable but was confined to this area only (see **Appendix B** for Field Ambient Odour Assessment Survey results). TOU was advised by a Veolia personnel that one of the two compactors were in operation at the time of the Odour Audit visit. The general housekeeping around this area was observed to be of high quality, with no evidence to suggest otherwise.

As with previous Odour Audits, the containers are cleaned off-site at Veolia's Woodlawn Bioreactor Facility before being returned to the Site. The weight of each container is monitored to determine if there is any waste that has not been removed completely from each container, which in turn reduces the likelihood of the containers contributing to the Site's odour levels.

2.1.2.1 Container Management and Maintenance

Based on previous verbal discussions with the Veolia team and observations made during the visit, the Odour Audit finds that Veolia continues to implement the policies and procedures as outlined in the following documents:

- The container management and maintenance procedures titled *NSW Resource Recovery – Container Maintenance* dated 15 September 2017 (**the September 2017 NSW RR Container Document**), which details the following:
 - The design of the containers;
 - The maintenance and management of the activated carbon filter retrofitted to the containers;
 - The container management procedure; and
 - The container maintenance procedure.
- The waste container preparation requirements for the Site (**the September 2017 Container Preparation Document**), which details the following:
 - The inspections and actions to be undertaken by operators to enable containers to be prepared to an acceptable standard;
 - The steps to be undertaken should a damaged container be identified; and
 - The steps to be undertaken should a leaking container be identified.

2.1.3 Odour Management Plan

As per the Odour Management Plan dated February 2010 (**the February 2010 OMP**) for the Site, following the compaction of waste, all filled containers are entirely sealed and remain so while at the Site. All containers used are required to be in good condition, and unused/returned containers adequately clean. The Odour Audit finds that this continues to be current practice at the Site. A view of the condition of the container area as found on 13 May 2021 is shown in **Photo 2.2**.



Photo 2.2 – A view of the container area as found on 13 May 2021

2.1.4 Odour Extraction System Maintenance

The service documentation for the maintenance of the odour extraction system was supplied and reviewed as part of the Odour Audit (refer to **Appendix A**). The service logs were provided covering the period between 4 January 2021 to 28 May 2021.

Each service log provided to the Odour Audit indicated that the required inspection and maintenance works were taking place by a suitable service contractor, and the odour extraction system overall was operating efficiently. The service logs during this period noted that all the necessary support works such as checking the fan belts and unit operations, greasing bearings, and other routine preventative maintenance works were being inspected and undertaken.

Given the above and based on the positive results obtained for the smoke testing, odour complaints register, and the FAOA survey conducted as part of the Odour Audit visit, it appears that the current operation of the odour extraction system is satisfactory.

2.1.5 Odour Management Procedures/Plan

The Odour Management Procedures (formerly known as the Odour Minimising Procedures) continue to be regularly reviewed at toolbox meetings, and contemporary issues/recommendations are raised with all staff members at these meetings.

Veolia has advised The Odour Audit that the February 2010 OMP is still in the process of being reviewed and updated. However, TOU was provided a copy of the draft *Operational Environmental Management Plan* for the Site dated 6 November 2020 (the **Draft OEMP**). Upon finalisation of the Draft OEMP and consolidation of all referenced documents, the Odour Audit will review this document in its entirety. Nevertheless, the annual review and commitment to continuous improvement to the operational and environmental management procedures and practices at the Site is endorsed by the Odour Audit.

2.1.6 Transfer Terminal Building

The Odour Audit inspected the fixed metal plates retrofitted along the TTB breezeways in December 2013. All metal plates were found to be intact and in good condition around the TTB. All doors and roller shutters of the TTB were found to be shut at the time of the Odour Audit, reducing the likelihood of odour impacts detected off-site. The louvres on the end walls of the TTB were observed to be permanently shut.

2.1.7 Truck Entrance Plastic Strips

The truck entrance plastic strips of the TTB, used to reduce odour escaping through the opening, were found to be intact and in good condition (refer to **Photo 2.3**).

2.1.8 Smoke Testing

As per previous audits, smoke testing was carried out within the TTB to assist in determining the effectiveness of the forced air extraction system, as well as the extent to which the TTB has been sealed from leaks. As per previous audits, smoke was released from within the TTB at three points within the TTB. **Figure 2.1** shows the three points where the smoke was released within the TTB. **Photo 2.4** shows smoke testing at the truck entrance of the TTB, which reflects an additional test location to the normal smoke testing release points shown in **Figure 2.1**.



Photo 2.3 – A view of the truck entrance plastic strips as found on 13 May 2021



Photo 2.4 – A view of the truck entrance plastic strips during smoke testing on 13 May 2021

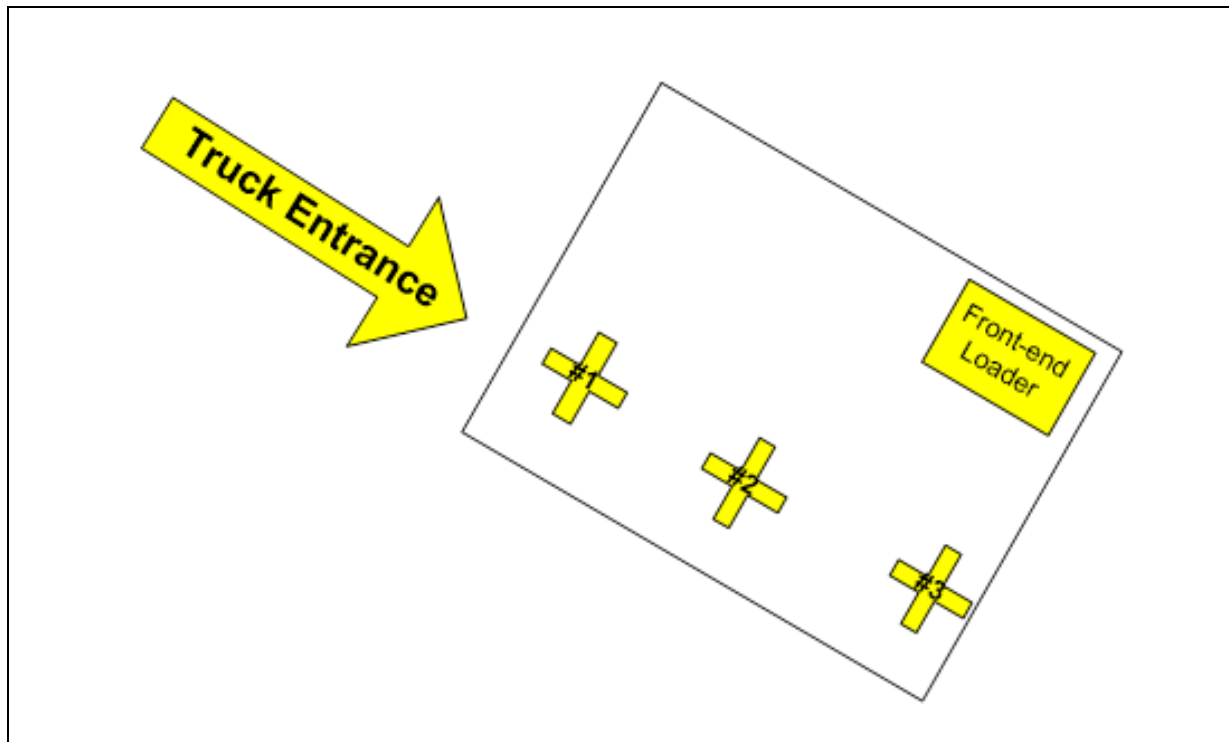


Figure 2.1 – Smoke testing release points within the TTB on 13 May 2021

2.1.8.1 Smoke Testing Results

Smoke Testing Point #1

The smoke released at this point initially rose gradually moving towards the truck entrance before rising to the roof and moving slowly towards the extraction system. Visible smoke extraction at the overhead capture points was evident during the smoke testing at this point. Any smoke that continued towards the truck entrance was drawn back into the building (see shown in **Photo 2.4**).

Smoke Testing Point #2

The smoke released at this point revealed a similar result to that documented for smoke testing point #1.

Smoke Testing Point #3

The smoke released at this point revealed a similar result to that documented for smoke testing point #1.

2.2 ODOUR COMPLAINTS HANDLING AND METEOROLOGICAL DATA

2.2.1 Odour Complaints Handling

As advised by Veolia personnel, there have been no complaints recorded in the Site's complaints register since March 2012.

2.2.2 Meteorological Data

The meteorological data provided to the Odour Audit, covering the period of between November 2020 and May 2021, was inspected and found to be in good order. As found in previous Odour Audits, the observations were provided in daily 15-minute intervals and included all parameters necessary to develop a meteorological dataset for odour dispersion modelling.

As indicated via service records completed by Hydrometric Consulting Services (**HCS**) supplied by Veolia to the Odour Audit, the weather station continues to remain located in an accessible area with the solar panel and components regularly cleaned, and installation sprayed periodically for insects and trimming of nearby vegetation as required to ensure no overgrowth immediately around the weather station pole. Overall, HCS indicated that the weather stations were operating well, and any identified issues were rectified.

The weather data calibration and service reports by HCS are appended as **Appendix B**.

2.3 FIELD AMBIENT ODOUR ASSESSMENT METHODOLOGY

At present, no Australian Standard exists for field-based ambient odour assessment surveys. Consequently, TOU utilises a method for assessing the ground-level impacts of odour emissions using a modified version of the German Standard VDI 3940 (1993) – ‘*Determination of Odorants in Ambient Air by Field Inspections*’.

Field-based ambient odour surveys are considered a valuable odour impact assessment tool as previous experience with ambient odour sampling and subsequent olfactometry testing suggests that accurate and useful ambient odour concentration data is difficult to obtain. Therefore, TOU has adopted a more practical approach based on the field measurement of odour intensity. With this method, calibrated and experienced odour specialists traverse the downwind surrounds of odour sources in a strategically mapped pattern, assessing the presence, character and intensity of any odours encountered and recording these observations along with wind speed and direction.

An ambient odour assessment was performed on 13 May 2021 between 1400 hrs and 1447 hrs. The FAOA survey was undertaken at strategic locations, both on-site and off-site. The ambient odour assessment focus was off-site, as required by the Conditions of Consent on “.....*nearby commercial and residential areas*.....” (Section 48 (f)). The TOU assessor firstly determined the wind direction using a Kestrel 4500 Pocket Weather Tracker Anemometer and then assessed locations of the TTB downwind.

The assessors spent approximately five minutes at each assessment location to gauge the effects of any odour impact. If an odour was detected at a location, the assessors attempted to characterise it. The general aim was to determine the extent of the impact of odours off-site and rank their intensity. The ranking scale for the German Standard VDI 3940 ‘*Determination of Odorants in Ambient Air by Field Inspections*’ was used for

the intensity assessments. The standard's ranking system is based on the following seven-point intensity scale, as shown in Table 2.1 below.

Table 2.1 – VDI 3882 Odour Intensity Categories		
Odour Strength	Intensity Rank (code)	TOU Interpretation (meaning)
Not detectable	0	No odour detected
Very weak	1	Odour detected but not strong enough to be characterised
Weak	2	Odour is weak but just able to be characterised
Distinct	3	Odour is distinct and easily characterised
Strong	4	Strong odour detectable
Very Strong	5	If offensive, the observer may consider moving from the area
Extremely Strong	6	Odour is sufficiently over-powering that assessor moves from the area

2.3.1 Field Ambient Odour Assessment - Results

The results of the FAOA survey conducted during the Odour Audit found that whilst intermittent odours were detected on-site, no odours were detectable off-site that could be linked back to the Site and its activities. This is a good outcome and reflects the findings from previous odour audits.

The field log sheets and visual survey plot are appended as **Appendix C**.

3 RECOMMENDATIONS/FOLLOW-UP ACTIONS

3.1 PREVIOUS AUDIT ACTIONS

The following list provides an outline of the last November 2020 odour audit actions and status as of the Odour Audit:

- **Previous Audit Action 1:** *Action 1 – Continue with the on-going review and commitment to continuous improvement of the Draft OEMP and referenced documents*
- **Status:** On-going and will be reassessed in the next audit.

3.2 TRANSFER TERMINAL BUILDING

All metal plates were found to be intact and in good condition around the TTB. All doors and roller shutters of the TTB were found to be shut at the time of the Odour Audit, reducing the likelihood of odour impacts detected off-site. The louvres on the end walls of the TTB were observed to be permanently shut. Overall, the TTB was found to be well managed.

Based on the findings in the Odour Audit, the following action is recommended:

- **No further action is required at this stage.**

3.3 COMPACTOR AREA

The general housekeeping around the compactor area was observed to be of high quality, with no evidence to suggest otherwise. As with previous Odour Audits, the container compacting/train packing area had a weak to distinct odour that was intermittently detectable but was found to be confined to this area only.

Based on the findings in this Odour Audit, the following action is recommended:

- **No further action is required at this stage.**

3.4 ODOUR EXTRACTION SYSTEM

The service logs indicate that all required maintenance works on the odour extraction system since the previous November 2020 odour audit have been adequately undertaken, and the odour extraction system is operating in a satisfactory condition.

Based on the findings in the Odour Audit, the following action is recommended:

- **No further action is required at this stage.**

3.5 WEATHER STATION

The dataset obtained from the weather station was found to be adequate. Moreover, the calibration and service reports from HCS indicate that all maintenance to the weather station and required calibrations were carried out as needed.

Based on the findings in the Odour Audit, the following action is recommended:

- **No further action is required at this stage.**

The results of the FAOA survey conducted during the Odour Audit found that no odours were detectable off-site that could be linked back to the Site and its activities.

3.6 ODOUR MANAGEMENT PROCEDURES/PLAN

At the timing of the writing of the Odour Audit, the February 2010 OMP was last updated over seven years ago. Given the previous update, it is suggested that as part of good practice that Veolia reviews and update the February 2010 OMP to ensure it continues to reflect the odour management procedures implemented and followed at the Site. TOU was provided a copy of the Draft OEMP. Upon finalisation of the Draft OEMP and consolidation of all referenced documents, the Odour Audit will review this document in its entirety. Nevertheless, the annual review and commitment to continuous improvement to the operational and environmental management procedures and practices at the Site is endorsed by the Odour Audit.

Based on the findings in this Odour Audit, the following action/s is recommended:

- **Action 1 – Continue with the on-going review and commitment to continuous improvement of the Draft OEMP and referenced documents.**

3.7 CONCLUDING REMARK

Overall, this Odour Audit found that the operation and maintenance of the odour management system at the Site was satisfactory. There was no evidence to suggest that significant fugitive odour emission release from the Site is occurring.

The next Odour Audit is due in **November 2021**.



VEOLIA (AUSTRALIA) PTY LTD

Clyde Waste Transfer Terminal

Odour Audit XXXVII

Appendices

June 2021



APPENDIX A:
ODOUR EXTRACTION SYSTEM SERVICE REPORTS
(JANUARY 2021 – MAY 2021)

Service Docket: 00072931

Company	VEOLIA ENVIRONMENTAL SERVICES				
Contract	124-001				
Category	CLYDE - MAINTENANCE				
Property Address	CLYDE WASTE322 Parramatta Rd, CLYDE, NSW, 2142				
Property Description	Whole of Site Mechanical Monthly 1/12/2020				
Property Notes	11-Jan-21 - Zachary Brown - SA-114914 - Carried out maintenance on both extraction fans checking belts pullies and general operation.				
Book ID					
Completion Date	11-Jan-21 <i>ACTUALLY 4TH JAN.</i>				

Defect Type	Barcode	Level	Location	Result	Defect ID	Defect Description	Defect Type
Site - Mechanical	124-001			Passed			

Service Docket: 00080087

Customer	VEOLIA ENVIRONMENTAL SERVICES				
Contract	124-001				
Property	CLYDE - MAINTENANCE				
Property Address	322 Parramatta Rd, CLYDE, NSW, 2142				
Activity Description	Whole of Site Mechanical Monthly 1/1/2021				
Activity Notes	20-Jan-21 - Zachary Brown - SA-124108 - Maintenance complete on both extractor fans. Cleaned out the motor fins and dust off dampers.				
Log Book ID					
Completion Date	20-Jan-21				

Equipment Type	Barcode	Level	Location	Result	Defect ID	Defect Description	Defect Type
Whole of Site - Mechanical	124-001			Passed			

Thursday, 9 April 2020

Service Docket: 00086449

Customer	VEOLIA ENVIRONMENTAL SERVICES				
Contract	124-001				
Property	CLYDE - MAINTENANCE				
Property Address	322 Parramatta Rd, CLYDE, NSW, 2142				
Activity Description	Whole of Site Mechanical Monthly 1/2/2021				
Activity Notes	01-Mar-21 - Zachary Brown - SA-131796 - Attended site signed in and carried out jsa. Completed maintenance on both extractor fans checking operation and cleaned the dust out of the motor fins.				
Log Book ID					
Completion Date	02-Mar-21				

Equipment Type	Barcode	Level	Location	Result	Defect ID	Defect Description	Defect Type
Whole of Site - Mechanical	124-001			Passed			

Thursday, 9 April 2020

Service Docket: 00104522

Customer	VEOLIA ENVIRONMENTAL SERVICES
Contract	124-001
Property	CLYDE - MAINTENANCE
Property Address	322 Parramatta Rd, CLYDE, NSW, 2142
Activity Description	Whole of Site Mechanical Monthly 1/4/2021
Activity Notes	30-Apr-21 - Zachary Brown - SA-153377 - Attended site, signed in, completed permit to work and carried out JSA. Gained access into plant room and isolated and tagged out both fans. Greased up both motors and cleaned dust out of the fins. Checked condition of belts and pulleys. Dusted down the dampers and turned the fans back on. Signed out of site and permit.
Log Book ID	
Completion Date	30-Apr-21

Equipment Type	Barcode	Level	Location	Result	Defect ID	Defect Description	Defect Type
Whole of Site - Mechanical	124-001			Passed			

Safety Date	Safety Questions	Service Appointment	Service Resource	Result
31-Mar-2021	Hold induction & PPE for contract?	SA-153377	Zachary Brown	
31-Mar-2021	Hold induction & PPE Notes	SA-153377	Zachary Brown	
31-Mar-2021	Performing Electrical Work?	SA-153377	Zachary Brown	No
31-Mar-2021	Performing Electrical Work Notes	SA-153377	Zachary Brown	
31-Mar-2021	Clear access to work area and equipment?	SA-153377	Zachary Brown	Yes
31-Mar-2021	Clear access Notes	SA-153377	Zachary Brown	
31-Mar-2021	Weather appropriate to commence work?	SA-153377	Zachary Brown	Yes
31-Mar-2021	Weather appropriate Notes	SA-153377	Zachary Brown	
31-Mar-2021	Potential risk of disturbing asbestos?	SA-153377	Zachary Brown	No
31-Mar-2021	Risk of disturbing asbestos Notes	SA-153377	Zachary Brown	
31-Mar-2021	Tasks involves working at heights?	SA-153377	Zachary Brown	No
31-Mar-2021	Involves working at heights Notes	SA-153377	Zachary Brown	
31-Mar-2021	Task involves mobile Plant & Equipment?	SA-153377	Zachary Brown	
31-Mar-2021	Mobile Plant & Equipment Notes	SA-153377	Zachary Brown	
31-Mar-2021	Will work impact Pedestrians/Vehicle?	SA-153377	Zachary Brown	No
31-Mar-2021	Work impact Pedestrians/Vehicle Notes	SA-153377	Zachary Brown	
31-Mar-2021	Involves contact with energy source?	SA-153377	Zachary Brown	No
31-Mar-2021	Contact with energy source Notes	SA-153377	Zachary Brown	
31-Mar-2021	Task involves using Chemical/Substances?	SA-153377	Zachary Brown	No
31-Mar-2021	Chemical/Substances Notes	SA-153377	Zachary Brown	
31-Mar-2021	Will your task involve Manual Handling?	SA-153377	Zachary Brown	No
31-Mar-2021	Task involve Manual Handling Notes	SA-153377	Zachary Brown	
31-Mar-2021	Necessary permits obtained/approved?	SA-153377	Zachary Brown	N/A
31-Mar-2021	Necessary permits obtained/approved Note	SA-153377	Zachary Brown	
31-Mar-2021	Equipped for Hygiene & Social Distancing	SA-153377	Zachary Brown	N/A
31-Mar-2021	Hygiene & Social Distancing Notes	SA-153377	Zachary Brown	
31-Mar-2021	Reviewed task/environment? Is it Safe?	SA-153377	Zachary Brown	Yes
31-Mar-2021	Task/environment Safety Notes	SA-153377	Zachary Brown	

Service Docket: 00110575

Customer	VEOLIA ENVIRONMENTAL SERVICES
Contract	124-001
Property	CLYDE - MAINTENANCE
Property Address	322 Parramatta Rd, CLYDE, NSW, 2142
Activity Description	Whole of Site Mechanical Monthly 1/5/2021
Activity Notes	24-May-21 - Zachary Brown - SA-168986 - Attended site, signed in and completed JSA. Isolated fans and carried out maintenance. Greased the motors and checked belts, pulley and general operation. Dusted down the motor fins and vsd. Signed out of site.
Log Book ID	
Completion Date	28-May-21

Equipment Type	Barcode	Level	Location	Result	Defect ID	Defect Description	Defect Type
Whole of Site - Mechanical	124-001			Passed			

Safety Date	Safety Questions	Service Appointment	Service Resource	Result
20-Apr-2021	Hold induction & PPE for contract?	SA-159064	Jake Hobbs	
20-Apr-2021	Hold induction & PPE Notes	SA-159064	Jake Hobbs	
20-Apr-2021	Performing Electrical Work?	SA-159064	Jake Hobbs	No
20-Apr-2021	Performing Electrical Work Notes	SA-159064	Jake Hobbs	
20-Apr-2021	Clear access to work area and equipment?	SA-159064	Jake Hobbs	Yes
20-Apr-2021	Clear access Notes	SA-159064	Jake Hobbs	
20-Apr-2021	Weather appropriate to commence work?	SA-159064	Jake Hobbs	Yes
20-Apr-2021	Weather appropriate Notes	SA-159064	Jake Hobbs	
20-Apr-2021	Potential risk of disturbing asbestos?	SA-159064	Jake Hobbs	No
20-Apr-2021	Risk of disturbing asbestos Notes	SA-159064	Jake Hobbs	
20-Apr-2021	Tasks involves working at heights?	SA-159064	Jake Hobbs	No
20-Apr-2021	Involves working at heights Notes	SA-159064	Jake Hobbs	
20-Apr-2021	Task involves mobile Plant & Equipment?	SA-159064	Jake Hobbs	
20-Apr-2021	Mobile Plant & Equipment Notes	SA-159064	Jake Hobbs	
20-Apr-2021	Will work impact Pedestrians/Vehicle?	SA-159064	Jake Hobbs	No
20-Apr-2021	Work impact Pedestrians/Vehicle Notes	SA-159064	Jake Hobbs	
20-Apr-2021	Involves contact with energy source?	SA-159064	Jake Hobbs	No
20-Apr-2021	Contact with energy source Notes	SA-159064	Jake Hobbs	
20-Apr-2021	Task involves using Chemical/Substances?	SA-159064	Jake Hobbs	No
20-Apr-2021	Chemical/Substances Notes	SA-159064	Jake Hobbs	
20-Apr-2021	Will your task involve Manual Handling?	SA-159064	Jake Hobbs	No
20-Apr-2021	Task involve Manual Handling Notes	SA-159064	Jake Hobbs	
20-Apr-2021	Necessary permits obtained/approved?	SA-159064	Jake Hobbs	N/A
20-Apr-2021	Necessary permits obtained/approved Note	SA-159064	Jake Hobbs	
20-Apr-2021	Equipped for Hygiene & Social Distancing	SA-159064	Jake Hobbs	N/A
20-Apr-2021	Hygiene & Social Distancing Notes	SA-159064	Jake Hobbs	
20-Apr-2021	Reviewed task/environment? Is it Safe?	SA-159064	Jake Hobbs	Yes
20-Apr-2021	Task/environment Safety Notes	SA-159064	Jake Hobbs	
21-May-2021	Hold induction & PPE for contract?	SA-168986	Zachary Brown	
21-May-2021	Hold induction & PPE Notes	SA-168986	Zachary Brown	
21-May-2021	Performing Electrical Work?	SA-168986	Zachary Brown	No
21-May-2021	Performing Electrical Work Notes	SA-168986	Zachary Brown	
21-May-2021	Clear access to work area and equipment?	SA-168986	Zachary Brown	Yes
21-May-2021	Clear access Notes	SA-168986	Zachary Brown	
21-May-2021	Weather appropriate to commence work?	SA-168986	Zachary Brown	Yes

Safety Date	Safety Questions	Service Appointment	Service Resource	Result
21-May-2021	Weather appropriate Notes	SA-168986	Zachary Brown	
21-May-2021	Potential risk of disturbing asbestos?	SA-168986	Zachary Brown	No
21-May-2021	Risk of disturbing asbestos Notes	SA-168986	Zachary Brown	
21-May-2021	Tasks involves working at heights?	SA-168986	Zachary Brown	No
21-May-2021	Involves working at heights Notes	SA-168986	Zachary Brown	
21-May-2021	Task involves mobile Plant & Equipment?	SA-168986	Zachary Brown	
21-May-2021	Mobile Plant & Equipment Notes	SA-168986	Zachary Brown	
21-May-2021	Will work impact Pedestrians/Vehicle?	SA-168986	Zachary Brown	No
21-May-2021	Work impact Pedestrians/Vehicle Notes	SA-168986	Zachary Brown	
21-May-2021	Involves contact with energy source?	SA-168986	Zachary Brown	No
21-May-2021	Contact with energy source Notes	SA-168986	Zachary Brown	
21-May-2021	Task involves using Chemical/Substances?	SA-168986	Zachary Brown	No
21-May-2021	Chemical/Substances Notes	SA-168986	Zachary Brown	
21-May-2021	Will your task involve Manual Handling?	SA-168986	Zachary Brown	No
21-May-2021	Task involve Manual Handling Notes	SA-168986	Zachary Brown	
21-May-2021	Necessary permits obtained/approved?	SA-168986	Zachary Brown	N/A
21-May-2021	Necessary permits obtained/approved Note	SA-168986	Zachary Brown	
21-May-2021	Equipped for Hygiene & Social Distancing	SA-168986	Zachary Brown	N/A
21-May-2021	Hygiene & Social Distancing Notes	SA-168986	Zachary Brown	
21-May-2021	Reviewed task/environment? Is it Safe?	SA-168986	Zachary Brown	Yes
21-May-2021	Task/environment Safety Notes	SA-168986	Zachary Brown	



APPENDIX B:
WEATHER DATA CALIBRATION REPORTS
(NOVEMBER 2020 – MAY 2021)

Hydrometric Consulting Services Pty Ltd

ABN 16 091 437 071

17 November 2020

Mary Wong
Veolia Environmental Services (Australia) Pty Ltd

Re – Quarterly service of weather stations

Dear Mary,

As per our service agreement, on the 16/11/20 HCS undertook the service, calibration and maintenance of the weather stations located at the Horsley Park and Clyde sites. Field readings were obtained by a combination of a Kestral 3500, compass, Monitor Solar Radiation field unit and HS TBRG calibration device. Details are as follows:

Horsley Park 16/11/20

Sensor	Actual (field)	Logger
Temperature – 10m*	22.4	22
2m*	22.4	22.3
Relative Humidity*	67	67.8
Wind Speed	0.0 m/s at ground	0.3 m/s at 10 metres
Wind Direction	300	298
Solar Radiation	230	220
TBRG	10mm	19 tips
Battery/Solar	14.0	

* Note 1: Field reading is not inside the radiation shield.

Note 2: Ignore rainfall tips logged at approximately 0800 EST as these were testing.

Additional Items

1. Solar panel and components cleaned. All components were very dirty.
2. Installation sprayed for insects.
3. Guy wires checked.

Clyde 16/11/20

Sensor	Actual (field)	Logger
Temperature – 10m*	32	31
2m*	32	31
Relative Humidity*	37	34
Wind Speed	0.7 m/s at ground (poor exposure at ground)	1.4 m/s at 10 metres
Wind Direction	80	80
Solar Radiation	1000	1100
TBRG	10mm	20 tips
Battery/Solar	13.0	

* Note 1: Field reading is not inside the radiation shield.

Note 2: Ignore rainfall tips logged at approximately 1020 EST as these were testing.

Additional Items

1. All components cleaned.
2. Installation sprayed for insects.
3. Hedge trimmed.

Both sites are now polled weekly by HCS and data is downloaded and available on the HCS website.

Should you require any further information on this report please do not hesitate to contact me on 0402 134 092.

A handwritten signature in black ink, reading "Glen Murphy". The signature is written in a cursive, flowing style.

Glen Murphy

Hydrometric Consulting Services Pty Ltd

PO Box 3332

Putney NSW 2112

Mob 0402 134 092

Email glenmurf@ozemail.com.au

www.hydrometric.com.au

Hydrometric Consulting Services Pty Ltd

ABN 16 091 437 071

15 February 2021

Mary Wong
Veolia Environmental Services (Australia) Pty Ltd

Re – Quarterly service of weather stations

Dear Mary,

As per our service agreement, on the 10/02/21 HCS undertook the service, calibration and maintenance of the weather stations located at the Horsley Park and Clyde sites. Field readings were obtained by a combination of a Kestral 3500, compass, Monitor Solar Radiation field unit and HS TBRG calibration device. Details are as follows:

Horsley Park 10/02/21

Sensor	Actual (field)	Logger
Temperature – 10m*	18.0	18.5
2m*	18.0	17.6
Relative Humidity*	80	82
Wind Speed	0.4 m/s at ground	0.9 m/s at 10 metres
Wind Direction	230	230
Solar Radiation	300	280
TBRG	10mm	20 tips
Battery/Solar	14.3	

* Note 1: Field reading is not inside the radiation shield.

Note 2: Ignore rainfall tips logged at approximately 0700 EST as these were testing.

Additional Items

1. Solar panel and components cleaned. All components were very dirty.
2. Installation sprayed for insects.
3. Guy wires checked.

Clyde 10/02/21

Sensor	Actual (field)	Logger
Temperature – 10m*	21.1	21.5
2m*	21.1	21.3
Relative Humidity*	63	62.8
Wind Speed	0.0 m/s at ground (poor exposure at ground)	0.0 m/s at 10 metres
Wind Direction	240	240
Solar Radiation	380	410
TBRG	10mm	21 tips
Battery/Solar	13.2	

* Note 1: Field reading is not inside the radiation shield.

Note 2: Ignore rainfall tips logged at approximately 0830 EST as these were testing.

Additional Items

1. All components cleaned.
2. Installation sprayed for insects.
3. Hedge trimmed.
4. New logger program uploaded for new phone numbers.

Both sites are now polled weekly by HCS and data is downloaded and available on the HCS website.

Should you require any further information on this report please do not hesitate to contact me on 0402 134 092.

A handwritten signature in black ink, appearing to read 'Glen Murphy'.

Glen Murphy

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Hydrometric Consulting Services Pty Ltd

ABN 16 091 437 071

27 May 2021

Mary Wong
Veolia Environmental Services (Australia) Pty Ltd

Re – Quarterly service of weather stations

Dear Mary,

As per our service agreement, on the 26/05/21 HCS undertook the service, calibration and maintenance of the weather stations located at the Horsley Park and Clyde sites. Field readings were obtained by a combination of a Kestral 3500, compass, Monitor Solar Radiation field unit and HS TBRG calibration device. Details are as follows:

[Horsley Park 26/05/21](#)

Sensor	Actual (field)	Logger
Temperature – 10m*	13.4	14.1
2m*	13.4	13.2
Relative Humidity*	78.7	79.1
Wind Speed	0.9 m/s at ground	1.6 m/s at 10 metres
Wind Direction	170	170
Solar Radiation	21	20
TBRG	10mm	20 tips
Battery/Solar	12.9	

* Note 1: Field reading is not inside the radiation shield.

Note 2: Ignore rainfall tips logged at approximately 0720 EST as these were testing.

Additional Items

1. Solar panel and components cleaned. All components were very dirty.
2. Installation sprayed for insects.
3. Guy wires checked.

[Clyde 26/05/21](#)

Sensor	Actual (field)	Logger
Temperature – 10m*	17.0	17.7
2m*	17.0	16.7
Relative Humidity*	58	52
Wind Speed	1.3 m/s at ground (poor exposure at ground)	1.5 m/s at 10 metres
Wind Direction	190	195 Fluctuating
Solar Radiation	340	355
TBRG	10mm	21 tips
Battery/Solar	13.2	

* Note 1: Field reading is not inside the radiation shield.

Note 2: Ignore rainfall tips logged at approximately 0845 EST as these were testing.

Additional Items

1. All components cleaned.
2. Installation sprayed for insects.

Both sites are now polled weekly by HCS and data is downloaded and available on the HCS website.

Should you require any further information on this report please do not hesitate to contact me on 0402 134 092.



Glen Murphy

Hydrometric Consulting Services Pty Ltd

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APPENDIX C:
FIELD AMBIENT ODOUR ASSESSMENT PLOT AND FIELD SHEETS
(13 MAY 2021)



DESCRIPTION Field Ambient Odour Assessment Survey Modified German Standard VDI 3940		LEGEND German Intensity Scale VDI3882 0 Not detectable 1 Very weak 2 Weak 3 Distinct 4 Strong 5 Very strong 6 Extremely strong		 Veolia (Australia) Pty Ltd Clyde Transfer Terminal, Clyde, NSW Field Ambient Odour Assessment Survey Survey Date: 13 May 2021 Survey Time Period: 1400 hrs to 1447 hrs		
	THE ODOUR UNIT PTY LTD Level 3, 12/56 Church Avenue MASCOT, NSW 2020 Phone: (02) 9209 4420 www.odourunit.com.au		DRAWN BY	I.FARRUGIA 09/06/2021	<u>Odour Audit XXXVI</u> Field Ambient Odour Assessment Survey	Plot No. N1473-XXXVII
			CHECKED	J.SCHULZ 11/06/2021		Job No. N1473L
			APPROVED	J.SCHULZ 11/06/2021		
		Local wind direction 		Local wind conditions Calm to light (0 – 0.5 m/s), with winds blowing from the north. No rainfall observed. Refer to FAOA Logsheet N1473L-XXXVII for details on recorded odour detections		



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Field Ambient Odour Assessment Log Sheet

Date: 13 May 2021

Assessor: J. Schulz

Weather Conditions: Calm to light (0 – 0.5 m/s) wind speeds blowing from the north. No rainfall observed.

Survey Reference Plot No: N1473L-XXXVII

GRIF REF. POSITION	MEASUREMENT TIME PERIOD (hrs)	WIND DIRECTION	WIND SPEED (m/s)	ODOUR PRESNT (Y/N)	ODOUR CHARACTER	VDI 3940 INTENSITY SCALE 0-6	COMMENTS
1	1400 – 1405	N	0 – 0.5 m/s	N	--	0	--
2	1407 – 1412	N	0.5 m/s	N	--	0	--
3	1416 – 1421	N	0.5 m/s	N	--	0	--
4	1425 – 1430	N	0.5 m/s	N	--	0	--
5	1433 – 1438	N	0 – 0.5 m/s	N	--	0	--
6	1442 – 1447	N	0 – 0.5 m/s	N	--	0	--



VEOLIA (AUSTRALIA) PTY LTD

Clyde Waste Transfer Terminal

Odour Audit XXXVIII

Final Report

March 2022

THE ODOUR UNIT PTY LTD

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Project Number: N1473L

Report Revision		
Revision Number	Date	Description
Draft report	21.02.2022	Issued for internal review
Final report	10.03.2022	Final report issued to the client
Report Preparation		
Report Prepared By: I. Farrugia & M. Assal		Approved By: M. Assal
Report Title: Veolia (Australia) Pty Ltd Clyde Waste Transfer Terminal – Odour Audit XXXVIII		

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APPENDIX C: Field Ambient Odour Assessment Plot and Field Sheets (25 November 2021)

LIST OF ABBREVIATIONS AND DEFINITIONS

FAOA	Field Ambient Odour Assessment
HCS	Hydrometric Consulting Services
the Draft OEMP	The draft version of the <i>Operational Environmental Management Plan</i> dated 6 November 2020
the February 2010 OMP	Odour Management Plan dated February 2010
the Odour Audit	Odour Audit XXXVII covering the six months between 14 May 2021 to 25 November 2021
the September 2017 Container Preparation Document	Waste container preparation requirements for the Site
the September 2017 NSW RR Container Document	<i>NSW Resource Recovery – Container Maintenance</i> dated 15 September 2017
the Site	Veolia Clyde Transfer Terminal
TOU	The Odour Unit Pty Ltd
TTB	Transfer Terminal Building
Veolia	Veolia (Australia) Pty Ltd

UNITS OF MEASUREMENTS

°C	degrees Celsius
m/s	metres per second

1 INTRODUCTION

The Odour Unit Pty Ltd (**TOU**) was commissioned by Veolia (Australia) Pty Ltd (**Veolia**) to undertake the thirty-eighth (**XXXVIII**) Odour Audit at the Clyde Transfer Terminal (**the Site**) on Thursday, 25 November 2021. The visit for this odour audit was undertaken by a TOU Odour Consultant and is the thirty-eighth (38th) to be carried out since the commissioning of the forced air extraction system within the waste transfer terminal.

1.1 ODOUR AUDIT PERIOD

Odour Audit XXXVIII covers the six months between 13 May 2021 and 25 November 2021 (**the Odour Audit**).

1.2 ODOUR AUDIT REQUIREMENTS

The Odour Audit requirements originate from the *Conditions of Consent – 48(f)* and are outlined below:

“48. The Odour Management Plan must address, but is not necessarily limited to, the following issues:

(f) An odour audit program which provides for a comprehensive odour audit of the premises and nearby commercial and residential areas, by an independent, appropriately qualified and experienced person, to be conducted 3-monthly for the initial 24 months of receiving un-containerised waste at the terminal, 3-monthly for the 12 months following commissioning the odour control system subject to MOD-133-11-2006, and 6-monthly thereafter, unless otherwise approved in writing by the Director-General.”

As with previous Odour Audits, Odour Audit XXXVIII focused on issues relating to general housekeeping, fugitive odour emissions from the transfer building, ground level odour impacts, meteorological monitoring, complaints handling, and actions on past odour audit recommendations. Specifically, the Odour Audit approach included:

- A general inspection and smoke testing of the transfer building;
- The inspection of the container packing area and site access roads;
- The examination of the complaint register;
- The review of the on-site meteorological data log and equipment maintenance/calibration;
- The analysis of relevant documentation relating to odour management; and
- The undertaking of an off-site downwind Field Ambient Odour Assessment (**FAOA**) survey.

1.3 PREVAILING WEATHER CONDITIONS

At the time of the Odour Audit visit, prevailing weather conditions were calm to light (< 2.0 metres per second (**m/s**)) wind speeds with the local wind direction blowing predominantly from the north. The skies were slightly overcast and the ambient temperature during the Odour Audit visit was approximately 25 degrees Celsius (**°C**).

No rainfall was observed during the Odour Audit visit.

2 ODOUR AUDIT FINDINGS

2.1 ASSESSMENT OF GENERAL HOUSEKEEPING

2.1.1 Transfer Terminal Building

During the Odour Audit visit, there were approximately 120-150 tonnes of waste on the floor. This tonnage is considered to be within the normal operating range of the Transfer Terminal Building (TTB). The TTB floor area not covered by waste material was observed to be reasonably clean, with little evidence of leachate or aged material. General housekeeping procedures of the TTB were good, as found during several truck-unloading sequences. It was also observed that the TTB's front-end loaders cleared the floor area of waste on a regular basis, minimising the exposed area of waste.

As with previous audits, and consistent with TOU's experience at other waste transfer stations, there was a weak to distinct level of odour observed within the TTB. A photo of the waste on the floor as found during the Odour Audit visit is shown in Photo 2.1.



Photo 2.1 – TTB waste on-floor as found on 25 November 2021 (during a smoke test)

2.1.2 Container Packing Area and Site Roadways

The container packing area and site roadways were found to be clean and well managed with no evidence of waste or exposed leachate. Like previous odour audits, the container compacting/train packing area had a weak to distinct odour that was intermittently detectable but was confined to this area only (see **Appendix B** for Field Ambient Odour Assessment Survey results). TOU was advised by a Veolia personnel that one of the two compactors were in operation at the time of the Odour Audit visit. The general housekeeping around this area was observed to be of high quality, with no evidence to suggest otherwise.

As with previous Odour Audits, the containers are cleaned off-site at Veolia's Woodlawn Bioreactor Facility before being returned to the Site. The weight of each container is monitored to determine if there is any waste that has not been removed completely from each container, which in turn reduces the likelihood of the containers contributing to the Site's odour levels.

2.1.2.1 Container Management and Maintenance

Based on previous verbal discussions with the Veolia team and observations made during the visit, the Odour Audit finds that Veolia continues to implement the policies and procedures as outlined in the following documents:

- The container management and maintenance procedures titled *NSW Resource Recovery – Container Maintenance* dated 15 September 2017 (**the September 2017 NSW RR Container Document**), which details the following:
 - The design of the containers;
 - The maintenance and management of the activated carbon filter retrofitted to the containers;
 - The container management procedure; and
 - The container maintenance procedure.
- The waste container preparation requirements for the Site (**the September 2017 Container Preparation Document**), which details the following:
 - The inspections and actions to be undertaken by operators to enable containers to be prepared to an acceptable standard;
 - The steps to be undertaken should a damaged container be identified; and
 - The steps to be undertaken should a leaking container be identified.

2.1.3 Odour Management Plan

As per the Odour Management Plan dated February 2010 (**the February 2010 OMP**) for the Site, following the compaction of waste, all filled containers are entirely sealed

and remain so while at the Site. All containers used are required to be in good condition, and unused/returned containers adequately clean. The Odour Audit finds that this continues to be current practice at the Site. A view of the condition of the container area as found on 25 November 2021 is shown in **Photo 2.2**.



Photo 2.2 – A view of the container area as found on 25 November 2021

2.1.4 Odour Extraction System Maintenance

The service documentation for the maintenance of the odour extraction system was supplied and reviewed as part of the Odour Audit (refer to **Appendix A**). The service logs were provided covering the period between 23 June 2021 to 5 November 2021.

Each service log provided to the Odour Audit indicated that the required inspection and maintenance works were taking place by a suitable service contractor, and the odour extraction system overall was operating efficiently. The service logs during this period noted that all the necessary support works such as checking the fan belts and unit operations, greasing bearings, and other routine preventative maintenance works were being inspected and undertaken.

Given the above and based on the positive results obtained for the smoke testing, odour complaints register, and the FAOA survey conducted as part of the Odour Audit visit, it appears that the current operation of the odour extraction system is satisfactory.

2.1.5 Odour Management Procedures/Plan

The Odour Management Procedures (formerly known as the Odour Minimising Procedures) continue to be regularly reviewed at toolbox meetings, and contemporary issues/recommendations are raised with all staff members at these meetings.

Veolia has advised The Odour Audit that the February 2010 OMP is still in the process of being reviewed and updated. However, TOU was provided a copy of the draft *Operational Environmental Management Plan* for the Site dated 6 November 2020 (the **Draft OEMP**). Upon finalisation of the Draft OEMP and consolidation of all referenced documents, the Odour Audit will review this document in its entirety. Nevertheless, the annual review and commitment to continuous improvement to the operational and environmental management procedures and practices at the Site is endorsed by the Odour Audit.

2.1.6 Transfer Terminal Building

The Odour Audit inspected the fixed metal plates retrofitted along the TTB breezeways in December 2013. All metal plates were found to be intact and in good condition around the TTB. All doors and roller shutters of the TTB were found to be shut at the time of the Odour Audit, reducing the likelihood of odour impacts detected off-site. The louvres on the end walls of the TTB were observed to be permanently shut.

2.1.7 Truck Entrance Plastic Strips

The truck entrance plastic strips of the TTB, used to reduce odour escaping through the opening, were found to be intact and in good condition (refer to **Photo 2.3**).

2.1.8 Smoke Testing

As per previous audits, smoke testing was carried out within the TTB to assist in determining the effectiveness of the forced air extraction system, as well as the extent to which the TTB has been sealed from leaks. As per previous audits, smoke was released from within the TTB at three points within the TTB. **Figure 2.1** shows the three points where the smoke was released within the TTB. **Photo 2.4** shows smoke testing at the truck entrance of the TTB, which reflects an additional test location to the normal smoke testing release points shown in **Figure 2.1**.



Photo 2.3 – A view of the truck entrance plastic strips as found on 25 November 2021



Photo 2.4 – A view of the truck entrance plastic strips during smoke testing on 25 November 2021

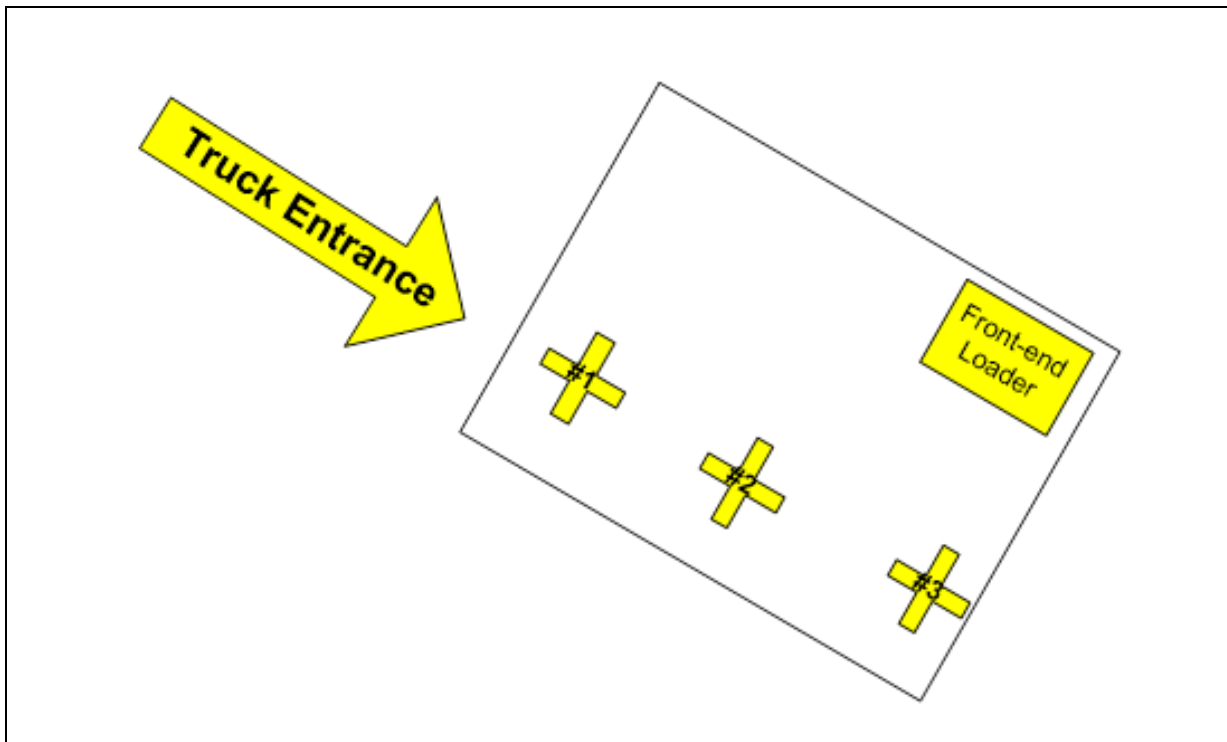


Figure 2.1 – Smoke testing release points within the TTB on 25 November 2021

2.1.8.1 Smoke Testing Results

Smoke Testing Point #1

The smoke released at this point initially rose gradually moving towards the truck entrance before rising to the roof and moving slowly towards the extraction system. Visible smoke extraction at the overhead capture points was evident during the smoke testing at this point. Any smoke that continued towards the truck entrance was drawn back into the building (see shown in **Photo 2.4**).

Smoke Testing Point #2

The smoke released at this point revealed a similar result to that documented for smoke testing point #1.

Smoke Testing Point #3

The smoke released at this point revealed a similar result to that documented for smoke testing point #1.

2.2 ODOUR COMPLAINTS HANDLING AND METEOROLOGICAL DATA

2.2.1 Odour Complaints Handling

As advised by Veolia personnel, there have been no complaints recorded in the Site's complaints register since March 2012.

2.2.2 Meteorological Data

The meteorological data provided to the Odour Audit, covering the period of between June 2021 and November 2021, was inspected and found to be in good order. As found in previous Odour Audits, the observations were provided in daily 15-minute intervals and included all parameters necessary to develop a meteorological dataset for odour dispersion modelling.

As indicated via service records completed by Hydrometric Consulting Services (**HCS**) supplied by Veolia to the Odour Audit, the weather station continues to remain located in an accessible area with the solar panel and components regularly cleaned, and installation sprayed periodically for insects and trimming of nearby vegetation as required to ensure no overgrowth immediately around the weather station pole. Overall, HCS indicated that the weather stations were operating well, and any identified issues were rectified.

The weather data calibration and service reports by HCS are appended as **Appendix B**.

2.3 FIELD AMBIENT ODOUR ASSESSMENT METHODOLOGY

At present, no Australian Standard exists for field-based ambient odour assessment surveys. Consequently, TOU utilises a method for assessing the ground-level impacts of odour emissions using a modified version of the German Standard VDI 3940 (1993) – *‘Determination of Odorants in Ambient Air by Field Inspections’*.

Field-based ambient odour surveys are considered a valuable odour impact assessment tool as previous experience with ambient odour sampling and subsequent olfactometry testing suggests that accurate and useful ambient odour concentration data is difficult to obtain. Therefore, TOU has adopted a more practical approach based on the field measurement of odour intensity. With this method, calibrated and experienced odour specialists traverse the downwind surrounds of odour sources in a strategically mapped pattern, assessing the presence, character and intensity of any odours encountered and recording these observations along with wind speed and direction.

An ambient odour assessment was performed on 25 November 2021 between 1230 hrs and 1315 hrs. The FAOA survey was undertaken at strategic locations, both on-site and off-site. The ambient odour assessment focus was off-site, as required by the Conditions of Consent on “.....*nearby commercial and residential areas*.....” (Section 48 (f)). The TOU assessor firstly determined the wind direction using a Kestrel 4500 Pocket Weather Tracker Anemometer and then assessed locations of the TTB downwind.

The assessors spent approximately five minutes at each assessment location to gauge the effects of any odour impact. If an odour was detected at a location, the assessors attempted to characterise it. The general aim was to determine the extent of the impact of odours off-site and rank their intensity. The ranking scale for the German Standard VDI 3940 *‘Determination of Odorants in Ambient Air by Field Inspections’* was used for the intensity assessments. The standard’s ranking system is based on the following seven-point intensity scale, as shown in Table 2.1 below.

Table 2.1 – VDI 3882 Odour Intensity Categories

Odour Strength	Intensity Rank (code)	TOU Interpretation (meaning)
Not detectable	0	No odour detected
Very weak	1	Odour detected but not strong enough to be characterised
Weak	2	Odour is weak but just able to be characterised
Distinct	3	Odour is distinct and easily characterised
Strong	4	Strong odour detectable
Very Strong	5	If offensive, the observer may consider moving from the area
Extremely Strong	6	Odour is sufficiently over-powering that assessor moves from the area

2.3.1 Field Ambient Odour Assessment - Results

The results of the FAOA survey conducted during the Odour Audit found that whilst intermittent odours were detected on-site, no odours were detectable off-site that could be linked back to the Site and its activities. This is a good outcome and reflects the findings from previous odour audits.

The field log sheets and visual survey plot are appended as **Appendix C**.

3 RECOMMENDATIONS/FOLLOW-UP ACTIONS

3.1 PREVIOUS AUDIT ACTIONS

The following list provides an outline of the last November 2020 odour audit actions and status as of the Odour Audit:

- **Previous Audit Action 1:** *Action 1 – Continue with the on-going review and commitment to continuous improvement of the Draft OEMP and referenced documents*
- **Status:** On-going and will be reassessed in the next audit.

3.2 TRANSFER TERMINAL BUILDING

All metal plates were found to be intact and in good condition around the TTB. All doors and roller shutters of the TTB were found to be shut at the time of the Odour Audit, reducing the likelihood of odour impacts detected off-site. The louvres on the end walls of the TTB were observed to be permanently shut. Overall, the TTB was found to be well managed.

Based on the findings in the Odour Audit, the following action is recommended:

- **No further action is required at this stage.**

3.3 COMPACTOR AREA

The general housekeeping around the compactor area was observed to be of high quality, with no evidence to suggest otherwise. As with previous Odour Audits, the container compacting/train packing area had a weak to distinct odour that was intermittently detectable but was found to be confined to this area only.

Based on the findings in this Odour Audit, the following action is recommended:

- **No further action is required at this stage.**

3.4 ODOUR EXTRACTION SYSTEM

The service logs indicate that all required maintenance works on the odour extraction system since the previous November 2020 odour audit have been adequately undertaken, and the odour extraction system is operating in a satisfactory condition.

Based on the findings in the Odour Audit, the following action is recommended:

- **No further action is required at this stage.**

3.5 WEATHER STATION

The dataset obtained from the weather station was found to be adequate. Moreover, the calibration and service reports from HCS indicate that all maintenance to the weather station and required calibrations were carried out as needed.

Based on the findings in the Odour Audit, the following action is recommended:

- **No further action is required at this stage.**

The results of the FAOA survey conducted during the Odour Audit found that no odours were detectable off-site that could be linked back to the Site and its activities.

3.6 ODOUR MANAGEMENT PROCEDURES/PLAN

At the timing of the writing of the Odour Audit, the February 2010 OMP was last updated over seven years ago. Given the previous update, it is suggested that as part of good practice that Veolia reviews and update the February 2010 OMP to ensure it continues to reflect the odour management procedures implemented and followed at the Site. TOU was provided a copy of the Draft OEMP. Upon finalisation of the Draft OEMP and consolidation of all referenced documents, the Odour Audit will review this document in its entirety. Nevertheless, the annual review and commitment to continuous improvement to the operational and environmental management procedures and practices at the Site is endorsed by the Odour Audit.

Based on the findings in this Odour Audit, the following action/s is recommended:

- **Action 1 – Continue with the on-going review and commitment to continuous improvement of the Draft OEMP and referenced documents.**

3.7 CONCLUDING REMARK

Overall, this Odour Audit found that the operation and maintenance of the odour management system at the Site was satisfactory. There was no evidence to suggest that significant fugitive odour emission release from the Site is occurring.

The next Odour Audit is due in **May 2022**.



VEOLIA (AUSTRALIA) PTY LTD

Clyde Waste Transfer Terminal

Odour Audit XXXVIII

Appendices

March 2022



APPENDIX A:

ODOUR EXTRACTION SYSTEM SERVICE REPORTS

(JUNE 2021 – NOVEMBER 2021)

Service Docket: 00138415

Customer	VEOLIA ENVIRONMENTAL SERVICES
Contract	124-001
Property	CLYDE - MAINTENANCE
Property Address	322 Parramatta Rd, CLYDE, NSW, 2142
Activity Description	Whole of Site Mechanical Monthly 1/6/2021
Activity Notes	23-Jun-21 - Zachary Brown - SA-170095 - Attended site, signed in and complete permit to work. Gained access to plant room, isolated fans and began routine works went through checking belts and pullies. Dusted down all lights and dampers. Signed out of site.
Log Book ID	
Completion Date	23-Jun-21

Equipment Type	Barcode	Level	Location	Result	Defect ID	Defect Description	Defect Type
Whole of Site - Mechanical	124-001			Passed			

Safety Date	Safety Questions	Service Appointment	Service Resource	Result
25-May-2021	Hold induction & PPE for contract?	SA-170095	Zachary Brown	
25-May-2021	Hold induction & PPE Notes	SA-170095	Zachary Brown	
25-May-2021	Performing Electrical Work?	SA-170095	Zachary Brown	No
25-May-2021	Performing Electrical Work Notes	SA-170095	Zachary Brown	
25-May-2021	Clear access to work area and equipment?	SA-170095	Zachary Brown	Yes
25-May-2021	Clear access Notes	SA-170095	Zachary Brown	
25-May-2021	Weather appropriate to commence work?	SA-170095	Zachary Brown	Yes
25-May-2021	Weather appropriate Notes	SA-170095	Zachary Brown	
25-May-2021	Potential risk of disturbing asbestos?	SA-170095	Zachary Brown	No
25-May-2021	Risk of disturbing asbestos Notes	SA-170095	Zachary Brown	
25-May-2021	Tasks involves working at heights?	SA-170095	Zachary Brown	No
25-May-2021	Involves working at heights Notes	SA-170095	Zachary Brown	
25-May-2021	Task involves mobile Plant & Equipment?	SA-170095	Zachary Brown	
25-May-2021	Mobile Plant & Equipment Notes	SA-170095	Zachary Brown	
25-May-2021	Will work impact Pedestrians/Vehicle?	SA-170095	Zachary Brown	No
25-May-2021	Work impact Pedestrians/Vehicle Notes	SA-170095	Zachary Brown	
25-May-2021	Involves contact with energy source?	SA-170095	Zachary Brown	No
25-May-2021	Contact with energy source Notes	SA-170095	Zachary Brown	
25-May-2021	Task involves using Chemical/Substances?	SA-170095	Zachary Brown	No
25-May-2021	Chemical/Substances Notes	SA-170095	Zachary Brown	
25-May-2021	Will your task involve Manual Handling?	SA-170095	Zachary Brown	No
25-May-2021	Task involve Manual Handling Notes	SA-170095	Zachary Brown	
25-May-2021	Necessary permits obtained/approved?	SA-170095	Zachary Brown	N/A
25-May-2021	Necessary permits obtained/approved Note	SA-170095	Zachary Brown	
25-May-2021	Equipped for Hygiene & Social Distancing	SA-170095	Zachary Brown	N/A
25-May-2021	Hygiene & Social Distancing Notes	SA-170095	Zachary Brown	
25-May-2021	Reviewed task/environment? Is it Safe?	SA-170095	Zachary Brown	Yes
25-May-2021	Task/environment Safety Notes	SA-170095	Zachary Brown	

Equilibrium Air Conditioning Services Pty Ltd
ABN 51 844 035 531

Telephone: (02) 9439 4822
service@eqac.com.au

PO Box 7996
Norwest NSW 2153



CUSTOMER JOB NO. 32098 - 2271 - Kyle Dempsey Preventative Maintenance

Project Name Monthly Maintenance

Date Created 29/09/2021

PO # 7100323420

Site Details

Name Veolia Clyde
Address Clyde Transfer Terminal
322 Parramatta road
Clyde NSW 2142
Contact Rod Jones
Telephone
Mobile 0437 167 211
Email rod.jones@veolia.com

Customer Details

Name Veolia Environmental Services P/L
Address Level 4, 65 Pirrama Road
Pyrmont NSW 2009
Contact Bob Manevski
Telephone (02) 9841 2802
Mobile 0412 275 133
Email bob.manevski@veolia.com

Work Requested

Attend Site and carry out maintenance for the month of October

Programmed maintenance service for the HVAC (Heating, Ventilation and Air-conditioning) system onsite.

- Extraction Fans x 02
- Variable Speed Drives x 02
- AC Units Serving Admin Office x 08 (3 ducted and 5 splits)
- Air balancing / Air flow testing 2 times per year
- Cleaning of Fans and Plenum 2 times per year

Kyle Dempsey (01/10/2021) - Work Note

- Arrived on site, conducted maintenance on 2 extraction fans, checking belts, greasing the bearings, clearing up as much dust as possible, tested the run, all tested okay.

(wear and tear is showing on the belts of extraction fan 2, have put forward a request for a change in new belts.) Quote forwarded to Veolia Clyde

- Conducted maintenance on the AC systems in the main office and the weighbridge office. This involved 8 split systems and Room Air Conditioners. Filters have been cleaned, have flushed the condensate drains, have tested operations of each system in full cooling mode, have checked electrical components, have checked the outdoor units, have checked for faults and/or damage. All have tested okay.

Equilibrium Air Conditioning Services Pty Ltd

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PO Box 7996

Norwest NSW 2153



CUSTOMER JOB NO. 32200 - Steve Hortis

Project Name Monthly Maintenance

Date Created 03/11/2021

PO # SS00025

Site Details

Name Veolia Clyde
Address Clyde Transfer Terminal
322 Parramatta road
Clyde NSW 2142
Contact Rod Jones
Telephone
Mobile 0437 167 211
Email rod.jones@veolia.com

Customer Details

Name Veolia Environmental Services P/L
Address Level 4, 65 Pirrama Road
Pyrmont NSW 2009
Contact Adele Rachkide
Telephone 9841 2508
Mobile
Email adele.rachkidi@veolia.com

Work Requested

Attend Site and carry out maintenance for the month of November

Programmed maintenance service for the HVAC (Heating, Ventilation and Air-conditioning) system onsite.

- Extraction Fans x 02
- Variable Speed Drives x 02
- AC Units Serving Admin Office x 08 (3 ducted and 5 splits)
- Air balancing / Air flow testing 2 times per year
- Cleaning of Fans and Plenum 2 times per year

Kyle Dempsey (05/11/2021) - Work Note

Arrived on site

Conducted maintenance on odour extraction fans serving the pit

Conducted maintenance on all split system units in the general office and weigh bridge office.

Isolated the power to extraction fans 1 and 2 in pit

Isolated alarms to the fan sensor.

Took off the covers to inspect the conditions of the belts, pulleys and bearings, all looked okay.

Greased the fan motor and bearings for both fans.

Inspected the conditions of both VSDs, all tested okay.

Turned the main power back on and tested the fans in run, then powered the fan sensor alarms back on.

Conducted maintenance on all split systems (Mitsubishi electric) serving the general office, including the managers offices, the comms room, lunchroom and meeting.

Also checked the Room Air conditioners serving the changeroom and back lunchroom.

All filters have been cleaned, flushed water through the condensate drains, checked operations of all systems in full cooling mode to prepare for warmer temperatures

Checked electrical components

Checked outdoor units

Checked for faults and/or damage to systems.

All tested okay.

Equilibrium Air Conditioning Services Pty Ltd
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CUSTOMER JOB NO. 32200 - Steve Hortis

Conducted maintenance on wall split system serving the weigh bridge office.
Cleaned the filters
Flushed out the condensate drain
Checked operations in full cooling mode to prepare for warmer temperatures
Adjusted the time and setpoints in cooling and heating on the controller
Checked the outdoor unit
Checked the electrical components
Checked for faults and/or damage to system.
All tested okay.

For my safety and well-being during COVID-19, I cannot provide my signature, however, I confirm that the technician was onsite to carry out the above mentioned works.

Customer:

_____	_____
Print Name	Signature

Technician:

_____	_____
Print Name	Signature



APPENDIX B:
WEATHER DATA CALIBRATION REPORTS
(JUNE 2021 – NOVEMBER 2021)

Hydrometric Consulting Services Pty Ltd

ABN 16 091 437 071

27 May 2021

Mary Wong
Veolia Environmental Services (Australia) Pty Ltd

Re – Quarterly service of weather stations

Dear Mary,

As per our service agreement, on the 26/05/21 HCS undertook the service, calibration and maintenance of the weather stations located at the Horsley Park and Clyde sites. Field readings were obtained by a combination of a Kestral 3500, compass, Monitor Solar Radiation field unit and HS TBRG calibration device. Details are as follows:

Horsley Park 26/05/21

Sensor	Actual (field)	Logger
Temperature – 10m*	13.4	14.1
2m*	13.4	13.2
Relative Humidity*	78.7	79.1
Wind Speed	0.9 m/s at ground	1.6 m/s at 10 metres
Wind Direction	170	170
Solar Radiation	21	20
TBRG	10mm	20 tips
Battery/Solar	12.9	

* Note 1: Field reading is not inside the radiation shield.

Note 2: Ignore rainfall tips logged at approximately 0720 EST as these were testing.

Additional Items

1. Solar panel and components cleaned. All components were very dirty.
2. Installation sprayed for insects.
3. Guy wires checked.

Clyde 26/05/21

Sensor	Actual (field)	Logger
Temperature – 10m*	17.0	17.7
2m*	17.0	16.7
Relative Humidity*	58	52
Wind Speed	1.3 m/s at ground (poor exposure at ground)	1.5 m/s at 10 metres
Wind Direction	190	195 Fluctuating
Solar Radiation	340	355
TBRG	10mm	21 tips
Battery/Solar	13.2	

* Note 1: Field reading is not inside the radiation shield.

Note 2: Ignore rainfall tips logged at approximately 0845 EST as these were testing.

Additional Items

1. All components cleaned.
2. Installation sprayed for insects.

Both sites are now polled weekly by HCS and data is downloaded and available on the HCS website.

Should you require any further information on this report please do not hesitate to contact me on 0402 134 092.

A handwritten signature in black ink, appearing to read 'Glen Murphy'.

Glen Murphy

Hydrometric Consulting Services Pty Ltd

PO Box 3332

Putney NSW 2112

Mob 0402 134 092

Email glenmurf@ozemail.com.au

www.hydrometric.com.au

Hydrometric Consulting Services Pty Ltd

ABN 16 091 437 071

28 October 2021

Mary Wong
Veolia Environmental Services (Australia) Pty Ltd

Re – Quarterly service of weather stations

Dear Mary,

As per our service agreement, on the 27/10/21 HCS undertook the service, calibration and maintenance of the weather stations located at the Horsley Park and Clyde sites. Field readings were obtained by a combination of a Kestral 3500, compass, Monitor Solar Radiation field unit and HS TBRG calibration device. Details are as follows:

Horsley Park 27/10/21

Sensor	Actual (field)	Logger
Temperature – 10m*	16.8	16.1
2m*	16.8	16.1
Relative Humidity*	75	77
Wind Speed	1.8 m/s at ground	1.85 m/s at 10 metres
Wind Direction	190	190
Solar Radiation	280	280
TBRG	10mm	20 tips
Battery/Solar	14.3	

* Note 1: Field reading is not inside the radiation shield.

Note 2: Ignore rainfall tips logged at approximately 0640 EST as these were testing.

Additional Items

1. Solar panel and components cleaned. All components were very dirty.
2. Installation sprayed for insects.
3. Guy wires checked.

Clyde 27/10/21

Sensor	Actual (field)	Logger
Temperature – 10m*	17.0	18.8
2m*	17.0	19.2
Relative Humidity*	58.9	59.3
Wind Speed	0.5 m/s at ground (poor exposure at ground)	0 m/s at 10 metres. New bearings required.
Wind Direction	220	220
Solar Radiation	500	530
TBRG	10mm	21 tips
Battery/Solar	12.9	

* Note 1: Field reading is not inside the radiation shield.

Note 2: Ignore rainfall tips logged at approximately 0730 EST as these were testing.

Note 3: New bearings required in wind speed sensor.

Additional Items

1. All components cleaned.
2. Installation sprayed for insects.

Both sites are now polled weekly by HCS and data is downloaded and available on the HCS website.

Should you require any further information on this report please do not hesitate to contact me on 0402 134 092.



Glen Murphy

Hydrometric Consulting Services Pty Ltd

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Mob 0402 134 092

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Hydrometric Consulting Services Pty Ltd

ABN 16 091 437 071

26 November 2021

Mary Wong
Graduate Environmental Engineer
Veolia Environmental Services Australia Pty Ltd

Re – Replacement of Bearings in the Wind Sensor at Clyde Weather Station

Dear Mary,

On 25 November 2021 Hydrometric Consulting Services (HCS) carried out the following work at the Clyde Weather Station:

- Supplied and installed new bearings in the wind sensor at 10 metres
- Serviced and cleaned the sensors at 10 metres.

The system is fully operational.

Should you require any further information please do not hesitate to contact me on 0402 134 092.



Glen Murphy



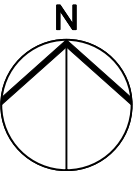
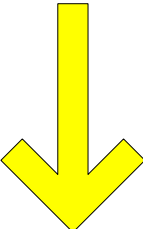


APPENDIX C:

FIELD AMBIENT ODOUR ASSESSMENT PLOT AND FIELD SHEETS

(25 NOVEMBER 2021)



DESCRIPTION Field Ambient Odour Assessment Survey Modified German Standard VDI 3940		LEGEND German Intensity Scale VDI3882 0 Not detectable 1 Very weak 2 Weak 3 Distinct 4 Strong 5 Very strong 6 Extremely strong		 Veolia (Australia) Pty Ltd Clyde Transfer Terminal, Clyde, NSW Field Ambient Odour Assessment Survey Survey Date: 25 November 2021 Survey Time Period: 1230 hrs to 1310 hrs		
	THE ODOUR UNIT PTY LTD Level 3, 12/56 Church Avenue MASCOT, NSW 2020 Phone: (02) 9209 4420 www.odourunit.com.au		DRAWN BY	I.FARRUGIA 06/12/2021	<u>Odour Audit XXXVI</u> Field Ambient Odour Assessment Survey	<u>Plot No.</u> N1473-XXXVIII
			CHECKED	J.SCHULZ 06/12/2021		<u>Job No.</u> N1473L
			APPROVED	J.SCHULZ 06/12/2021		
		Local wind direction 		Local wind conditions Calm to Light, with winds blowing from the north. No rainfall observed. Refer to FAOA Logsheet N1473L-XXXVIII for details on recorded odour detections		



THE ODOUR UNIT PTY LTD

Level 3, 12/56 Church Avenue
MASCOT NSW 2020

Phone: +61 2 9209 4420
Facsimile: +61 2 9209 4421
Email: info@odourunit.com.au
Internet: www.odourunit.com.au
ABN: 53 091 165 061

Field Ambient Odour Assessment Log Sheet

Date: 25 November 2021

Assessor: J. Schulz

Weather Conditions: Light wind speeds blowing from the north.
No rainfall observed.

Survey Reference Plot No: N1473L-XXXVIII

GRIF REF. POSITION	MEASUREMENT TIME PERIOD (hrs)	WIND DIRECTION	WIND SPEED (m/s)	ODOUR PRESNT (Y/N)	ODOUR CHARACTER	VDI 3940 INTENSITY SCALE 0-6	COMMENTS
1	1230 – 1235	N	1.0 – 2.0	N	--	0	--
2	1237 – 1242	N	1.0 – 2.0	N	--	0	--
3	1245 – 1250	N	< 1.0	N	--	0	--
4	1255 – 1300	N	1.0 – 2.0	N	--	0	--
5	1303 – 1308	N	0.5 – 2.0	N	--	0	--
6	1310 – 1315	N	0.5 – 2.0	N	--	0	--

Appendix D3 - Noise Monitoring Data



Annual Truck Noise Measurements

*Clyde Transfer Terminal
November 2021*



Annual Truck Noise Measurements

Quality Information

Completed by:	 Mary Wong <i>Environmental Officer - NSW Resource Recovery</i>
Authorised by:	 Rod Jones <i>Clyde/Greenacre Facility Manager</i>

Address Veolia Australia & New Zealand
Corner Unwin and Shirley Streets, Rosehill, NSW, 2142

Date November 2021

Reference: CTT_TRUCK_1121

Status: **FINAL**

Rev No.	Details	Issued to	Date
0	Draft	Veolia (internal QA)	January 2022
1	Final	Veolia (internal QA)	January 2022

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Introduction

The Clyde Transfer Terminal was issued with Conditions of Development Consent (Conditions) by the Department of Planning, Industry and Environment (DPIE) formerly known as the Department of Planning, which are attached to the Development Consent. The Conditions include a requirement to assess heavy vehicle noise limits specified in Australian Design Rule 28/01 (ADR 28/01).

The requirements of Condition 112 are as follows:

The Applicant shall implement a Heavy Vehicle Noise Monitoring Management Program for the development to the satisfaction of the Director-General. This program must:

- (a) monitor heavy vehicle noise on site, in accordance with the methods outlined in the “Truck Noise Monitoring – Proposed Test and Management Plan” prepared by Heggies and dated 26 May 2008;
- (b) be undertaken quarterly for a year starting in October 2008, and annually thereafter, unless otherwise agreed by the Director-General;
- (c) measure at least 25% of the heavy vehicles visiting the site;
- (d) identify heavy vehicles exceeding the relevant noise criteria specified in the Australian Design Rule 28/01, or its successor, and ensure that the owners of these subsequently comply with the relevant noise criteria;
- (e) report the number of non-compliant heavy vehicles identified and the actions undertaken to address these non-compliances in the Annual Environmental Monitoring Report; and
- (f) be amended, should the monitoring activities not achieve the aim of the program to the satisfaction of the Director-General.

This Annual Truck Noise Measurements report (the Report) presents the results of the sixteenth round of heavy vehicle noise monitoring at the Terminal. Monitoring was completed by Veolia on the 24th of November 2021 between 9:14 AM and 1:29 PM, in accordance with the Proposed Test Management Plan (PTMP) developed by Heggies. This is the twelfth sampling event and report prepared by Veolia under Condition 112 since resuming the responsibility of monitoring from Heggies.

Noise Limit Criteria

The noise limit criteria for maximum allowable noise levels for Goods Vehicles described in the PTMP (2008) are provided in Table 1 below.

Table 1: LAmx Noise Limits (dBA) – ADR 28/01

Vehicle Category Code	Vehicle Type	Vehicles In Motion	Stationary Vehicles			
		Direct Injection & Spark Ignition Diesel Engines	Spark Ignition Engines Exhaust Outlet Height		Direct Injection Engines Exhaust Outlet Height	
			<1500mm	≤1500mm	<1500mm	≤1500mm
NA	Light Goods Vehicles GVM ≤3.5t on road use	78 to 80	89	85	99	95
NB	Medium Goods Vehicles GVM >3.5t ≤12t on road use	81 to 84	95	91	101	97
NC	Heavy Goods Vehicles GVM >12t on road use	81 to 87	95	91	103	99

Note: For vehicles in motion test, LAmx noise limits are based on the Gross Vehicle Mass (GVM) and the Nett Engine Power (NEP). The noise limits in the table are expressed as a range where the lower noise level refers to the minimum GVM and NEP in each category and the upper noise level refers to the maximum GVM and NEP in each category.

Waste collection trucks entering the Terminal are loaded vehicles with a Gross Vehicle Mass (GVM) over 12 tonnes, based on tare weights of incoming vehicles on the site weighbridge. Hence, for the purpose of conducting a vehicle noise assessment at the Terminal, Vehicle Category Code “NC”, for heavy goods vehicles with a GVM of 12 tonnes or more on the road, a Net Engine Power (NEP) of greater than 150 kilowatts (kW) has been applied. The upper limit (87dBA) of the NC range provided in Table 1 will be used to assess truck noise measurements. This is consistent with the assessment criteria applied by Heggies in previous monitoring rounds.

Measurement Methodology

The monitoring location from which the truck noise was measured was consistent with previous monitoring rounds conducted by Veolia and Heggies. Measurements were taken at a distance of 7.5 metres from the centre of the vehicle travel path and a height of 1.2 metres above the vehicle entrance ramp from the weighbridge to the Terminal building, which was the test site surface. Trucks accelerating at this location, which is shown in Appendix A, were measured where the vehicle was accelerating in line with the microphone of the sound level meter. For further information regarding measurement location and methodology refer to the PTMP prepared by Heggies (Heggies, 2008).

Measurements were taken with a TSI Quest SoundPro Series SE/DL Sound Level Meter, using an A-weighted (LA) filter network and fast response time constant as required under ADR 28/01. The (LA) filter ensured that the sound level meter was less sensitive to very high and very low frequencies which would be outside the range of noise emitted by the heavy vehicles entering and exiting the Terminal, while the fast response time constant enabled a more accurate reading of noise from each vehicle movement. Calibration of the Sound Level Meter was completed by AirMet Scientific prior to monitoring. Refer to Appendix B for calibration certificate.

For each truck movement a LA maximum noise level measurement was recorded. Additional information on each truck movement was noted (where possible) to assist in identification of trucks exceeding noise criteria, including:

- Company;
- Vehicle Make and Type;
- Registration; and
- Exhaust Location.

The collected data was cross referenced with the Terminal's weighbridge records for vehicles entering the facility on 24 November 2021, a copy of which is provided in Appendix C, to identify trucks measured during this sampling period and to calculate the percentage of trucks sampled.

Noise Measurement Results

A total of 105 truck movements were recorded entering the Terminal and a measurement for each vehicle movement past the monitoring location was taken as the trucks accelerated on the entrance ramp. Eight (8) of these measurements were under impeded traffic conditions causing distorted noise emissions, caused by queuing of waste trucks waiting to enter the Terminal building during busy periods or idling of engines past the testing zone. Impeded traffic conditions affected the representative quality of the noise measurements. The measured sound levels of each pass-by event were recorded on field sheets, which have been tabulated in Appendix D.

A total measurement of 41.50% of all truck movements (253) was achieved during this monitoring round, which satisfies the minimum requirements of Condition 112 (25% of daily truck movements). Figure 1 presents the distribution of recorded sound level frequencies which were measured in A-weighted decibels (dBA).

Measurements of 'normal' truck acceleration ranged from 68.8dBA to 84.1dBA with the highest frequency occurring between 73 - 78dBA. Impaired acceleration readings due to the impeded traffic conditions ranged from 69dBA to 79dBA, with the highest frequency occurring between 73-74dBA. Impaired acceleration readings were plotted separately from the normal accelerating vehicles on Figure 1.

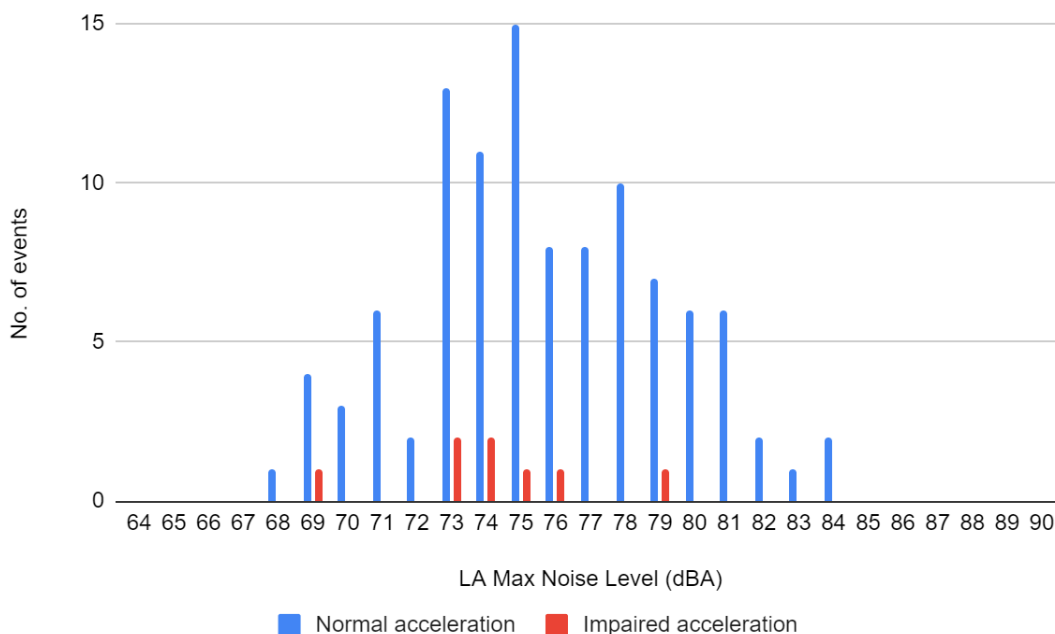


Figure 1: Noise level distribution from Truck Noise Monitoring – 24th of November 2021

Discussion

Comparison of the heavy vehicle noise measurement results against the limits specified in ADR 28/01 (refer to Table 1) indicates that all trucks entering the Terminal in this monitoring round were within the acceptable noise criteria for the NC category vehicles (<87dBA).

Three smaller waste vehicles (ranging from approximately 6 – 11 tonnes when loaded) were observed entering the facility during this monitoring event. For the purpose of this assessment it is considered that these vehicles would fall within the NB category with a noise limit of 84dBA. All noise emitted from vehicles assigned to this category was measured below this threshold as indicated in Table 3.

Table 2: NB class vehicle noise measurements

Time	Company	Make	Registration	L _A Max (dBA)	Impeded Movement
9:24	Wastefree (Aust) Pty Ltd	Fuso	XV54RG	70.8	N
10:04	Ku-ring-gai Council	Mitsubishi	CN93MI	73.4	N
10:17	Capital City Waste Services Pty Ltd	Hino	CJ77ZS	71.2	N

Noise from the Terminal's operations such as plant noise (forklift, compactor, front end loader and road sweeper) and surrounding areas (Parramatta Road, train tracks) were not significant enough to influence waste truck noise measurements at this location. The noise wall located adjacent to the exit ramp, on the North-western boundary of the Terminal, also assisted in focusing noise measurements on truck movements into the facility by limiting interference noise sources.

No noise complaints pertaining to the Terminal's operations were received between the annual truck noise monitoring rounds. This indicates that noise impacts from waste truck movements at the Terminal boundary are within the Terminal and surrounding area background noise levels.

Conclusions

Truck noise monitoring was conducted on the 24th of November 2021 between 9:14 AM and 1:29 PM. The results indicated:

- Noise from 105 truck movements was measured;
- A total of 41.50% of truck movements were measured, which satisfies the minimum 25% requirement of Condition 112;
- All measured trucks were identified against weighbridge records to verify the accuracy of field data for reporting.
- All truck noise measurements were within the noise criteria of ADR 28/01 and hence did not exceed the trigger limits.
- Noise from the Terminal's operations was not significant enough to influence the truck noise assessment.
- No noise complaints pertaining to the Terminal's operations were received since the previous truck noise monitoring round.
- Truck noise impacts at the Terminal boundary are considered to be within background levels.

References

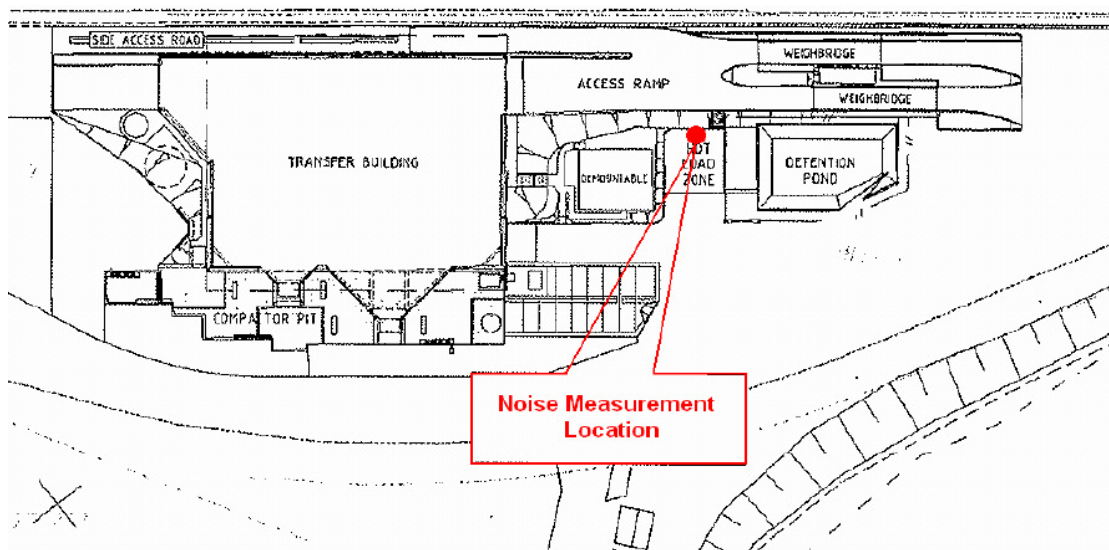
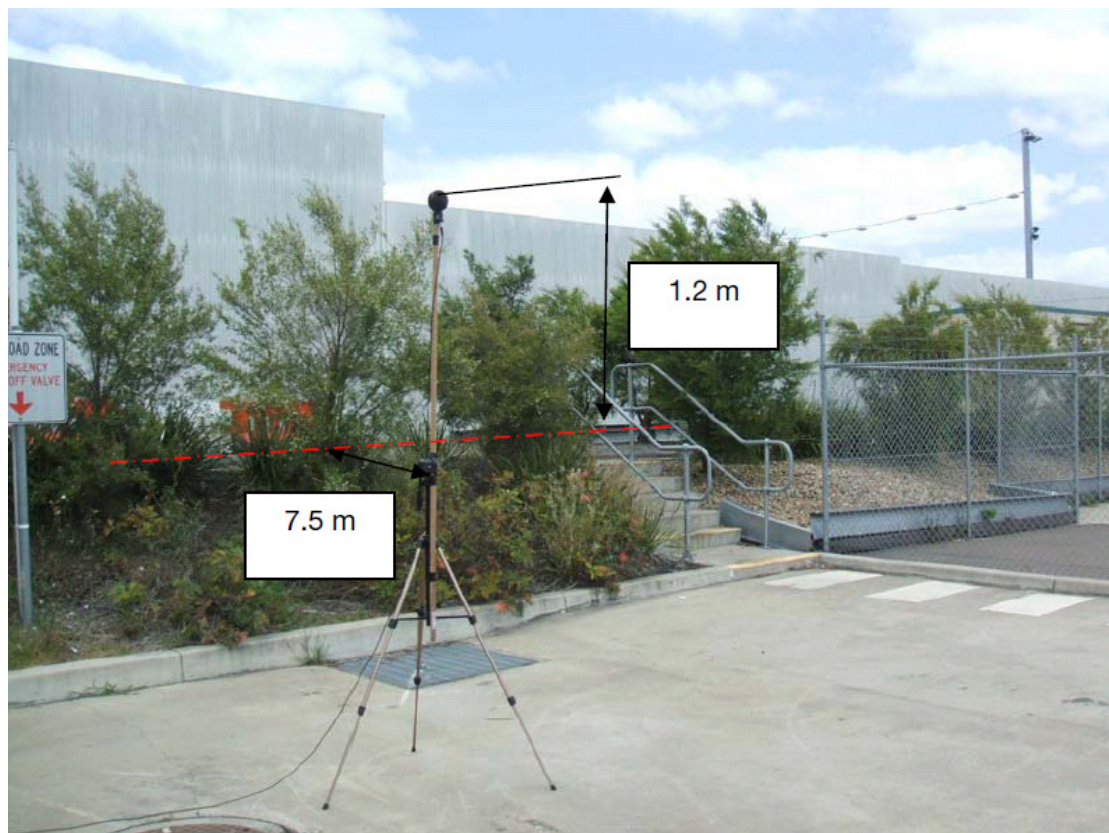
- ADR 28/01 Vehicle Standard Australian Design Rule 28/01 – External Noise of Motor Vehicles), 2006. Federal Register of Legislative Instruments F2006L01279. Australian Government.
- PTMP (2008) Clyde Waste Transfer Facility – Truck Noise Monitoring Proposed Test and Management Plan, 2008. Heggies Pty Ltd.

Appendices

Appendix A - Truck Noise Monitoring Location



Truck Noise Monitoring Location



Appendix B - Sound Level Meter Calibration Certificate

Sound Level Meter

Instrument **Sound Pro**
Serial No. **BJK110022**



23/11/2021

Air-Met Scientific Pty Ltd
1300 137 067

Item	Test	Pass	Comments
Battery	Charge	✓	
	Condition		
	Battery Holder	✓	
	Alkaline Battery	✓	
	Cover	✓	
	Output	✓	
Switch/Keypad	Operation	✓	
Display	Intensity	✓	
	Operation	✓	
Microphone	Type	✓	
	Socket	✓	
	Plug	✓	
PCB	Condition	✓	
Calibrator	Condition	✓	
	Battery Holder	✓	
	IVAC Output	✓	
	Frequency	✓	
A Weighting	Operation	✓	
C Weighting	Operation	✓	
Software	Version		
Datalogger	Operation	✓	
Download	Operation	✓	
Other Tests			

Certificate of Calibration

This is to certify that the above instrument has been calibrated to the following specifications:

Frequency	Db	Volts AC	Certified	Calibration Equipment	Instrument Reading	
					Before	After
1Khz	114dB	1 Vac	NIST	QIH020121	113.9dB	114dB

Calibrated by: Kylie Rawlings

Calibration date: **23/11/2021**

Next calibration due: **22/05/2022**

Appendix C - Weighbridge Record

Facility	Trans Date	Time In	Rego No	Customer name
Clyde	24/11/2021	00:13	XN92TT	Enfield FrontLift
Clyde	24/11/2021	00:34	CL78JV	Enfield RearLift
Clyde	24/11/2021	00:45	XN58OU	Enfield FrontLift
Clyde	24/11/2021	00:47	XN14TR	Earthpower Technologies-Site Divers
Clyde	24/11/2021	00:47	XN49CY	Enfield RearLift
Clyde	24/11/2021	00:51	XO79AO	Enfield Bulk
Clyde	24/11/2021	01:09	XN52TS	Enfield FrontLift
Clyde	24/11/2021	01:12	BJB386	Enfield Bulk
Clyde	24/11/2021	01:37	CP08NQ	Enfield Bulk
Clyde	24/11/2021	01:43	XN42CY	Enfield RearLift
Clyde	24/11/2021	01:59	XN08CG	Enfield Bulk
Clyde	24/11/2021	02:04	CP08NQ	Enfield Bulk
Clyde	24/11/2021	02:13	CN76MI	Ku-ring-gai Council
Clyde	24/11/2021	02:22	CN79MI	Ku-ring-gai Council
Clyde	24/11/2021	02:28	CN73MI	Ku-ring-gai Council
Clyde	24/11/2021	02:30	BK19BD	Enfield Bulk
Clyde	24/11/2021	02:34	XO55DB	Enfield FrontLift
Clyde	24/11/2021	02:35	CN93MI	Ku-ring-gai Council
Clyde	24/11/2021	02:37	CN84MI	Ku-ring-gai Council
Clyde	24/11/2021	02:38	CN75MI	Ku-ring-gai Council
Clyde	24/11/2021	02:55	CN81MI	Ku-ring-gai Council
Clyde	24/11/2021	02:58	XO79AO	Enfield Bulk
Clyde	24/11/2021	03:21	XN44IM	Canterbury-Bankstown Council
Clyde	24/11/2021	03:36	XN92TT	Enfield FrontLift
Clyde	24/11/2021	03:37	XN20QC	Earthpower Technologies-Site Divers
Clyde	24/11/2021	03:38	BK19BD	Enfield Bulk
Clyde	24/11/2021	03:39	XO75AX	Hornsby Council
Clyde	24/11/2021	03:50	CK29XA	JJ Richards & Sons Pty Ltd
Clyde	24/11/2021	03:52	CK24KZ	Enfield FrontLift
Clyde	24/11/2021	03:52	BM38QL	JJ Richards & Sons Pty Ltd
Clyde	24/11/2021	03:54	XN39HQ	Canterbury-Bankstown Council
Clyde	24/11/2021	04:08	CP08NQ	Enfield Bulk
Clyde	24/11/2021	04:13	XN48TB	Quality Wire Pty Ltd
Clyde	24/11/2021	04:41	BK19BD	Earthpower Technologies-Site Divers
Clyde	24/11/2021	04:43	XN97ZB	Quality Wire Pty Ltd
Clyde	24/11/2021	04:48	XN15BC	Enfield FrontLift
Clyde	24/11/2021	04:51	XO67CH	Enfield FrontLift
Clyde	24/11/2021	04:56	5URM	URM Environmental Services Pty Limi
Clyde	24/11/2021	05:00	BR90UA	JJ Richards & Sons Pty Ltd
Clyde	24/11/2021	05:16	XV54RG	Wastefree (Aust) Pty Ltd
Clyde	24/11/2021	05:25	XN26NX	Enfield FrontLift
Clyde	24/11/2021	05:28	XN54QT	Burwood Council - Trade Waste Servi
Clyde	24/11/2021	05:42	XN85HS	City of Ryde
Clyde	24/11/2021	05:54	URM424	Cumberland Council - Auburn
Clyde	24/11/2021	06:02	XO94BW	URM Environmental Services Pty Limi
Clyde	24/11/2021	06:07	XN44ML	Canterbury-Bankstown Council

Clyde	24/11/2021	06:15	XN92NP	JJ Richards & Sons Pty Ltd
Clyde	24/11/2021	06:24	CK24KZ	Enfield FrontLift
Clyde	24/11/2021	06:27	XN55BI	Canterbury-Bankstown Council
Clyde	24/11/2021	06:30	XN92TT	Enfield FrontLift
Clyde	24/11/2021	06:39	AV25CI	Cumberland Council - Auburn
Clyde	24/11/2021	06:44	CO41MK	Leichhardt Municipal Council
Clyde	24/11/2021	06:46	URM816	Cumberland Council - Auburn
Clyde	24/11/2021	06:49	XO79AO	Enfield Bulk
Clyde	24/11/2021	06:55	URM585	Lane Cove Council
Clyde	24/11/2021	06:59	XO92AH	City of Ryde
Clyde	24/11/2021	07:07	XO01AO	City of Ryde
Clyde	24/11/2021	07:10	XN13RO	Enfield Bulk
Clyde	24/11/2021	07:11	CD28PG	City of Ryde
Clyde	24/11/2021	07:15	CJ32RX	Fairfield City Council-waste
Clyde	24/11/2021	07:19	XN55UV	Leichhardt Municipal Council
Clyde	24/11/2021	07:19	XN79YD	City of Ryde
Clyde	24/11/2021	07:23	URM840	Cumberland Council - Auburn
Clyde	24/11/2021	07:23	XN26YU	City of Ryde
Clyde	24/11/2021	07:26	CB46UN	City of Ryde
Clyde	24/11/2021	07:30	XO94BW	URM Environmental Services Pty Limi
Clyde	24/11/2021	07:33	XN70ZM	City of Ryde
Clyde	24/11/2021	07:35	XN23SP	Doyle Bros t/a Faralga Pty Ltd
Clyde	24/11/2021	07:38	URM059	Hunter's Hill Council
Clyde	24/11/2021	07:48	XO11AB	Hornsby Council
Clyde	24/11/2021	07:49	URM213	Lane Cove Council
Clyde	24/11/2021	07:51	AA11RS	Ku-ring-gai Council
Clyde	24/11/2021	07:52	XN04ZL	City of Ryde
Clyde	24/11/2021	07:56	BN31GB	Ashfield Council
Clyde	24/11/2021	07:57	XQ83GB	Burwood Council
Clyde	24/11/2021	07:57	XN85HS	City of Ryde
Clyde	24/11/2021	08:01	CF33PN	City of Canada Bay Council - Domestic
Clyde	24/11/2021	08:02	URM049	Hunter's Hill Council
Clyde	24/11/2021	08:03	XQ82GB	Burwood Council
Clyde	24/11/2021	08:16	CF65GX	Cumberland Council - Auburn
Clyde	24/11/2021	08:19	XN37IM	Strathfield Municipal Council
Clyde	24/11/2021	08:20	URM820	Cumberland Council - Auburn
Clyde	24/11/2021	08:23	URM604	Lane Cove Council
Clyde	24/11/2021	08:24	XQ81GB	Burwood Council
Clyde	24/11/2021	08:25	URM603	Lane Cove Council
Clyde	24/11/2021	08:38	URM848	Cumberland Council - Auburn
Clyde	24/11/2021	08:48	CQ75GG	City of Canada Bay Council - TS&O
Clyde	24/11/2021	08:51	CO41MK	Leichhardt Municipal Council
Clyde	24/11/2021	08:52	XN15BC	Enfield FrontLift
Clyde	24/11/2021	08:54	BL54KN	Leichhardt Municipal Council
Clyde	24/11/2021	09:00	XN51ZK	Hornsby Council
Clyde	24/11/2021	09:02	CE57RY	City of Canada Bay Council - Domestic
Clyde	24/11/2021	09:07	XN65ZF	Hornsby Council

Clyde	24/11/2021	09:07	URM577	Hunter's Hill Council
Clyde	24/11/2021	09:10	CN92MI	Ku-ring-gai Council
Clyde	24/11/2021	09:12	CI27XY	Leichhardt Municipal Council
Clyde	24/11/2021	09:14	XN88UY	Leichhardt Municipal Council
Clyde	24/11/2021	09:14	XO12AB	Hornsby Council
Clyde	24/11/2021	09:15	CE58RY	City of Canada Bay Council - Domestic
Clyde	24/11/2021	09:17	CP80RB	Canterbury-Bankstown Council
Clyde	24/11/2021	09:17	CK29AL	Ashfield Council
Clyde	24/11/2021	09:19	XN78ZF	Hornsby Council
Clyde	24/11/2021	09:19	XN26KZ	Enfield RearLift
Clyde	24/11/2021	09:21	XN50ZK	Hornsby Council
Clyde	24/11/2021	09:22	CB46UN	City of Ryde
Clyde	24/11/2021	09:24	XV54RG	Wastefree (Aust) Pty Ltd
Clyde	24/11/2021	09:25	XN85HS	City of Ryde
Clyde	24/11/2021	09:26	XN92NP	JJ Richards & Sons Pty Ltd
Clyde	24/11/2021	09:28	XO10AG	Hornsby Council
Clyde	24/11/2021	09:29	CM18AV	JJ Richards & Sons Pty Ltd
Clyde	24/11/2021	09:31	XN79ZF	Hornsby Council
Clyde	24/11/2021	09:31	CJ18SV	Canterbury-Bankstown Council
Clyde	24/11/2021	09:32	CP19KQ	Ku-ring-gai Council
Clyde	24/11/2021	09:34	CK68TO	Ku-ring-gai Council
Clyde	24/11/2021	09:41	URM424	Cumberland Council - Auburn
Clyde	24/11/2021	09:41	XN44ML	Canterbury-Bankstown Council
Clyde	24/11/2021	09:42	CN84MI	Ku-ring-gai Council
Clyde	24/11/2021	09:42	URM898	Cumberland Council - Auburn
Clyde	24/11/2021	09:44	XN60GO	Enfield FrontLift
Clyde	24/11/2021	09:46	XO92AH	City of Ryde
Clyde	24/11/2021	09:46	URM585	Lane Cove Council
Clyde	24/11/2021	09:48	XN15KU	Canterbury-Bankstown Council
Clyde	24/11/2021	09:48	CM73SQ	Ku-ring-gai Council
Clyde	24/11/2021	09:59	CQ49QR	Enfield RearLift
Clyde	24/11/2021	10:01	URM816	Cumberland Council - Auburn
Clyde	24/11/2021	10:04	CN93MI	Ku-ring-gai Council
Clyde	24/11/2021	10:05	XO01AO	City of Ryde
Clyde	24/11/2021	10:06	XN47AO	Canterbury-Bankstown Council
Clyde	24/11/2021	10:06	XN83EV	Cumberland Council - Auburn
Clyde	24/11/2021	10:09	CL43KU	Enfield RearLift
Clyde	24/11/2021	10:12	CK41CQ	Cumberland Council - Auburn
Clyde	24/11/2021	10:15	CK10EJ	Enfield RearLift
Clyde	24/11/2021	10:17	XN55BI	Canterbury-Bankstown Council
Clyde	24/11/2021	10:17	CJ77ZS	Capital City Waste Services Pty Ltd
Clyde	24/11/2021	10:24	XN78LI	Fairfield City Council-waste
Clyde	24/11/2021	10:24	XN17XO	Canterbury-Bankstown Council
Clyde	24/11/2021	10:25	CM72SQ	Ku-ring-gai Council
Clyde	24/11/2021	10:30	XN34EB	JJ Richards & Sons Pty Ltd
Clyde	24/11/2021	10:36	CL19PZ	Enfield RearLift
Clyde	24/11/2021	10:37	XN61FN	Enfield FrontLift

Clyde	24/11/2021	10:39	CF33PN	City of Canada Bay Council - Domestic
Clyde	24/11/2021	10:40	XN05XO	Canterbury-Bankstown Council
Clyde	24/11/2021	10:42	XN89XQ	Strathfield Municipal Council
Clyde	24/11/2021	10:44	CM75VP	URM Environmental Services Pty Limi
Clyde	24/11/2021	10:48	BQ60WN	JJ Richards & Sons Pty Ltd
Clyde	24/11/2021	10:48	CF03GA	City of Canada Bay Council - Domestic
Clyde	24/11/2021	10:51	CE65RY	City of Canada Bay Council - Domestic
Clyde	24/11/2021	10:52	CN99LG	Ku-ring-gai Council
Clyde	24/11/2021	10:52	CK66UK	Ku-ring-gai Council
Clyde	24/11/2021	10:53	CN98LG	Ku-ring-gai Council
Clyde	24/11/2021	10:56	CM57DM	Strathfield Municipal Council
Clyde	24/11/2021	10:58	URM898	Cumberland Council - Auburn
Clyde	24/11/2021	11:03	CQ07CK	Veolia Newcastle Frontlift
Clyde	24/11/2021	11:03	XO67CH	Enfield FrontLift
Clyde	24/11/2021	11:04	XN37IM	Strathfield Municipal Council
Clyde	24/11/2021	11:06	XN60NJ	Fairfield City Council-waste
Clyde	24/11/2021	11:10	CD28PG	City of Ryde
Clyde	24/11/2021	11:11	XN30RD	Strathfield Municipal Council
Clyde	24/11/2021	11:13	CE72ZF	City of Canada Bay Council - Domestic
Clyde	24/11/2021	11:14	XN26YU	City of Ryde
Clyde	24/11/2021	11:18	XN26NX	Enfield FrontLift
Clyde	24/11/2021	11:19	CK24KZ	Enfield FrontLift
Clyde	24/11/2021	11:20	CE28GN	Cumberland Council - Auburn
Clyde	24/11/2021	11:27	URM818	Cumberland Council - Auburn
Clyde	24/11/2021	11:28	XN95AR	Lane Cove Council
Clyde	24/11/2021	11:30	CN73MI	Ku-ring-gai Council
Clyde	24/11/2021	11:30	CN76MI	Ku-ring-gai Council
Clyde	24/11/2021	11:31	CJ77ZS	Capital City Waste Services Pty Ltd
Clyde	24/11/2021	11:32	URM848	Cumberland Council - Auburn
Clyde	24/11/2021	11:34	URM678	Cumberland Council - Auburn
Clyde	24/11/2021	11:35	URM424	Cumberland Council - Auburn
Clyde	24/11/2021	11:37	URM811	Cumberland Council - Auburn
Clyde	24/11/2021	11:38	XN04ZL	City of Ryde
Clyde	24/11/2021	11:39	URM816	Cumberland Council - Auburn
Clyde	24/11/2021	11:41	URM849	Cumberland Council - Auburn
Clyde	24/11/2021	11:41	BN31GB	Ashfield Council
Clyde	24/11/2021	11:42	URM820	Cumberland Council - Auburn
Clyde	24/11/2021	11:43	URM814	Cumberland Council - Auburn
Clyde	24/11/2021	11:43	URM817	Cumberland Council - Auburn
Clyde	24/11/2021	11:45	URM840	Cumberland Council - Auburn
Clyde	24/11/2021	11:51	URM444	URM Environmental Services Pty Limi
Clyde	24/11/2021	12:07	CM73SQ	Ku-ring-gai Council
Clyde	24/11/2021	12:15	XN70ZM	City of Ryde
Clyde	24/11/2021	12:18	BX80PP	Cumberland Council - Auburn
Clyde	24/11/2021	12:18	XN61LR	Fairfield City Council-waste
Clyde	24/11/2021	12:32	CL42KU	Enfield RearLift
Clyde	24/11/2021	12:36	XO55DB	Enfield FrontLift

Clyde	24/11/2021	12:45	CE71CO	Enfield RearLift
Clyde	24/11/2021	12:47	CI69WY	Enfield FrontLift
Clyde	24/11/2021	12:50	URM424	Cumberland Council - Auburn
Clyde	24/11/2021	12:50	CK54KT	Enfield RearLift
Clyde	24/11/2021	12:51	CK29AL	Ashfield Council
Clyde	24/11/2021	12:52	XO36AI	JJ Richards & Sons Pty Ltd
Clyde	24/11/2021	12:52	CE72ZF	City of Canada Bay Council - Domestic
Clyde	24/11/2021	12:53	URM041	Hunter's Hill Council
Clyde	24/11/2021	12:55	5URM	URM Environmental Services Pty Limi
Clyde	24/11/2021	12:58	CK24KZ	Enfield FrontLift
Clyde	24/11/2021	13:01	XN92TT	Enfield FrontLift
Clyde	24/11/2021	13:06	CK68TO	Ku-ring-gai Council
Clyde	24/11/2021	13:27	XN00UC	City of Canada Bay Council - Domestic
Clyde	24/11/2021	13:29	XN48SP	Enfield RearLift
Clyde	24/11/2021	13:31	CE57RY	City of Canada Bay Council - Domestic
Clyde	24/11/2021	13:36	CE58RY	City of Canada Bay Council - Domestic
Clyde	24/11/2021	13:39	BJB386	Enfield Bulk
Clyde	24/11/2021	13:40	CE65RY	City of Canada Bay Council - Domestic
Clyde	24/11/2021	13:43	XO10AG	Hornsby Council
Clyde	24/11/2021	13:45	XN50ZK	Hornsby Council
Clyde	24/11/2021	13:46	XN78ZF	Hornsby Council
Clyde	24/11/2021	13:49	XN79ZF	Hornsby Council
Clyde	24/11/2021	13:49	XO12AB	Hornsby Council
Clyde	24/11/2021	13:50	XN65ZF	Hornsby Council
Clyde	24/11/2021	13:50	XN51ZK	Hornsby Council
Clyde	24/11/2021	13:56	CN98LG	Ku-ring-gai Council
Clyde	24/11/2021	13:57	CN26UW	Enfield Bulk
Clyde	24/11/2021	14:04	BN31GB	Ashfield Council
Clyde	24/11/2021	14:11	CL79JV	Enfield FrontLift
Clyde	24/11/2021	14:15	XO75AX	Hornsby Council
Clyde	24/11/2021	14:16	CN99LG	Ku-ring-gai Council
Clyde	24/11/2021	14:21	CM72SQ	Ku-ring-gai Council
Clyde	24/11/2021	14:22	CK66UK	Ku-ring-gai Council
Clyde	24/11/2021	14:51	XN96LU	Enfield Bulk
Clyde	24/11/2021	15:05	BT52CL	External Bulk - No Jobs Available
Clyde	24/11/2021	16:23	XN48SP	Enfield RearLift
Clyde	24/11/2021	16:24	XN11KY	Enfield Bulk
Clyde	24/11/2021	16:34	CL79JV	Enfield FrontLift
Clyde	24/11/2021	16:41	AZ77RA	Enfield RearLift
Clyde	24/11/2021	16:41	XO55DB	Enfield FrontLift
Clyde	24/11/2021	18:21	XN96LU	Enfield Bulk
Clyde	24/11/2021	18:23	CL79JV	Enfield FrontLift
Clyde	24/11/2021	18:33	XN58OU	Enfield FrontLift
Clyde	24/11/2021	19:01	CO84BV	Doyle Bros t/a Faralga Pty Ltd
Clyde	24/11/2021	19:49	CI27XY	Leichhardt Municipal Council
Clyde	24/11/2021	19:51	XN88UY	Leichhardt Municipal Council
Clyde	24/11/2021	20:15	XN55UV	Leichhardt Municipal Council

Clyde	24/11/2021	20:44	XN09KG	J & S Pace
Clyde	24/11/2021	20:46	XN46BG	Waste Clear Pty Ltd
Clyde	24/11/2021	20:59	CL79JV	Enfield FrontLift
Clyde	24/11/2021	21:02	XN30SG	Enfield Bulk
Clyde	24/11/2021	21:17	XN96LU	Enfield Bulk
Clyde	24/11/2021	21:55	XN16DF	CBD Waste & Recycling Pty Ltd
Clyde	24/11/2021	22:09	XN58OU	Enfield FrontLift
Clyde	24/11/2021	22:15	XN11KY	Enfield Bulk
Clyde	24/11/2021	22:15	XN15OI	Enfield RearLift
Clyde	24/11/2021	22:45	XN13OH	Doyle Bros t/a Faralga Pty Ltd
Clyde	24/11/2021	22:48	XN12OH	Doyle Bros t/a Faralga Pty Ltd
Clyde	24/11/2021	22:49	XN96LU	Enfield Bulk
Clyde	24/11/2021	22:58	BV17AL	Wastefree (Aust) Pty Ltd
Clyde	24/11/2021	23:02	CAL068	Enfield RearLift
Clyde	24/11/2021	23:04	CK24KZ	Enfield FrontLift
Clyde	24/11/2021	23:13	XN11OH	Doyle Bros t/a Faralga Pty Ltd
Clyde	24/11/2021	23:27	CL78JV	Enfield RearLift
Clyde	24/11/2021	23:37	XN96LU	Enfield Bulk
Clyde	24/11/2021	23:38	XO55DB	Enfield FrontLift

Appendix D - Truck Noise Measurement Results

NOISE LEVEL MEASUREMENT RESULTS								
Time In	Company	Rego No	Make	Lift	Exhaust	LA Max	Impeded (Y/N)	Comment
09:14	Leichhardt Municipal Council	XN88UY				81.9	N	
09:14	Hornsby Council	XO12AB		SIDE		80.1	N	
09:15	City of Canada Bay Council - Domest	CE58RY		SIDE		73.6	N	
09:17	Canterbury-Bankstown Council	CP80RB	IVECO	SIDE		81.9	N	
09:17	Ashfield Council	CK29AL	IVECO	SIDE	FRONT SIDE	84	N	
09:19	Hornsby Council	XN78ZF	DENNIS		SIDE	81.6	N	
09:19	Enfield RearLift	XN26KZ	ISUZU	REAR	SIDE	76.3	N	
09:21	Hornsby Council	XN50ZK	DENNIS			77.4	N	
09:22	City of Ryde	CB46UN		REAR		71.1	N	
09:24	Wastefree (Aust) Pty Ltd	XV54RG	FUSO			70.8	N	Small truck
09:25	City of Ryde	XN85HS		REAR	FRONT SIDE	75.2	N	
09:26	JJ Richards & Sons Pty Ltd	XN92NP		FRONT		75.3	N	
09:28	Hornsby Council	XO10AG	DENNIS	SIDE		73.9	N	
09:29	JJ Richards & Sons Pty Ltd	CM18AV		REAR		75.1	N	
09:31	Hornsby Council	XN79ZF	DENNIS	SIDE		75.9	N	
09:31	Canterbury-Bankstown Council	CJ18SV	IVECO	REAR	FRONT SIDE	76	N	
09:32	Ku-ring-gai Council	CP19KQ		REAR		76.6	N	
09:34	Ku-ring-gai Council	CK68TO	IVECO	SIDE	FRONT SIDE	77.9	N	
09:41	Cumberland Council - Auburn	URM424		REAR	FRONT SIDE	73.3	N	
09:41	Canterbury-Bankstown Council	XN44ML	IVECO	REAR		75.7	N	
09:42	Ku-ring-gai Council	CN84MI				69.9	Y	
09:42	Cumberland Council - Auburn	URM898		SIDE		74.6	Y	
09:44	Enfield FrontLift	XN60GO		FRONT	SIDE	73.4	N	
09:46	City of Ryde	XO92AH	DENNIS	REAR		78.2	N	
09:46	Lane Cove Council	URM585		REAR	REAR	70.5	N	
09:48	Canterbury-Bankstown Council	XN15KU	IVECO	SIDE	FRONT SIDE	81.9	N	
09:48	Ku-ring-gai Council	CM73SQ	IVECO	SIDE		78.5	N	
09:59	Enfield RearLift	CQ49QR	ISUZU	REAR		69	N	
10:01	Cumberland Council - Auburn	URM816	IVECO	REAR	FRONT SIDE	79.3	N	
10:04	Ku-ring-gai Council	CN93MI	MITSUBISHI	REAR	SIDE	73.4	N	Small truck

NOISE LEVEL MEASUREMENT RESULTS								
Time In	Company	Rego No	Make	Lift	Exhaust	LA Max	Impeded (Y/N)	Comment
10:05	City of Ryde	XO01AO	DENNIS	REAR	SIDE	80.3	N	
10:06	Canterbury-Bankstown Council	XN47AO	IVECO	REAR	FRONT SIDE	79.1	N	
10:06	Cumberland Council - Auburn	XN83EV		REAR	SIDE	71.5	N	
10:09	Enfield RearLift	CL43KU	ISUZU	REAR	SIDE	72.7	N	
10:12	Cumberland Council - Auburn	CK41CQ	ISUZU	REAR	FRONT SIDE	74.6	N	
10:15	Enfield RearLift	CK10EJ	ISUZU	REAR	SIDE	83.4	N	
10:17	Canterbury-Bankstown Council	XN55BI	IVECO	SIDE		74.2	N	
10:17	Capital City Waste Services Pty Ltd	CJ77ZS	HINO	REAR		71.2	N	Small truck
10:24	Fairfield City Council-waste	XN78LI	ISUZU	REAR		75.1	N	
10:24	Canterbury-Bankstown Council	XN17XO	IVECO	SIDE		73.6	N	
10:25	Ku-ring-gai Council	CM72SQ	IVECO	SIDE	FRONT SIDE	77.9	N	
10:30	JJ Richards & Sons Pty Ltd	XN34EB		REAR	SIDE	77.6	N	
10:36	Enfield RearLift	CL19PZ	ISUZU	REAR		74.8	N	
10:37	Enfield FrontLift	XN61FN		FRONT	SIDE	74.9	N	
10:39	City of Canada Bay Council - Domest	CF33PN	DENNIS	REAR		75.9	N	
10:40	Canterbury-Bankstown Council	XN05XO	IVECO	SIDE	SIDE	76.1	N	
10:42	Strathfield Municipal Council	XN89XQ		SIDE	SIDE	69.1	N	
10:44	URM Environmental Services Pty Limi	CM75VP	ISUZU	REAR	SIDE	77.3	N	
10:48	JJ Richards & Sons Pty Ltd	BQ60WN	IVECO	REAR	FRONT SIDE	78.9	N	
10:48	City of Canada Bay Council - Domest	CF03GA	IVECO	REAR	SIDE	73.1	N	
10:51	City of Canada Bay Council - Domest	CE65RY	IVECO	SIDE	FRONT SIDE	73.6	N	
10:52	Ku-ring-gai Council	CN99LG	IVECO	REAR	SIDE	78.5	N	
10:52	Ku-ring-gai Council	CK66UK	IVECO	REAR	SIDE	74.9	N	
10:53	Ku-ring-gai Council	CN98LG	IVECO	SIDE	FRONT SIDE	73.5	Y	
10:56	Strathfield Municipal Council	CM57DM	MERCEDES	REAR	FRONT SIDE	71.4	N	
10:58	Cumberland Council - Auburn	URM898	IVECO	SIDE	FRONT SIDE	76.9	N	
11:03	Veolia Newcastle Frontlift	CQ07CK		FRONT		74.4	N	
11:03	Enfield FrontLift	XO67CH	VOLVO	FRONT		71.8	N	
11:04	Strathfield Municipal Council	XN37IM	HINO	REAR	SIDE	77.8	N	
11:06	Fairfield City Council-waste	XN60NJ	IVECO	REAR	FRONT SIDE	78.6	N	

NOISE LEVEL MEASUREMENT RESULTS								
Time In	Company	Rego No	Make	Lift	Exhaust	LA Max	Impeded (Y/N)	Comment
11:10	City of Ryde	CD28PG	IVECO	SIDE	FRONT SIDE	80	N	
11:11	Strathfield Municipal Council	XN30RD	HINO	SIDE	SIDE	79.2	N	
11:13	City of Canada Bay Council - Domestic	CE72ZF	DENNIS	REAR	SIDE	75.2	N	
11:14	City of Ryde	XN26YU	IVECO	SIDE		78.1	N	
11:18	Enfield FrontLift	XN26NX	VOLVO	FRONT		77.8	N	
11:19	Enfield FrontLift	CK24KZ	VOLVO	FRONT		73.2	N	
11:20	Cumberland Council - Auburn	CE28GN	IVECO	REAR	FRONT SIDE	78.7	N	
11:27	Cumberland Council - Auburn	URM818	IVECO	SIDE	FRONT SIDE	78.1	N	
11:28	Lane Cove Council	XN95AR	IVECO	REAR	FRONT SIDE	76.9	N	
11:30	Ku-ring-gai Council	CN73MI	MAZDA	REAR		68.8	N	
11:30	Ku-ring-gai Council	CN76MI	MAZDA	REAR		69.2	N	
11:31	Capital City Waste Services Pty Ltd	CJ77ZS	HINO	REAR	SIDE	71.5	N	
11:32	Cumberland Council - Auburn	URM848	IVECO	SIDE	FRONT SIDE	78.4	N	
11:34	Cumberland Council - Auburn	URM678	IVECO	SIDE	FRONT SIDE	80.4	N	
11:35	Cumberland Council - Auburn	URM424		REAR	FRONT SIDE	74.6	N	
11:37	Cumberland Council - Auburn	URM811	IVECO	SIDE	FRONT SIDE	79.4	N	
11:38	City of Ryde	XN04ZL	IVECO	SIDE	FRONT SIDE	73.5	Y	
11:39	Cumberland Council - Auburn	URM816	IVECO	SIDE	FRONT SIDE	81	N	
11:41	Cumberland Council - Auburn	URM849	IVECO	SIDE	FRONT SIDE	82.9	N	
11:41	Ashfield Council	BN31GB	DENNIS	SIDE		82.1	N	
11:42	Cumberland Council - Auburn	URM820	IVECO	SIDE	FRONT SIDE	74	Y	
11:43	Cumberland Council - Auburn	URM814	IVECO	SIDE	FRONT SIDE	76.4	Y	
11:43	Cumberland Council - Auburn	URM817	IVECO	SIDE	FRONT SIDE	79.4	Y	
11:45	Cumberland Council - Auburn	URM840	IVECO	SIDE	FRONT SIDE	75	Y	
11:51	URM Environmental Services Pty Limi	URM444		REAR	FRONT SIDE	80.9	N	
12:07	Ku-ring-gai Council	CM73SQ	IVECO	SIDE	FRONT SIDE	75.8	N	
12:15	City of Ryde	XN70ZM	IVECO	SIDE	FRONT SIDE	75.9	N	
12:18	Cumberland Council - Auburn	BX80PP	HINO	REAR		73.7	N	
12:18	Fairfield City Council-waste	XN61LR		REAR		74.8	N	
12:32	Enfield RearLift	CL42KU	ISUZU	REAR		74	N	

NOISE LEVEL MEASUREMENT RESULTS								
Time In	Company	Rego No	Make	Lift	Exhaust	LA Max	Impeded (Y/N)	Comment
12:36	Enfield FrontLift	XO55DB	VOLVO	FRONT	SIDE	75.2	N	
12:45	Enfield RearLift	CE71CO	ISUZU	REAR		79.2	N	
12:47	Enfield FrontLift	CI69WY	VOLVO	FRONT	SIDE	75.2	N	
12:50	Cumberland Council - Auburn	URM424		REAR	FRONT SIDE	81.1	N	
12:50	Enfield RearLift	CK54KT	ISUZU	REAR	SIDE	76.3	N	
12:51	Ashfield Council	CK29AL	IVECO	SIDE	FRONT SIDE	84.1	N	
12:52	JJ Richards & Sons Pty Ltd	XO36AI	VOLVO	REAR	FRONT SIDE	75.9	N	
12:52	City of Canada Bay Council - Domestic	CE72ZF		REAR		79.5	N	
12:53	Hunter's Hill Council	URM041	MITSUBISHI	REAR	FRONT SIDE	70	N	
12:55	URM Environmental Services Pty Limi	5URM	VOLVO	FRONT	SIDE	78.7	N	
12:58	Enfield FrontLift	CK24KZ		FRONT	FRONT SIDE	75.6	N	
13:01	Enfield FrontLift	XN92TT	VOLVO	FRONT	SIDE	73.2	N	
13:06	Ku-ring-gai Council	CK68TO		SIDE	FRONT SIDE	80.5	N	
13:27	City of Canada Bay Council - Domestic	XN00UC	BUCHER	SIDE	FRONT SIDE	77.8	N	
13:29	Enfield RearLift	XN48SP	ISUZU	REAR	SIDE	72.6	N	
	Measured Truck Movements		Total Impeded Truck Movements					
	105		8					
	Total Truck Movements (24/11/21)		Unimpeded Measurement					
	253		97					
	Percent of truck movements		Total Small Truck Measurements					
	41.50%		3					

Appendix D4 - Pest & Vermin Reports

SERVICE REPORT

22/01/2021

Service Performed by:

EXPERT JUDGEMENT

PEST MANAGEMENT PTY LTD

PO Box A25, ENFIELD SOUTH NSW 2133

enquiries@expertjudgementpest.com.au

Telephone: (02) 9715 5270

ABN 63 081 548 861

Property Detail:

Veolia Environmental Services (Australia) Pty Ltd
Clyde Transfer Terminal
322 Parramatta Road
AUBURN NSW 2144

Service Details:

A quarterly routine pest control service to internal and external areas for cockroaches, ants, spiders and rodents.

Inspected and treated all internal areas of the shed, pit area and external area by using Roban rodent bait and Termidore spray.

Inspected and treated office area, toilets and internal areas by using Goliath cockroach gel and Coopex dust spot spray.

Ant activity found in external area and treated by using Termidore spray.

Ant activity found in kitchen and office area and treated by using Coopex dust spot spray.

SERVICE REPORT

27/04/2021

Service Performed by:

EXPERT JUDGEMENT

PEST MANAGEMENT PTY LTD

PO Box A25, ENFIELD SOUTH NSW 2133

enquiries@expertjudgementpest.com.au

Telephone: (02) 9715 5270

ABN 63 081 548 861

Property Detail:

Veolia Environmental Services (Australia) Pty Ltd
Clyde Transfer Terminal
322 Parramatta Road
AUBURN NSW 2144

Service Details:

A quarterly routine pest control service to internal and external areas for cockroaches, ants, spiders and rodents.

Inspected and treated all areas, shed, pit area and external areas by using Talon rodent bait and Cislin 25 spray.

Inspected and treated offices and internal areas by using Goliath cockroach gel and Coopex dust spot spray.

Rodent activity found in external area and treated by using Talon rodent bait.

SERVICE REPORT

27/08/2021

Service Performed by:

EXPERT JUDGEMENT

PEST MANAGEMENT PTY LTD

PO Box A25, ENFIELD SOUTH NSW 2133

enquiries@expertjudgementpest.com.au

Telephone: (02) 9715 5270

ABN 63 081 548 861

Property Detail:

Veolia Environmental Services (Australia) Pty Ltd
Clyde Transfer Terminal
322 Parramatta Road
AUBURN NSW 2144

Service Details:

A quarterly routine pest control service to internal and external areas for cockroaches, ants, spiders and rodents.

Inspected and treated all areas, shed, pit area and external areas by using Talon rodent bait and Cislin 25 spray.

Inspected and treated offices and internal areas by using Goliath cockroach gel and Coopex dust spot spray.

Light spider activity found in external area and treated using Cislin 25 spray.

SERVICE REPORT

18/11/2021

Service Performed by:

EXPERT JUDGEMENT

PEST MANAGEMENT PTY LTD

PO Box A25, ENFIELD SOUTH NSW 2133

enquiries@expertjudgementpest.com.au

Telephone: (02) 9715 5270

ABN 63 081 548 861

Property Detail:

Veolia Environmental Services (Australia) Pty Ltd
Clyde Transfer Terminal
322 Parramatta Road
AUBURN NSW 2144

Service Details:

A quarterly routine pest control service to internal
and external areas for cockroaches, ants, spiders
and rodents.

Inspected and treated all areas, shed, pit area and
external areas by using Roban rodent bait and Cislin
25 spray.

Inspected and treated offices, staff rooms, kitchen
and toilets by using Goliath cockroach gel and Coopex
dust spot spray.

Light rodent activity found in shed area and treated
by using Roban rodent bait.